

10928

Original

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10928

Form 504 U. S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY  <b>DESCRIPTIVE REPORT</b>	
Type of Survey	PLANIMETRIC
Field No.	Office No. T-10928
LOCALITY State ALABAMA General locality MOBILE RIVER Locality CREOLA	
<u>1957 - 1961</u> CHIEF OF PARTY Joseph K. Wilson, Chief Field Party V. R. Sobieralski, Tampa District Office	
LIBRARY & ARCHIVES  DATE	

DESCRIPTIVE REPORT - DATA RECORD

T - 10928

Project No. (II): **PH-5704**      Quadrangle Name (IV):

Field Office (II): **Pascagonla, Miss and  
Fairhope, Ala.**

Chief of Party: **Joseph K. Wilson**

Photogrammetric Office (III): **Tampa, Fla.**

Officer-in-Charge: **V. R. Sobieralski**

Instructions dated (II) (III): **II 23 June 1958 (Field)  
10 Feb. 1959 (Field Suppl.1)**

Copy filed in Division of  
Photogrammetry (IV)

**III 7 Apr. 1959 (Office)**

**9 Sept. 1959 (Stereo Bridging)**

**17 Aug. 1959 (Office Suppl.1) 6 Oct. 1959 (Office Suppl.1)**

**17 Aug. 1959 (Field Suppl.2) 10 Nov. 1959 (Field and Office Suppl.3)**

**Location of Aids to Navigation dated 7 Oct. 1959**

Method of Compilation (III): **Graphic**

Manuscript Scale (III): **1:10,000**

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): **None**

Date received in Washington Office (IV):

**NOV 3 1961**

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV):

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): **N.A. 1927**

Vertical Datum (III): **M.H.W.**

~~Mean Sea Level~~ except as follows:  
Elevations shown as (25) refer to mean high water  
Elevations shown as (5) refer to sounding datum  
i.e., mean low water or mean lower low water

Reference Station (III): **270 (A.G.S.) 1939**

Lat.:

Long.:

Adjusted  
~~Unadjusted~~

Plane Coordinates (IV):

State: **Ala.**

Zone: **West**

Y= **329,860.31 Ft.**

X= **326,405.04 Ft.**

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office,  
or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.



DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): **W. M. Reynolds**  
**M. A. Stewart**  
**Joseph K. Wilson** Date: **July 1959**

Planetable contouring by (II): **Inapplicable** Date:

Completion Surveys by (II): **W V Ho 11** Date: **Mar 1961**

Mean High Water Location (III) (State date and method of location): **Air Photo Compilation**  
**Date of Photography: 20 Nov. 1957**

Projection and Grids ruled by (IV): **P.T.D. (W.O.)** Date: **Aug. 1959**

Projection and Grids checked by (IV): **Shoup (W.O.)** Date: **Aug. 1959**

Control plotted by (III): **R. J. Pate** Date: **Oct. 1959**

Control checked by (III): **R. E. Smith Jr.** Date: **Oct. 1959**

Radial Plot ~~of compilation~~ Date: **Aug. 1960**  
Control extension by (III): **R. R. Wagner**

Planimetry Date:  
Stereoscopic Instrument compilation (III): **Inapplicable**  
Contours Date:

Manuscript delineated by (III): **E. T. Ogilby** Date: **Nov. 1960**

Photogrammetric Office Review <sup>of compilation</sup> by (III): **I. I. Saperstein** Date: **Nov. 1960**

Elevations on Manuscript Date:  
checked by (II) (III): **Inapplicable**

DESCRIPTIVE REPORT - DATA RECORD

Camera (kind or source) (III): **C&GS 9-lens**

Number	Date	PHOTOGRAPHS (III)			Stage of Tide
		Time	Scale		
56948	20 Nov. 1957	10:36	1:10,000	Inapplicable	
56949	" "	10:36	"	"	
56950	" "	10:37	"	"	
56954	" "	10:43	"	"	
56955	" "	10:43	"	"	

Tide (III)  
**Inapplicable**

Ratio of Ranges	Mean Range	Spring Range

Reference Station:  
Subordinate Station:  
Subordinate Station:

Washington Office Review by (IV):

Date:

Final Drafting by (IV): **R. Dossett (Tampa District Office)**

Date: **August 1961**

Final Drafting reviewed by: **R.R.Wagner (Tampa District Office)**

August 1961

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): **16**

Shoreline (More than 200 meters to opposite shore) (III): **1 linear mile**

~~Shoreline (Less than 200 meters to opposite shore) (III):~~

Control Leveling - Miles (II): **Inapplicable**

Number of Triangulation Stations searched for (II): **22\*** Recovered: **7\*\*** Identified: **5\*\*\***

Number of BMs searched for (II): **0** Recovered: **0** Identified: **0**

Number of Recoverable Photo Stations established (III): **0**

Number of Temporary Photo Hydro Stations established (III): **0**

Remarks: **\* Including 12 Stations outside project**

**\*\* " 6 " " " , one of which was later classified**  
**\*\*\* " 4 " " " " " " " " " destroyed**

COMPILATION RECORD

COMPLETION  
DATE

REMARKS

All planimetry compiled

July 1959

Superseded

Revised from alongshore field edit May 1961



FIELD INSPECTION REPORT  
 Maps T-10928 thru T-10931  
 Project Ph-5704

2. AREAL FIELD INSPECTION

These maps are located in southwestern Alabama and just north of the city of Mobile.

There are four incorporated towns within the limits of these sheets; namely: Saraland, Satsuma, Chickasaw and a part of the town of Prichard.

Maps T-10928 and T-10929 are sparsely settled except for the area immediately adjacent to the highways. Maps T-10930 and T-10931 are highly industrialized as they are in the suburbs of Mobile. The area adjacent to Mobile River is primarily marsh and swamp.

The area is served by a good network of federal and state highways, three railroads and a deep water channel to the gulf.

Field Inspection has been accomplished on the following nine-lens photographs:

56826, 56827, 56828, 56840, 56841, 56842, 56942, 56943, 56944, 56945, 56946, 56947, 56948, 56949, 56950, 56954, 56955, 56956, 56958, 56959, 56960 and 56961.

The 1957 nine-lens photographs were of fair quality. Some prints were very clear while others were slightly distorted. The field inspection is believed to be complete and all phases adequately indicated.

3. HORIZONTAL CONTROL

All Coast and Geodetic Survey and Alabama Geodetic Survey Stations have been searched for and reported on form 526. This includes numerous stations outside the limits of these maps.

The following stations have been reported on form 526 as "destroyed", "lost", or "not recovered":

T-10928

109, Ala. Geod. S., 1938  
 110, Ala. Geod. S., 1938  
 111, Ala. Geod. S., 1938  
 112, Ala. Geod. S., 1938  
 113, Ala. Geod. S., 1938  
 114, Ala. Geod. S., 1938  
 115, Ala. Geod. S., 1938  
 116, Ala. Geod. S., 1938  
 117, Ala. Geod. S., 1938  
 119, Ala. Geod. S., 1938  
 143, Ala. Geod. S., 1938  
 271, Ala. Geod. S., 1939  
 273, Ala. Geod. S., 1939  
 276, Ala. Geod. S., 1939  
 277, Ala. Geod. S., 1939  
 278, Ala. Geod. S., 1939

T-10929

104, Ala. Geod. S., 1938  
 105, Ala. Geod. S., 1938  
 106, Ala. Geod. S., 1938  
 107, Ala. Geod. S., 1938  
 236, Ala. Geod. S., 1939

237, Ala. Geod. S., 1939  
 238, Ala. Geod. S., 1939  
 239, Ala. Geod. S., 1939

T-10930

100, Ala. Geod. S., 1938  
 101, Ala. Geod. S., 1938  
 102, Ala. Geod. S., 1938  
 103, Ala. Geod. S., 1938  
 136, Ala. Geod. S., 1939  
 286, Ala. Geod. S., 1939  
 287, Ala. Geod. S., 1939  
 288, Ala. Geod. S., 1939  
 289, Ala. Geod. S., 1939  
 290, Ala. Geod. S., 1939  
 291, Ala. Geod. S., 1939  
 293, Ala. Geod. S., 1939  
 294, Ala. Geod. S., 1939  
 322-5, Ala. Geod. S., 1940  
 322-6, Ala. Geod. S., 1940

T-10931

CHICKASAW POWER CHIMNEY, 1935

One destroyed station (116, Ala. Geod. S.) was identified. A broken off monument was found in the described location.

There was no supplemental control established. See letter from Chief, Division of Photogrammetry to Mr. Reynolds, dated 5 June 1959, 732/rrj.

One new flight line at 1:30,000 scale was flown in June 1959 with the Wild Camera. This new flight line will be used to run a stereoplanigraph bridge for strengthening the nine-lens plot. The field inspector has complied with the letter from, Chief, Division of Photogrammetry to Joseph K. Wilson, dated 7 July 1959, 73/rrj.

Alabama Geodetic Stations 108, 336, 338 and Coast and Geodetic Survey Station CELESTE are affected by the single-lens photographs in map T-10929.

4. VERTICAL CONTROL

There are no tidal bench marks within the limits of these sheets.

5. CONTOURS AND DRAINAGE

Contouring is inapplicable.

The drainage has been delineated throughout the limits of these maps. In many areas there is no definite drainage due to the flatness of the land.

6. WOODLAND COVER

The cover has been classified in accordance with Project Instructions and the Topographic Manual. The field inspector has shown in its entirety all swamp and marsh limits. In general, the marsh and swamp limits are easily distinguished. All doubtful areas were closely checked in the field.

7. SHORELINE AND ALONGSHORE FEATURES

The shoreline is mainly the banks of Chickasaw Creek, Mobile River and Spanish River. All of the streams were traversed by skiff and the features were clarified at this time. The mean high water line is all apparent, swamp or marsh, except for a short stretch around the shipyard at Chickasaw.

The low water line was not located.

There are no bluffs or cliffs.

Shore ends of overhead or submarine cables and pipelines have been indicated on the photographs.

All docks, piers and wharves have been indicated on the photographs. Shoreline inspection has been indicated on the following nine-lens photographs: 56827, 56841, 56942, 56943, 56945, 56946, 56948, 56957, 56958, 56959, 56960 and 56961.

8. OFFSHORE FEATURES

There were no offshore features noted. The wreck, shown on chart 1266 at Latitude 30-45, is no longer in place. A wreck, has been shown in Mobile River on photograph 56960 at Latitude 30-47 and a sunken barge shown in Spanish River on photograph 56961 at latitude 30-45-45.

9. LANDMARKS AND AIDS

Two landmarks for nautical charts are recommended on form 567. The chimney near Chickasaw has been razed.

Fixed aids to navigation consist of two groups of range lights and two individual lights. They were identified on the photographs by the direct method. It was possible to identify Twelve Mile Island and Spanish River Light due to definite ground features.

There are no aeronautical aids.

10. BOUNDARIES, MONUMENTS AND LINES

Boundary limits have been shown on the photographs of the corporate limits of Saraland, Satsuma, Chickasaw and a part of Brichard. The lines of the corporate limits are not monumented and no ground marks were recovered, however, the limits as shown on the photographs are believed to be adequate.

The center of Mobile River, in Map T-10931, divides the counties of Mobile and Baldwin. See Special Boundary Report for parts 1 and 2 of Project Ph-5704, submitted to Washington on 3-2-59.

11. OTHER CONTROL

There were no monumented topographic stations established. Identification of Photo-hydro stations was not required.

12. OTHER INTERIOR FEATURES

Roads and buildings have been classified on the photographs in accordance with Photogrammetric Instructions 54 and 56.

In accordance with Project Instructions, there were no bridge or overhead cables clearances measured.

13. GEOGRAPHIC NAMES

A systematic investigation of Geographic names was not required. No name discrepancies were noted during field inspection and no new names are recommended.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

Boundary Report for parts 1 and 2 of project Ph-5704; submitted to Washington 3-2-59.

Transmittal of maps T-10932 thru T-10935 to Washington on 6-18-59.

Transmittal of form 567 for Project Ph-5704, Part 3, to Washington on 6-23-59.

Submitted:

*Joseph K. Wilson*  
Joseph K. Wilson  
Chief, Photo Party 720

MAP T-10928

PROJECT NO. Ph-5704

SCALE OF MAP 1:10,000

SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $y$ -COORDINATE LONGITUDE OR $x$ -COORDINATE		DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
			FORWARD	(BACK)	FORWARD	(BACK)		FORWARD	(BACK)	
COLD CREEK, 1895	GPs Pg 6	NA 1927	30 57 26.745 ✓		NW of sheet					
110 (AGS) 1938	Mobile Co. Pg 1	"	88 05 20.632 ✓		Do not plot					
			326,079.23 ✓		9 9389.1 ✓					PL R.I.P. 10/20/59
			330,917.25 ✓		10 0863.8 ✓					" "
111 (AGS) 1938	" Pg 2	"	328,669.66 ✓		10 0178.7 ✓					" "
			331,496.09 ✓		10 1040.2 ✓					" "
R <sup>9</sup> F12 (AGS) 1938	"	"	338,647.06 ✓		10 3219.8 ✓					" "
			334,624.46 ✓		10 1993.7 ✓					" "
113 (AGS) 1938	"	"	340,351.45 ✓		10 3739.3 ✓					" "
			335,288.38 ✓		10 2196.1 ✓					" "
118 (AGS) 1938	" Pg 3	"	351,922.15 ✓		N of Sheet					
			323,365.47 ✓		Do not plot					
270 (AGS) 1939	" Pg 18	"	329,860.31 ✓		10 0541.6 ✓					" "
			326,405.04 ✓		9 9488.5 ✓					" "
271 (AGS) 1939	"	"	331,591.90 ✓		10 1069.4 ✓					" "
			324,562.00 ✓		9 8926.7 ✓					" "
274 (AGS) 1939	"	"	342,695.80 ✓		NW of sheet					
			312,628.57 ✓		Do not plot					
276 (AGS) 1939	"	"	325,963.79 ✓		9 9354.0 ✓					" "
			338,577.78 ✓		10 3198.7 ✓					" "
277 (AGS) 1939	"	"	326,339.11 ✓		9 9468.4 ✓					" "
			338,946.11 ✓		10 3311.0 ✓					" "
TT 5C 28 (USGS) =		"	334,092.98 ✓		10 1831.7 ✓					" "
278 (AGS) 1939	"	"	341,902.73 ✓		10 4212.2 ✓					" "

1 FT. = .3048006 METER

COMPUTED BY: 115

DATE: 8 Sept 59

CHECKED BY: RES

DATE: 8 Sept 59



PHOTOGRAMMETRIC PLOT REPORT NO. 2

21. AREA COVERED

Maps T-10928 thru T-10943, and T-10973 thru T-10984.

The sketch on page ~~16~~<sup>21</sup> shows the arrangement of manuscripts, the identified control, index of control, the stereo bridges, photograph centers and the adjoining manuscripts.

22. METHOD

RADIAL PLOT:

Map Manuscripts and Base Grids:---The projections are 3'45" in latitude and longitude, with the exception of T-10937, which is 4'45" in longitude.

Maps T-10928 thru T-10933 and T-10973 thru T-10980 were run on 1:10,000 base grids. The remainder of the plot was run on the joined manuscripts.

Photographs:---The nine-lens photographs taken 19 and 20 November 1957 at a scale of 1:10,000 were used.

Templets:---Vinylite templets were made from nine-lens photographs using master templet 53605 (1956-1957) for correction of transforming errors and distortion.

The center on the nine-lens photographs was determined by the master templet. The white cross could not be held with the fiducial marks. In no case did this discrepancy amount to more than 0.3 mm.

Closure and adjustment to control:---The plot was run conventionally with ties to supplemental control discussed in Item 23.

It was not possible to hold JULIET R.M. A, 1910. This station was not held on Radial Plot No. 1 and the results on this plot were the same; see Report on Plot No. 1 submitted with T-10757.

The following is a comparison of positions of natural objects, located by the plot and then later in 1960 by triangulation. The triangulation positions are listed first and these

were applied to the manuscripts before delineation was begun:

	<u>Meters</u>	<u>Meters</u>
T-10935 - MOBILE, NAT. GYPSUM W.T.	30°39'1353.1 1351	88°02'1368.4 1369
T-10983 - DAPHNE, MUNI. W.T.	30°36'323.0 323	87°54'396.9 396
T-10982 - LAKE FOREST SUB-DIVISION W.T. Plot location by sub. pt. method.	30°39'1272.4 1272	87°54'561.3 561

The triangulation position for WALA CHANNEL 10 TELEV. MAST 1960 did not agree with the radial plot position; comparison follows:

30°39'974.9 m.	87°54'478.4 m. (Triang.)
30°39'1022 m.	87°53'893 m. (Plot)

See accompanying letter to Chief, Photogrammetry Division dated 28 July 1960.

### 23. ADEQUACY OF CONTROL

Two stereo bridges were furnished - Strip No. 39 to complete a hiatus in T-10936 and Strip No. 82 to furnish control for the radial plot in the northern section of the project; see Instructions Stereo Bridging dated 9 September 1959.

It was necessary to allow Substitute Stations No. 1 and 2 of MC GOWIN, 1935 (positive) to "drift" in order to get a tight junction with stereo-bridge No. 39. The radial plot positions of the substitute stations are 0.4 m.m. from the field positions and fall in opposite directions. The stereo-bridge also failed to hold these stations, with one position for Sub. Sta. No. 1 and two positions for Sub. Sta. No. 2 with discrepancies of 0.3 to 0.4 m.m. in different directions. It is noted that these discrepancies are not mentioned in the Bridging Report, probably because they were considered too small to note. The results in this area are believed within the accuracy limits, but they would have been more positive if instead of identifying 4th order Alabama Geodetic Survey Station 300-1, 1939, the field party had identified C&GS triangulation station COTTAGE, 1935 which was recovered and is only 1254 feet south of 300-1.

Stereo-strip No. 82 was used for additional control with generally good results. Small discrepancies of 0.3 m.m. (3 meters) or less occurred in the plot and bridge positions of a few of the points. These discrepancies were resolved in favor of the radial plot positions because the nine-lens photographs are to be used in photo-hydro support.

Many of the problems encountered in using Strip No. 82 to supplement the plot control are ascribed to errors transferring bridge points in swamps and trees from single-lens photographs flown in June 1959 to nine-lens photographs flown in Nov. 1957. The differences in vegetation, water stages, and sand bars in the river were probably responsible for some of the points being mispricked by 1.0 m.m. (10 meters). These were resolved and a tight plot was achieved in which Strip 82 was held.

The Plot Reports for Bridging Strips 39 and 82 are included in this report.

24. SUPPLEMENTAL DATA

None.

25. PHOTOGRAPHY

See Plot Report No. 1 submitted with T-10757 for "washboard" photographs.

The side lap was adequate except on maps T-10973, T-10974 thru T-10976 and T-10982 thru T-10984. Cross azimuth could not be had between the following flight lines: 56978 thru 56981 with 56893 thru 56896 and 56877 thru 56885 with 57016 thru 57024.

Computation for tilt was made for photograph 56982 and found to be  $12^{\circ}33'$ . See letter dated 25 April 1960 from Acting Chief, Photogrammetry Division. It is believed that satisfactory results were obtained without the use of photographs 56982 and 56983.

26. LOCATION OF AIDS

See Special Report on Location of Aids to Navigation in Mobile Bay submitted by this office and letter from Deputy Director dated 12 August 1960.

27. GENERAL

The dates of completion are:

T-10928	31 Aug. 1960
T-10929	1 Sept. 1960
T-10930	28 June 1960
T-10931	28 June 1960
T-10932	29 June 1960
T-10933	30 June 1960
T-10934	28 April 1960
T-10935	12 May 1960
T-10936	8 Feb. 1960
T-10937	10 Feb. 1960
T-10938	3 Feb. 1960
T-10939	5 Feb. 1960
T-10940	26 Jan. 1960
T-10941	28 Jan. 1960
T-10942	2 Oct. 1959
T-10943	6 Oct. 1959

T-10973	5 July 1960
T-10974	1 July 1960
T-10975	7 July 1960
T-10976	1 July 1960
T-10977	8 July 1960
T-10978	8 July 1960
T-10979	7 July 1960
T-10980	30 June 1960
T-10981	15 June 1960
T-10982	16 June 1960
T-10983	27 April 1960
T-10984	5 May 1960

Respectfully submitted

*Robert R. Wagner*  
 Robert R. Wagner  
 Cartographer (Photo.)

APPROVED AND FORWARDED

*William R. Kachel*

William R. Kachel  
 Tampa District Officer

Tampa District Office  
P O Box 190 Tampa 1 Florida

28 July 1960

To: Chief, Photogrammetry Division  
Coast and Geodetic Survey  
Washington, D. C.

Subject: Location of Aids to Navigation, Project Ph-5704

Reference: Your letter 732/lrw dated 18 July 1960

A report, on the comparative positions of four lights as located by photogrammetric plot and by geodesy, was submitted on 22 July.

In addition to these lights, several landmarks on the east side of Mobile Bay were located by the triangulation party. Their positions check the photogrammetric positions closely with the exception of WALA Radio and Television Tower, a "no check" position. The discrepancy is 01.5' in latitude and 44.43' in longitude. When the data for T-10982 is forwarded to Photo Hydro Support Unit 720, we intend to request a check to see if the tower has been moved since photography.

It is noted that the "index and progress sketch" in the reference letter were not received, but an index and progress sketch for Ph-5910, Houston Ship Channel, was included.

Arthur L. Wardwell  
CER, CGOS  
Tampa District Officer

MMS/e

CC: ECFF, Box 143  
Theodore, Ala.

73/rpj

12 August 1960

To: Tampa District Officer  
Coast and Geodetic Survey  
P. O. Box 190  
Tampa 1, Florida

Subject: Testing Photogrammetric Methods for  
Locating Offshore Aids - Project PH-5704  
Mobile Bay

Normally, we expect our photo points to be located within about a  $\pm 0.2$  mm tolerance. Occasionally, it has been desirable to use these photo points as go ahead points (less than 3rd-order control stations) for locating offshore navigational aids. We have been reluctant to do so because of inadequate information on the probable results.

Using photo points for control, navigation aids 5 miles off shore were located by theodolite cuts. Your special report, comparing the computed positions of aids to navigation located by triangulation and photogrammetric methods in Mobile Bay, is acknowledged.

The results were far better than anticipated. The maximum error was less than 0.4 mm on the 1:10,000 scale map and less than 4 m ground measurement, and the average map error about 0.2 mm.

The directions of errors are about as anticipated. They are random, without pattern, and being small, indicate a strong plot. From this test, we can conclude that it is practicable to locate offshore aids to navigation by a combination of photogrammetric and ground survey methods even though the aids may be 4 or 5 miles beyond the limits of photographic coverage. The application of the method will be restricted; when applicable, it will be authorized in project instructions, and only then when conditions indicate that reliable results will be achieved.

Deputy Director

cc: ECYP, PP-720, 60

73/lrw

25 April 1960

To: Tampa District Office  
Coast and Geodetic Survey  
P. O. Box 190  
Tampa, Florida

Subject: Photograph 56982 - Project PH-5704

The tilt on photograph 56982 is so extreme that rectification is impracticable. Photograph No. 56983 has been selected as a substitute and will be mailed to you within a few days. If this solution to your problem is not satisfactory, please inform us.

J. E. Waugh, Acting Chief  
Photogrammetry Division

PHOTOGRAMMETRIC PLOT REPORT  
Mobile Bay, Alabama Ph-5704  
Strip 39

21. Area Covered

Strip 39 covers the western half of T-10936.

22. Method

Strip 39, consisting of 5 models (59-W-6090 thru 6095) was bridged on the stereoplanigraph to provide pass points for detailing the western half of T-10936. Pass points common with nine-lens photography on the eastern half of the sheet were provided to establish a tie for detailing the overlapping single-lens and nine-lens areas. All pass points are identified on the single-lens photography and those common with the nine-lens photography are identified on photos 56842 and 56851. Strip 39 was adjusted by the IBM method and found adequate for use.

23. Adequacy of Control

The control in Strip 39 was adequate in amount and clarity, however station ss 300-1, Alabama Geodetic Survey, was found to be a fourth order station. Since this station was required as a terminal point in the bridge, an additional three model bridge 59-W-6054 thru 6057 was run to determine its accuracy. This shore bridge showed that ss 300-1 is correct within 9 feet, therefore Strip 39 is acceptable.

24. Supplemental Data

None.

25. Photography

The photography and diapositives were adequate in coverage, overlap, definition and quality.

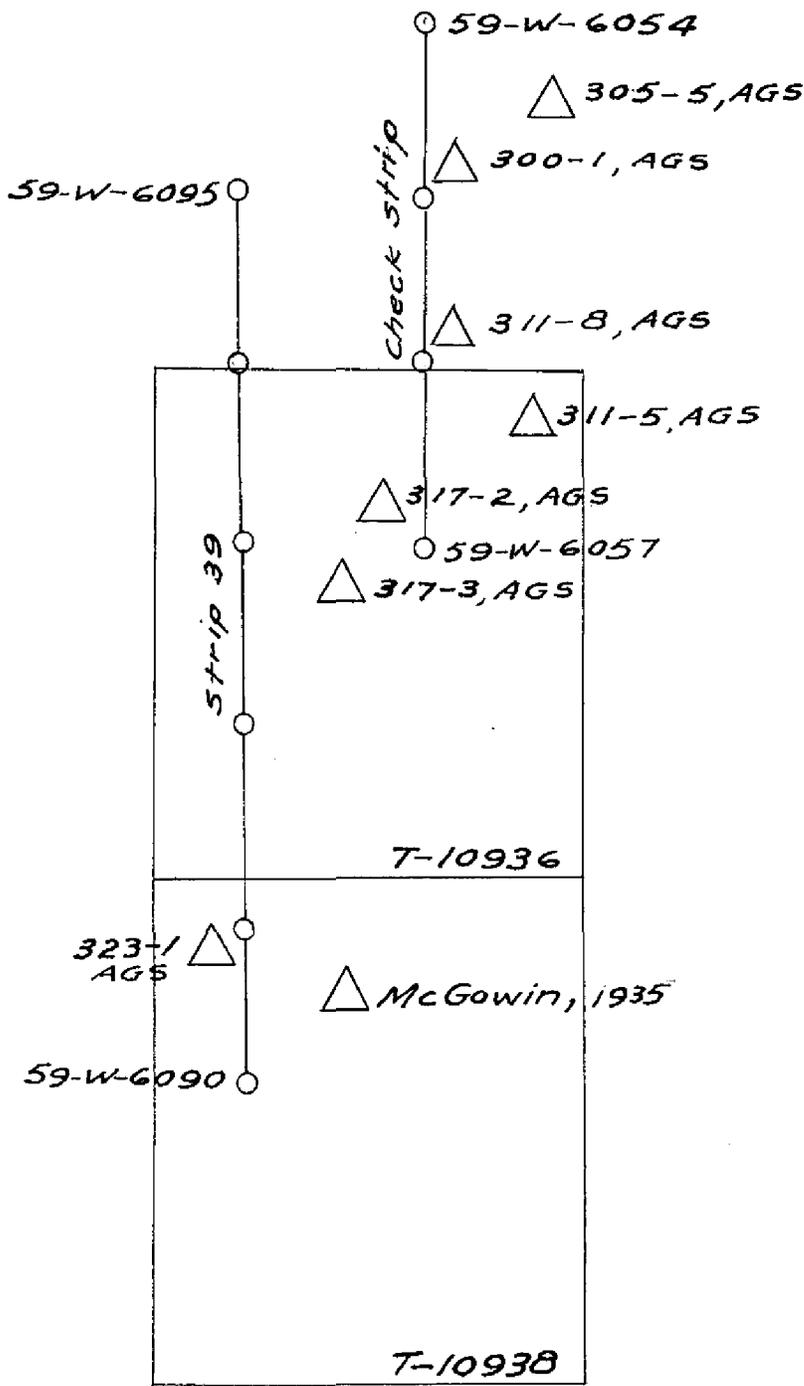
SUBMITTED BY:

*John D Perrow Jr.*  
John D. Perrow, Jr.  
November 4, 1959

APPROVED BY:

*Morton Keller*  
Morton Keller

MOBILE BAY, ALA  
PH-5704  
Stereoplanigraph Bridging  
Scale 1:30,500  
STRIP 39



PHOTOGRAMMETRIC PLOT REPORT  
Mobile Bay, Alabama Ph-5704  
Strip 82

21. Area Covered

Strip 82 covers parts of T-109<sup>29</sup>~~73~~, T-10975 and T-10976.

22. Method

Strip 82, consisting of 10 models (59-W-6017 thru 6027) was bridged on the stereoplanigraph to provide pass points to be used as additional control in laying a nine-lens plot. Due to the differences in time and scale plus the nature of the swampy area, it was very difficult to select good common pass points, and as a result very few were obtained. All pass points are identified on the single-lens photography and those common with the nine-lens photography are identified on photographs 56947, 56956 56977 and 57009. Strip 82 was adjusted by the IBM method and the results indicate it is adequate under conditions described in paragraph 23 of this report.

23. Adequacy of Control see Amendment.

The control in this strip was adequate in distribution but very poor as to identification of sub-stations. SS Celeste, 1938 was discarded due to poor identification. Station Mobile Bay L & N Drawspan, 1935 was very poor in identification and was listed by the field party as a doubtful recovery. It was necessary to use this station as a mid-point of the bridge and therefore the entire results of the bridge may be good or bad depending upon this station. \*If this station and the pass points of the bridge do not hold well in the radial plot, it is recommended that the entire bridge be disregarded. Without additional control identification and/or additional photography single-lens bridging of this area other than what has been done, is impracticable.

24. Supplemental Data

None.

25. Photography

The photography and diapositives were adequate in coverage, overlap, definition and quality.

APPROVED BY:

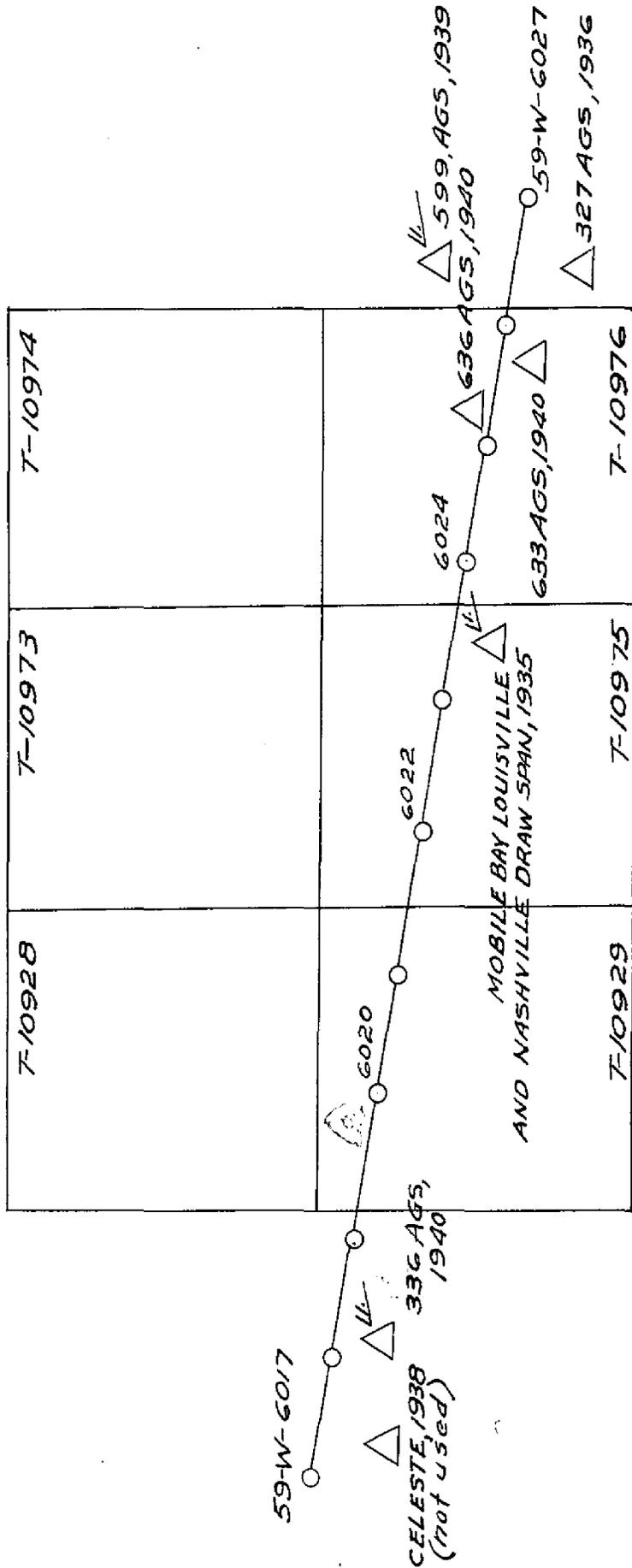
*Morton Keller*  
Morton Keller

SUBMITTED BY:

*John D. Perrow Jr*  
John D. Perrow, Jr.  
November 4, 1959

\* see attached letter dated 7 Dec. 1959 - 77/1rw.

MOBILE BAY, ALA.  
 PH-5704  
 Stereoplanigraph Bridging  
 Scale 1:30,500  
 STRIP-82



Bridge computed on three stations marked  $\nabla$ ; other stations used as checks.

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY  
WASHINGTON 25, D.C.

IN THIS PLACE ATTACH THE  
ORIGINAL COPY AND COPY  
OF THIS LETTER AND REFER TO  
77/175

7 December 1959

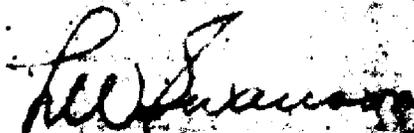
To: CDR Arthur L. Wardwell  
Tampa District Office  
Coast and Geodetic Survey  
P. O. Box 190  
Tampa, Florida

Subject: Stereo-instrument Bridging, Ph-570b

Paragraph 23 of the Descriptive Report, "Adequacy of Control," has been re-written. The single-lens bridge has been re-evaluated and it is within the required limits of accuracy.

Poor identification on several of the stations cast suspicion on the bridged points and it was hoped that the radial plot could check their location. Since this is not practical, the bridged points shall be used as control.

With doubtful identification of the middle control point, the bridged points can be out as much as 40 feet in the center of the strip. However, since the bridge was short and the residuals small, the probable error does not exceed 10 feet.

  
L. H. Swanson, Chief  
Photogrammetry Division

PHOTOGRAMMETRIC PLOT REPORT  
PH-5704  
Mobile Bay, Alabama

AMENDMENT TO STRIP 82

23. ADEQUACY OF CONTROL

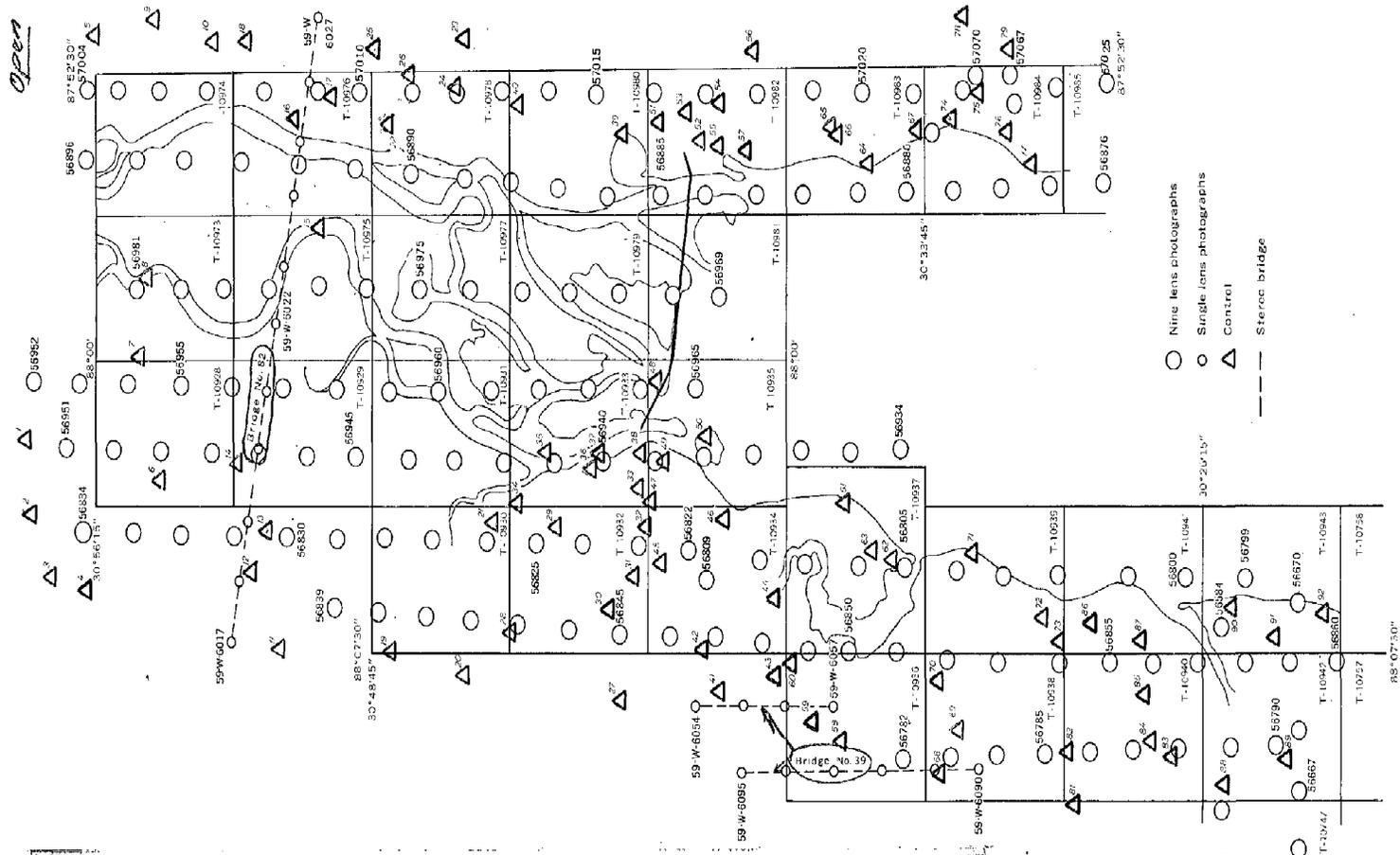
The positions derived from Strip 82 should be used in the radial plot. The closures on the stereo-bridge are considered adequate due to the fact that the bridge is relatively short and the residuals are very small. The prior evaluation was based primarily on the fact that the field identification was made difficult by inadequate sketches.



PHOTOGRAMMETRIC PLOT REPORT NO. 2 PH-570L  
Index to Control Stations

1. Sub. Sta. 116 (Ala. Geod. Sur.) 1938
2. Sub. Sta. 118 (Ala. Geod. Sur.) 1938
3. Sub. Sta. CHD CREEK, 1938
4. Sub. Sta. 274 (Ala. Geod. Sur.) 1939
5. Sub. Sta. 604 (Ala. Geod. Sur.) 1939
6. Sub. Sta. 270 (Ala. Geod. Sur.) 1939
7. Sub. Sta. 279 (Ala. Geod. Sur.) 1939
8. Sub. Sta. HEND, 1938
9. Tr SC 47 (603) 1939
10. Tr SC 16 (601) 1939
11. Sub. Sta. CHESTER 1938
12. Sub. Sta. 336 (Ala. Geod. Sur.) 1940
13. Sub. Sta. 338 (Ala. Geod. Sur.) 1940
14. Sub. Sta. 108 (Ala. Geod. Sur.) 1938
15. MOBILE BAY, LOUISVILLE & NASHVILLE  
R.R. BRIDGE DRAW SPAN 1935
16. Sub. Sta. 636 (Ala. Geod. Sur.) 1940
17. Sub. Sta. 633 (Ala. Geod. Sur.) 1940
18. Sub. Sta. 299 (Ala. Geod. Sur.) 1939
19. Sub. Sta. 292 (Ala. Geod. Sur.) 1939
20. Sub. Sta. 135 (Ala. Geod. Sur.) 1939
21. CHICKASAW TANK 1935
22. Sub. Sta. 631 (Ala. Geod. Sur.) 1940
23. Sub. Sta. 555 (Ala. Geod. Sur.) 1938
24. Sub. Sta. 326 (Ala. Geod. Sur.) 1936
25. Sub. Sta. 327 (Ala. Geod. Sur.) 1936
26. Sub. Sta. BAGGETT 1935
27. MOBILE WATER WORKS TANK, 1935
28. Sub. Sta. 137 (Ala. Geod. Sur.) 1939
29. PRICHARD V. C. CHEMICAL CO. TANK 1935
30. CRICHTON MOBILE COTTON HILLS CO  
TANK, 1935
31. CRICHTON VISITATION CONVENT  
CUPOLA, 1935
32. MOBILE, ST. MARY'S CATHOLIC  
CHURCH TOWER, 1935
33. MOBILE CITY HOSPITAL CHIMNEY 1935
34. MOBILE SOUTHERN KRAFT PAPER CO  
TANK, 1935
35. MOBILE RIVER, NORTH BRIDGE,  
EAST LIGHT POLE, 1935
36. MOBILE STATE DOCKS NORTH TANK 1935
37. MOBILE STATE DOCKS SOUTH TANK 1935
38. MOBILE DRUG CO. TANK 1935
39. Sub. Sta. 305 (Ala. Geod. Sur.) 1939
40. Sub. Sta. DIXON 1935
41. Sub. Sta. 300-1 (Ala. Geod. Sur.) 1939
42. Sub. Sta. 305-5 (Ala. Geod. Sur.) 1939
43. Sub. Sta. 311-6 (Ala. Geod. Sur.) 1939
44. MAY CO SAWMILL CO TANK 1935
45. MOBILE, MURPHY HIGH SCHOOL CHIMNEY 1935
46. MOBILE NATIONAL FLOOR TILE CO TANK 1935

47. MOBILE SMITH'S BAKERY TANK 1935
48. SOUTH BRIDGE EAST PULLY 1935
49. MOBILE ST. VINCENT'S CATHOLIC  
CHURCH SPIRE 1935
50. CHARITINE STATION RESERVATION  
FLAGPOLE 1935
51. Sub. Sta. 206 (Ala. Geod. Sur.) 1939
52. Sub. Sta. 283 (Ala. Geod. Sur.) 1940
53. Sub. Sta. 526 (Ala. Geod. Sur.) 1926
54. Sub. Sta. 486 (Ala. Geod. Sur.) 1937
55. Sub. Sta. 52 (Ala. Geod. Sur.) 1937
56. Sub. Sta. 697 (Ala. Geod. Sur.) 1941
57. Sub. Sta. 51 (Ala. Geod. Sur.) 1937
58. Sub. Sta. 317-3 (Ala. Geod. Sur.) 1939
59. Sub. Sta. 317-2 (Ala. Geod. Sur.) 1939
60. Sub. Sta. 311-5 (Ala. Geod. Sur.) 1939
61. Sub. Sta. HATCH 1935
62. Sub. Sta. 370-1 (Ala. Geod. Sur.) 1940
63. Sub. Sta. 310-5 (Ala. Geod. Sur.) 1940
64. Sub. Sta. RAGGED FM 1 1935
65. Sub. Sta. 62 (Ala. Geod. Sur.) 1937
66. Sub. Sta. SX 1-W (Ala. Geod. Sur.) 1936
67. Sub. Sta. 103 (Ala. Geod. Sur.) 1938
68. Sub. Sta. MOGWIN 1935
69. Sub. Sta. 232-3 (Ala. Geod. Sur.) 1940
70. Sub. Sta. 232-5 (Ala. Geod. Sur.) 1940
71. Sub. Sta. DEWE R M 2 1935
72. Sub. Sta. 310-2 (Ala. Geod. Sur.) 1940
73. Sub. Sta. 313-1 (Ala. Geod. Sur.) 1940
74. Sub. Sta. 311 (Ala. Geod. Sur.) 1940
75. Sub. Sta. 168 (Ala. Geod. Sur.) 1939
76. FAIROPS, SILVER RUN WATER TANK 1935
77. Sub. Sta. 186 (Ala. Geod. Sur.) 1938
78. Sub. Sta. 230 (Ala. Geod. Sur.) 1939
79. Sub. Sta. 276 (Ala. Geod. Sur.) 1940
80. Sub. Sta. 325-1 (Ala. Geod. Sur.) 1940
81. Sub. Sta. 331-2 (Ala. Geod. Sur.) 1940
82. Sub. Sta. 302-3 (Ala. Geod. Sur.) 1940
83. Sub. Sta. 304-2 (Ala. Geod. Sur.) 1940
84. Sub. Sta. 331-1 (Ala. Geod. Sur.) 1940
85. Sub. Sta. 331-2 (Ala. Geod. Sur.) 1940
86. Sub. Sta. 98 (USE) (Ala. Geod. Sur.) 1940
87. Sub. Sta. 331-4 (Ala. Geod. Sur.) 1940
88. Sub. Sta. 228-2 (Ala. Geod. Sur.) 1940
89. Sub. Sta. CROSS 1935
90. Sub. Sta. 308-2 (Ala. Geod. Sur.) 1940
91. Sub. Sta. 316-2 (Ala. Geod. Sur.) 1940
92. Sub. Sta. JULIET 1935



○ Nine lens photographs  
○ Single lens photographs  
△ Control  
--- Stereo bridge

COMPILATION REPORT T-10928

31. DELINEATION

The graphic method was used. The field inspection generally was adequate except for the drainage and swamp areas. See Item 34.

32. CONTROL

The control was adequate and placement was satisfactory. See Photogrammetric Plot Report.

33. SUPPLEMENTAL DATA

None.

34. CONTOURS AND DRAINAGE

Contours are inapplicable. The drainage, including that in swamps was delineated by the field inspector but <sup>when</sup> some of this delineation was disproved by the details on other photographs, particularly in the swamps, all the drainage that could not be seen was doubted. (See Field Photograph 56950 where the field inspection shows a stream going up and along the side of a hill.) Only the drainage identified by thorough stereoscopic examination has been shown on the manuscript. Please refer to the letter dated 10 October 1960 on DRAINAGE, PH-5704 to Chief, Photogrammetry Division from Tampa District Officer for more information about this.

35. SHORELINE AND ALONGSHORE DETAILS

The only shoreline is a small "double line" creek which has no tidal action. There are no alongshore details.

36. OFFSHORE DETAILS

None.

37. LANDMARKS AND AIDS

None.

Tampa District Office  
P. O. Box 190 Tampa 1 Florida

10 October 1960

To: Chief, Photogrammetry Division  
Coast and Geodetic Survey  
Washington, D. C.

Subject: Drainage - PH-5704 MOBILE BAY

The greater portion of the drainage in subject project consists of narrow fingers of swamp (500-1500 Ft. wide) with a perennial stream meandering through the swamp. The field inspector has complied with project instructions by delineating this drainage on the field photographs. Due to the density of the swamp trees, it is impossible to see the stream beds except for occasional short stretches.

We have carefully examined all the streams under the stereoscope on various office photographs. Comparison with the U. S. Geological Survey quadrangles indicates their drainage delineation to be more accurate than our field party's delineation. (Reference copy of memorandum to Wilson attached). One sample area has been returned to the field party and our conclusions were verified for that one particular stream.

We do not believe the streams warrant the expense of the field party traversing them for accurate location, neither do we believe that they should be mapped unless their position is fairly accurate. It appears that this drainage has been delineated on the field photographs without an adequate check with U.S.G.S. quadrangles and/or actual field investigation even though considerable time was probably spent on this phase of the field work. Considerable time has also been spent studying these discrepancies in the office.

It is suggested that the field parties be informed of a definite policy on how much time should be spent on accurately locating drainage, omitting it entirely, or using P.D.U.

On this project, since the narrow fingers of swamp indicate the drainage pattern fairly well, and the streams can be identified only in short stretches, we are omitting them as a whole.

Survey T-10938 is being scribed and will be forwarded in approximately four (4) weeks. The foregoing discrepancies will be noted on various field photographs for your attention.

It is thought that bringing this matter to your attention might eliminate similar difficulties in future projects.

(signed) William R. Kachel  
ICTR, C&GS  
Tampa District Officer

WAR/o

38. CONTROL FOR FUTURE SURVEYS

None.

39. JUNCTIONS

Junctions were made with T-10929 to the south and T-10973 to the east. There are no contemporary surveys to the north and west.

40. HORIZONTAL AND VERTICAL ACCURACY

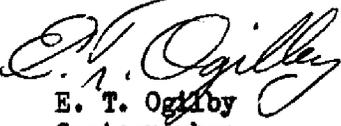
No statement.

46. COMPARISON WITH EXISTING MAPS

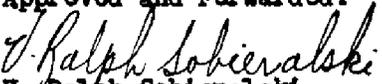
Comparison was made with USGS Quadrangle CREOLA, ALA., scale 1:62,500, dated 1941. The maps compare favorably, except for swamp areas not shown on the 1941 survey. There are no planimetric maps in the area.

47. COMPARISON WITH NAUTICAL CHARTS

This map is beyond the limits of existing charts.

  
E. T. Ogilby  
Cartographer

Approved and Forwarded:

  
V. Ralph Sobieralski  
Tampa District Officer

48. GEOGRAPHIC NAME LIST

All names, excepting those with asterisk, were taken from U.S.G.S. quadrangle CREOLA, ALA., scale 1:62,500, surveyed in 1938-1941. Names with an asterisk were taken from the field inspection notes on the field photographs. One name, "LITTLE ST. LOUIS CHURCH", was from the field photograph, whereas the U.S.G.S. quadrangle calls it "ST. LOUIS CHURCH". This map carries the name "LITTLE ST. LOUIS CHURCH" which the Washington Office Reviewer may desire to change.

ALABAMA  
ALABAMA TENNESSEE AND NORTHERN RR  
AXIS

BALDWIN CEMETERY

CRAFT HIGHWAY

CREOLA

CREOLA CEMETERY\*

CREOLA CHURCH\*

\*CREOLA STAR LIGHT CHURCH *OK 12-65  
a.j.w.*

CYPRESS POND BRANCH

GUNNISON CREEK

HALL BRANCH

HARPERS BRANCH

HATTERS

JIM BELL BRANCH

\*LITTLE ST LOUIS CHURCH *OK 12-65  
a.j.w.*

MOBILE COUNTY

\*MT OLIVE CHURCH *OK 12-65  
a.j.w.*

SEYMORE BRANCH

SIPAU BRANCH

SOUTHERN RAILROAD

TURTLE BRANCH

U S 43

*\* = mt true prop. names,  
but OK for charting.*

*All names checked & approved  
12-10-65*

*a. j. Wraight*

49. NOTES FOR THE HYDROGRAPHER

None.

50.

PHOTOGRAMMETRIC OFFICE REVIEW OF ADVANCE MANUSCRIPT

T- 10928

1. Projection and grids WHS 2. Title WHS 3. Manuscript numbers WHS 4. Manuscript size WHS

4a Classification label Unclassified

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy IIS 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) XX 7. Photo hydro stations XX 8. Bench marks XX  
9. Plotting of sextant fixes XX 10. Photogrammetric plot report MMS 11. Detail points IIS

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline WHS 13. Low-water line XX 14. Rocks, shoals, etc. XX 15. Bridges XX 16. Aids to navigation XX 17. Landmarks XX 18. Other alongshore physical features WHS 19. Other along-shore cultural features WHS

PHYSICAL FEATURES

20. Water features WHS 21. Natural ground cover WHS 22. Planetable contours XX 23. Stereoscopic instrument contours XX 24. Contours in general XX 25. Spot elevations XX 26. Other physical features WHS

CULTURAL FEATURES

27. Roads WHS 28. Buildings WHS 29. Railroads WHS 30. Other cultural features WHS

BOUNDARIES

31. Boundary lines XX 32. Public land lines XX

MISCELLANEOUS

33. Geographic names WHS 34. Junctions WHS 35. Legibility of the manuscript WHS 36. Discrepancy overlay XX 37. Descriptive Report WHS 38. Field inspection photographs WHS 39. Forms WHS

40. William H. Shearouse Milton M. Slavney  
Reviewer Supervisor, Review Section or Unit  
William H. Shearouse Milton M. Slavney

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Robert R. Wagner Milton M. Slavney  
Compiler Supervisor  
Robert R. Wagner Milton M. Slavney

43. Remarks:

JUN 2 1961

Field Edit Report  
(Shoreline)  
Quadrangles T-10928, T-10973,  
T-10974, T-10975, T-10976,  
T-10977, T-10978, T-10981.

51. Methods

The shoreline was inspected by truck and skiff. The distance to the MHWL was spot checked at intervals from points of known location and found to be correct and adequate, except where noted on the ozalid copies of the map manuscripts and the photographs.

Corrections and additions to the manuscript have been noted on the field edit sheets in red and on the photographs in purple. Deletions are shown in green.

Field edit information has been shown on field edit sheets for T-10928, T-10973, T-10974, T-10975, T-10976, T-10977, T-10978, T-10981; on nine lens photographs 56891, 56893, 56948, 56950, 56954, 56959, 56971, 57012, 57013; nine lens office print 56959.

52. Adequacy of Compilation.

The map compilation appears complete and adequate with the exception to the corrections and additions as shown on the ozalid field edit sheets.

53. Map accuracy.

The accuracy of the map compilation appears to be complete and adequate.

54. Recommendations:

There are no recommendations.

55. Examination of Proof Copy.

No one was contacted to examine a proof copy of the map.

Submitted:

*Wesley V. Hull*

Wesley V. Hull

LTJG C&GS

Photo Hydro Support Unit 721

Review Report  
Planimetric Maps  
T-10928 thru T-10935  
December 1965

61. General Statement

Area - The project encompasses Mobile Bay and its approaches.

Purpose - The object of this project is to provide base maps for nautical charting and shoreline and horizontal control data for hydrographic surveys.

62. Comparison with Registered Topographic Surveys

T-5530	1:20,000	1934
T-5531	1:20,000	1934
T-3716	1:10,000	1919
T-3713	1:40,000	1918

Cultural and shoreline changes have been continuous. These maps are to supersede the above surveys of common areas for nautical charting. Also see Item 46.

63. Comparison with Maps of Other Agencies

Creola	1:62,500	1941
Chickasaw	1:24,000	1953
Mobile	1:24,000	1953

See Item 46.

64. Comparison with Contemporary Hydrographic Surveys

H-8584	1:5,000	1961
H-8585	1:5,000	1961
H-8586	1:10,000	1961
H-8587	1:10,000	1961
H-8588	1:10,000	1961
H-8589	1:10,000	1961
H-8591	1:10,000	1961

Shoreline and control of subject surveys were furnished prior to the hydrographic surveys and apparently no differences of importance exist.

65. Comparison with Nautical Charts

1266

1:80,000

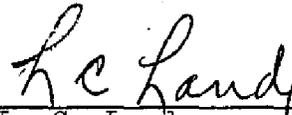
1965

Because of the scale difference, only a visual comparison was made. No notable differences exist.

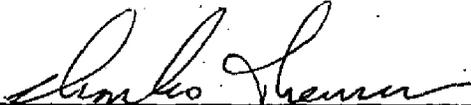
66. Adequacy of Results and Future Surveys

These maps comply with the National Map Accuracy Standards and meet Bureau requirements.

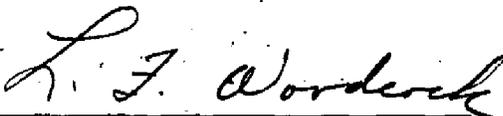
Reviewed by:

  
\_\_\_\_\_  
L. C. Lande

Approved by:

  
\_\_\_\_\_  
Chief, Photogrammetric Branch

\_\_\_\_\_  
Chief, Nautical Chart Division

  
\_\_\_\_\_  
Chief, Photogrammetry Division