

5141

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Form 504
Rev. Dec. 1933

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

DESCRIPTIVE REPORT

Topographic
~~*Hydrographic*~~

Sheet No. 5141

State Georgia & South Carolina

LOCALITY

Georgia & South Carolina

Savannah River

Onslow Island

1935

CHIEF OF PARTY

S. B. Grenell

U. S. GOVERNMENT PRINTING OFFICE: 1934

This report includes a combined inspection report for the Savannah River area compiled from 5-lens, 1:10,000 scale photographs.

Combined Inspection Report

Form 504 Rev. Dec. 1933	
DEPARTMENT OF COMMERCE U.S. COAST AND GEODETIC SURVEY R. S. PATTON, DIRECTOR	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. 5141 to 5148 Excepting 5146
Combined Inspection Report for Sheets 5141 to 5152 - Savannah River 5148 (except 5146)	
State Georgia & South Carolina	
LOCALITY	
Georgia & South Carolina East Coast	
Savannah River	
1935	
CHIEF OF PARTY	
S. B. Grenell	

Note These Atlas sheets have been
combined in this office and printed
as 7 sheets instead of the 13 submitted.
Bgg.

INSPECTION REPORT

5-Lens - 1:10,000 Compilations

Nos. 5141 to 5145, 5147 & 5148
Savannah River

COMBINED REPORT:

In order to avoid the repetition necessitated by individual Inspection Reports for each compilation, this Combined Report is written to cover all of the sheets compiled from the 1:10,000 5-lens photographs of the Savannah River. All general information is discussed in detail and special features appearing on one compilation are taken up in a paragraph under that compilation number.

SHEET LAYOUT AND PROJECTIONS:

As an experiment a system of "ATLAS" sheets were laid out to cover the area. These sheets are uniform size, $3 \frac{3}{4}$ min. by $3 \frac{3}{4}$ min. starting from the intersection of 81st meridian and the 32nd parallel and two such sheets were cut from each full size sheet of blank celluloid. The celluloid used was from the first shipment received in the field and was of an inferior quality having a high shrinkage factor. Also this celluloid seemed to have "hard" and "soft" spots in it which made it impossible to secure an even grained surface. Because of the uneven surface the projection lines and later drafted detail was very uneven and had to be "worked over" considerably. *See opposite page.*

A scale plot was run for all of the Savannah River flights and a mean scale factor of .940 was adapted for all of the Atlas sheets. A great deal of difficulty was experienced in making projections, due partly to the uneven surface mentioned above but principally to the excessive distortion due to temperature and humidity changes. Many of the projections had to be redone in part and later projection checks showed that uneven distortion had taken place as the sheets "aged".

It is the belief of the writer that the Atlas layout is in general, unsatisfactory for the following reasons:

1. It is impossible to shift sheets to fit topographic detail or flight areas.
2. The number of sheet junctions is doubled and more difficulty is experienced in running the radial plot through junctions due to "un-matched" or distorted projection lines along the edges of the celluloid.
3. The sheet often necessitates a waste of celluloid; an entire sheet being necessary to cover a very small area.
4. In order to get two Atlas projections from one sheet of celluloid it is necessary to trim the celluloid within $\frac{1}{2}$ inch of the tracing limit along one edge of the sheet.

Note: Atlas sheets are no longer being laid out but projections are being made to order as far as practicable.
Bgg.

RADIAL PLOT:

The radial plot was run through from projection to projection, continuously, flight by flight with the exception of the two northern flights through compilations 5141, ~~5142~~, ~~5142~~ and 5143. This area had insufficient control and was left to a later date. Lieutenant C. A. Egner eventually put in a system of triangulation north of the Savannah River which controlled these flights and the radial plot was then completed. Compilation No. 5141 is not an Atlas layout. The Atlas system would have required three sheets to cover the same area included in this one full-size sheet.

No unusual difficulty was experienced in running the radial plot which carried smoothly through the junctions from sheet to sheet. On a few of the first compilations an attempt was made to carry the tracing to the limits of the wings on the outside flights in order to get as much 1:10,000 area as possible. When the junctions were made with the adjoining 1:20,000 sheets several errors in the Atlas compilations were discovered and corrected. This was not a fault of the radial plot but due to tracing detail beyond the limits of the well controlled radial points.

CONTROL:-

The radial plot of the entire Savannah River area was completed entirely by triangulation. The first order arc passes through the City of Savannah and a spur arc was run down toward the coast giving a few stations on the river flights. In the following year, 1933, Lieut. C. M. Durgin ran through a coordinating project connecting the various existing schemes, adding new stations and making connections to the first order arc for later adjustment to the N. A. 1927 datum.

Again in 1934, Lieut. C. A. Egner in making his hydrographic and topographic control survey of the Savannah River found it necessary to extend the triangulation up the river, westward from the scheme of Lieut. Durgin. All of this assembled control, available at the time the radial plots were made, was used to hold these plots. Unfortunately considerable control established late in 1934 by Lieut. Egner was computed after the radial plots were run and was not available to control the plots. As noted elsewhere in this report, these stations were later plotted and checked against the radial plot and compilation.

With the exception of the few stations of the first order arc and part of the scheme executed by Lieut. Egner, the control was computed on the old N. A. datum. In order to reduce this control to the new N. A. 1927 datum all connection differences to the first order arc were plotted in tabular form on Lat. and Long. and the intervening spaces were filled in by interpolation for each 5 minutes of Lat and Long. The correction for each N. A. datum station was then taken from this table and applied to give the N. A. 1927 position.

GENERAL TOPOGRAPHIC FEATURES:

The general character of terrain covered by compilation T-5143 and ~~T-5144~~ is flat. These compilations lie to the south and southwest of the City of Savannah, Georgia. Compilation T-5143 includes within its boundaries part of the street system of the city of Savannah, and the roads entering the city. In general the roads on these compilations are first class paved or improved roads.

The Central of Georgia Railway tracks from Savannah to Tybee have been abandoned from a point about one mile east of Le Pageville, shown on compilation T-5143, to Tybee Island. The old roadbed is indicated by a double row of sand dots because the embankment is a mark of topography, and the current charts of the U. S. C. & G. Survey should be revised

COMPARISON WITH CONTEMPORARY SURVEYS:

Compilation T-5147

The junctions with adjoining sheets are complete and satisfactory.

The shoreline agrees in general with inked shoreline on A. C. topographic sheet #6154a of Lieut. C. A. Egner except where rodged shoreline takes in a mud bank which is not visible on photo 1357. At the time photographs were taken the tide was 3/5.

The following topographic signals were plotted on this compilation from cards, form 524:- MID, NEAR, OFF. Station BY was not plotted because reference to H.W.L. as given on card did not agree with compilation. The compilation was carefully checked with photos and no change could be made in compiled shoreline. U. S. E. D. stations WING DAM #32 and WELCH were plotted on this compilation from G. P.'s given in C. A. Egner's report #6154a page headed List of Signals, Sheet B'.

Bridge data on this compilation is as follows: Bull (Tybee) River Bridge; Swing Span; Width of Channel 95'-0"; Vertical Clearance Above MLW 13'-0". Turner Creek Bridge; Swing Span; Width of Channel 90'-0"-90'-0"; Vertical Clearance Above MLW 12'-0"

NAMES ON OVERLAY SHEET:

Names were obtained from current U. S. C. & G. Survey charts and U. S. Engineer's Tactical Map (Bluffton Quadrangle)

Compilation T-5148(v)

The junctions with adjoining sheets compiled in this office are complete and satisfactory.

In general, the shoreline on this compilation agrees very closely with inked shoreline on A. C. topo sheet 6154a, C. A. Egner Chief of Party, except as follows:

The rodged shoreline at station QUARANTINE TANK cuts across area that the bottom of tank would occupy. The photos were investigated and the compilation is correct.

The disagreement existing between shorelines at (32°-02.1') (80°-54.9') cannot be explained. Photos show no justification to bring shoreline any farther out than that on compilation. The tide on photos is 4/5.

The discrepancy in shorelines from (32°-02.8) (80°-55.8') to (32°-03.1') (80°-55.9) cannot be explained. The photos show a comparatively smooth shoreline and the rodged shoreline has two variations of about 20 meters out into the water. The compilation follows the photos. The tide is 4/5.

It is believed that mud banks, which do not show on the photos, are rodded in on the A. C. topo sheet.

The following topographic signals were plotted on this compilation from cards, form 524: ROCK, CORY, RAY, DEX, and EAST. The signal LAR was not plotted because the reference to H.W.L. does not check within allowable limits. Investigation verifies compilation correct. The following topo signals were plotted on the compilation from G. P.'s given in the report #6154b sheet A' and 6154a sheet B' of C. A. Egner: NEW CHANNEL F. LIGHT: JO F. R.; JO R. R.; BUM; CAP; TOM; CROSS F.R.; CROSS R.R.; BO F.R.; BO R.R.; LO F.R.; LO R.R.; OYSTER BED R.R. Bn; OYSTER BED F.R.; TIDE; QUARANTINE LT., NEW JOHNSON; LONE CROSS; TYBEE KNOLL R.R. Lt.

The following U.S.E.D. stations were plotted on this compilation from G. P.'s given in above report of C. A. Egner: WING DAM No. 32; HYDRAULIC; FILL; WING DAM No. 28; LONG ID.No. 3; DAYMARK; PULASKI; NEW HOPE; LAZARETTO.

The bridge data on this compilation is LAZARETTO CREEK BRIDGE (highway); Swing Span; Channel Width 90'-0"; vertical clearance above MLW 13'-0".

Attention is called to the railroad bridge crossing Lazaretto Creek just north of highway bridge. The railroad is now abandoned, the rails are removed and the bridge is in place open to navigation at the time of this report.

NAMES ON OVERLAY SHEET:

Names were obtained from current U. S. C. & G. Survey charts and U. S. Engineer's Tactical Map (Bluffton Quadrangle).

Compilation T-5148 (E)

The junctions with adjoining sheets compiled in this office are complete and satisfactory.

The details on this compilation agree within 10 meters, with detail on A. C. sheet #6154b of C. A. Egner, except around the north point of Tybee Island and this is undoubtedly differences of interpretation. No changes were made in compilation. The tide is $\frac{4}{5}$. When this sheet is reviewed, attention is called to projections on the A. C. sheet.

The following topographic signals were plotted on this compilation from cards, form 524: CLUB, and SHACK. The following signals were plotted on this compilation from G. P.'s given in report #6154b, sheet A' of C. A. Egner: AL, PHONE, and RED. Station TANK 1934 (Tybee Waterworks) was plotted from the final office adjusted position furnished this office in April, 1935. This tank was located on the photos and a check was made of the compilation. The compilation was found to be correct.

NAMES ON OVERLAY SHEET:

Names for overlay sheet were taken from current U.S.C. & G. Survey charts

Compilation T-5142(W)

The junctions with adjoining sheets compiled in this office are complete and satisfactory.

The detail of this compilation has been checked with the A. C. sheet 6156a of C. A. Egner and found to agree.

The following topographic signals were plotted on this compilation from scaled distances on A. C. sheet 6156a; REAR# 2 R.R.; UPPER COMPRESS; LOWER COMPRESS; QUEEN 2, HAM, CITY DOCK, MUD and MARINE 2. *These are U.S. Engineers stations for control of dredging*

Triangulation station FRAZIER 1934 was plotted on this compilation from the final office adjusted position furnished this office April, 1935.

NAMES ON OVERLAY SHEET:

Names for overlay sheet were obtained from current U. S. C. & G. Survey charts and U. S. Engineer's Tactical Map (Savannah Quadrangle)

Compilation T-5142(E)

Junctions with adjoining sheets compiled in this office are complete and satisfactory.

The shoreline on this compilation was checked against the light pencil line drawn on A. C. topo sheets #6156a and 6155b of C. A. Egner. After a careful investigation of differences the compilation was changed where detail on photos justified it. In many instances it is obvious that topo sheet has indicated mud banks which do not appear on photos. The tide is 3/5. In these instances the compiled shoreline is back of penciled shoreline on topo sheet. *See review of T-5142*

The following topographic signals were plotted on this compilation from card form 524:- BL. STACK, TOWER, STACK, MESS, BIT, CORNER, CHUTE, STICK, ROSIN, and SCO. The topo signal PIPE was not plotted because point falls 16 meters from edge of wharf line and investigation verifies the compilation to be correct. *Pipe plotted in office by Bureau T 5142*

The following U. S. E. D. stations were plotted on this compilation from scaled distances on A. C. topo sheets # 6156a and 6155b:- BANK, HERMIT, MARSH PT.-2, DIAMOND, SOUTH SEABOARD, SAND 3, ACAN, TARHEAD, KELLY, M & M2, FISH 3, COMPRESS, BUTLER, MORGAN, PATRICK 2.

The following U. S. E. D. stations were not plotted; CANAL-2, WALL, and SAND 1-2, because they fell within the water area. Not having a description of these stations it was considered advisable to leave them off. This decision was reached after an examination of pictures in this area. These stations may be a stand on old piling that does not show on photo.

The bridge on this compilation are the S. A. L. Ry. Br. Bascule; 4 span; clear channel width 120'-0"; clear height above MLW 16.4 feet; and the S. A. L. Ry. Br. One fixed span; clear channel width 30 feet; clear height above MLW 18.2 feet.

N.R.S.

7-22-35

NAMES ON OVERLAY SHEET:

The names on overlay sheet were obtained from current charts of the U. S. C. & G. Survey; U. S. Army Engineer's Tactical Map (Savannah Quadrangle) and the City Map of Savannah, Georgia.

CC Compilation T-5143

The junctions with adjoining sheets compiled in this office are complete and satisfactory.

The shoreline on this sheet agrees in general with faint pencil lines on A. C. sheet 6155a and 6155b.

There are two docks on compilation near triangulation station PURE OIL TANK that differed by 7 meters from topo sheet. After putting in new radial points on these docks the compilation was found correct. Attention is called to meridian $81^{\circ}-03'$ on A. C. topo sheet #6155b.

The compilation has also been checked in the vicinity of station WIMPY and the difference of 10 meters in shoreline cannot be explained. Tide on photos is $3/5$.

The following topographic signals were plotted on this compilation from card form 524: PLONE TREE, STANDARD OIL STACK, WIMPY, and the following signals were not plotted: STANDARD OIL TANK because there is a difference of 6 meters between centers of tank. Signal PURE OIL TANK because again the centers of tank disagree by 10 meters. In both instances the compilation has been checked. It is felt that PURE OIL TERMINAL TANK on A. C. sheet plotting 10 meters affects the above topo positions. Pure Oil Tank (d) & Standard Oil Tank (d) scaled from compilation and form 524 filed under T-5143.

The signal FT. OGLETHORPE LT. was plotted on this compilation by the G. P.'s given in report #6155b, sheet D'. Replaced by Δ position in office.

The following U. S. E. D. stations were plotted on this compilation by scaling distances on A. C. topo sheet 6155b: FERRY, FIG 2, POINT, ABE, CYPRESS TREE 2, DEPTHFORD, FEVER, BARNWELL ID. No. 2, BARN, FT, JACKSON R.R., FT. JACKSON, F.R.; JAM, BAUER, and HUNT.

NAMES ON OVERLAY SHEET:

The names on overlay sheet were obtained from current charts of the U. S. C. & G. Survey and U. S. Engineer's Tactical Map (Savannah Quadrangle)

Compilation T-5144(w)

Junctions made with adjoining compilations compiled in this office are complete and satisfactory.

The shoreline on this compilation agrees in general with faint pencil shoreline on A. C. sheet 6155a and inked shoreline on A. C. sheet 6154a. This agreement is within 5 meters error except as follows: Around triangulation station FIELDS CUT 1932 on the west side of creek the difference is about 15 meters. Investigation of photos and compilation in this area do not justify any change in compiled shoreline. The east side of creek opposite place of disagreement checks. The disagreement along south shore, from (32-04.3) (80-58.0) to about (32-03.6) (80-57.0) has been changed on compilation to agree within 9 meters by including a mud bank outside of originally compiled shoreline. Photos show such a bank. The tide is $3/5$.

The following topographic signals were plotted on this compilation from card form 524:- JEFF and MUTT. The following topo signals were plotted on this compilation by G. P.'s given in report #6155a, sheets B' and C':- GUS, PILE, BEACON #8, LOWER FLATS F.R. LT', TOM and BLACK BN.

The following U. S. E. D. stations were plotted by G. P.'s given in report 6154a, sheet B'; FIELDS CUT 2-3-4-5-6; VPTN #2, RED, FRANK, BEACON, IRON BN, and N. ELBA ID. T W LT'; IRON BN.

The following U. S. E. D. stations were plotted by scaling the distances from A. C. topo sheet 6155a:- BEACON, A, B2, MEIGS, ELBA, PALMETTO and PHILBRICK 2.

NAMES ON OVERLAY SHEET:

The names on overlay sheet were obtained from current issues of charts of the U. S. C. & G. Survey and U. S. Army Tactical Map (Bluffton quadrangle)

Compilation T-5144(E)

All junctions with adjoining compilations compiled in this office are complete and satisfactory.

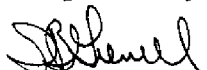
The shoreline on this compilation was checked with smooth boat sheet of C. A. Egner 1934 and found to be correct.

The topographic signal SOL was plotted on this compilation from card form 524, although the reference of 10 meters to HWL on card does not agree with compilation. Compilation shoreline passes through plotted point. It is felt however, that this topo reference may be to a mud flat not visible on photo. The tide on photos is 3/5.

NAMES ON OVERLAY SHEET:

Names for overlay sheet were obtained from current charts of the U. S. C. & G. Survey.

Respectfully submitted,



S. B. Grenell
Chief of Party

Report compiled by:



A. M. Gruber,
Surveyor

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. 5141

State Georgia

General locality Savannah River

Locality Oakley Island

Scale 1:10,000 Photographs: 10-11-33
Date of ~~survey~~ Comp., 19...

Vessel Aerial Photo Compilation Party No. 18

Reviewed and recommended for approval:

Chief of party Lieut. (j.g.) S. B. Grenall *S. B. Grenall*

Photographs plotted by: F. B. Hickman
~~Surveyed by~~

Inked by J. B. Williams, Jr.

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated November 10, 1933, 19...

Remarks: Compilation of aerial photos. Nos.: 1393 to 1376

--NOTES OF COMPILATION--

One copy of this form must accompany each chart from beginning to completion. The last draftsman, whose name appears on this form, is responsible for it and all personnell will endeavor to keep these forms up to date and correctly posted. This form is very important inasmuch as the final Descriptive Report of the chart compiled is based upon the information contained herein.

SHEET No. 5141

PHOTO NO. 1393 to PHOTO NO. 1376

BY	START	FINISH
ROUGH RADIAL PLOT <u>Warren Fitch</u>	<u>12-21-33</u>	<u>12-21-33</u>
SCALE FACTOR (.940) <u>W. F. S. B. G.</u>	<u>1-6-34</u>	<u>1-6-34</u>
SCALE FACTOR CHECKED <u>S. B. Grenell</u>	<u>1-6-34</u>	<u>1-6-34</u>
PROJECTION <u>A. M. Gruber</u>	<u>8-13-34</u>	<u>8-13-34</u>
PROJECTION CHECKED <u>S. B. Grenell</u>	<u>8-14-34</u>	<u>8-14-34</u>
CONTROL PLOTTED <u>F. B. Hickman</u>	<u>9-7-34</u>	<u>9-7-34</u>
CONTROL CHECKED <u>A. A. Futral</u>	<u>9-7-34</u>	<u>9-7-34</u>
TOPOGRAPHY TRANSFERRED <u>J. B. Williams</u>	<u>various times</u>	
TOPOGRAPHY CHECKED <u>S. B. Grenell</u>	<u>various times</u>	
SMOOTH RADIAL LINE PLOT <u>F. B. Hickman</u>	<u>9-7-34</u>	<u>9-21-34</u>
RADIAL LINE PLOT CHECKED <u>S. B. Grenell</u>		<u>9-21-34</u>
DETAIL INKED <u>J. B. Williams</u>	<u>9-22-34</u>	<u>10-23-34</u>
AREA DETAIL INKED <u>11.5</u>	Square Statute Miles	
LENGTH OF SHORE LINE OVER 200m. <u>14.1</u>	Statute Miles	
LENGTH OF SHORE LINE UNDER 200m. <u>6.9</u>	Statute Miles	
GENERAL LOCATION <u>Savannah River</u>		
LOCATION <u>Onslow Island</u>		
DATUM STATION <u>MASTERS 1934</u>	LATITUDE <u>32 - 08 + 988.8</u>	
DATUM <u>N. A. 1927</u>	LONGITUDE <u>81 - 06 + 495.3</u>	

INSPECTION REPORT
COMPILATION No. 5141

Scale 1:10,000 (approximate)

REFERENCE:-

In reviewing this sheet in the Washington office reference should be made to the General Report for Atlas Sheets which will be forwarded at a later date with the eleven atlas sheets which comprise the block of compilations of the 5-lens, 1:10,000 photographs of the Savannah River.

GENERAL INFORMATION:-

This compilation was made from the 5-lens 1:10,000 photographs of the Savannah River and because of the location and shape of the area covered was plotted on a full size sheet rather than on sections of three smaller sheets as would have been necessary on an atlas layout.

The principal features of this compilation are the Savannah River and its various branches and the extensive canal and ditch system of the abandoned rice plantations bordering the river. The General Report mentioned above includes a detail discussion of the latter feature.

CONTROL:-

The radial plot for the area of this compilation was controlled entirely by triangulation established by C. A. Egner in the summer of 1934. The radial plot for all of the Savannah River 1:10,000 flights was run through continuously from sheet to sheet as far as possible. The northwest section was found to be without sufficient control so the radial plot was held up until Lieutenant Egner established more control. Later a plot was run through for the remaining sheets using the new control.

COMPARISON WITH CONTEMPORARY SURVEYS:

The compilation of shoreline was checked against the fixed control hydrographic lines and sections of shoreline from the aluminum mounted control sheets of C. A. Egner, 1934. Comparison was also made with U. S. Army Tactical Maps for the area but the data shown on these maps was so obsolete as to be of no value in identification of topographic features.

NAMES ON OVERLAY SHEETS:-

All names appearing on this compilation were taken from current issues of charts and from U. S. Army Tactical Maps.

Respectfully submitted,


S. B. GRENELL
Chief of Party No. 18

REPORT OF COMPILATION:-

COMPILATION METHOD:

This sheet was compiled by the standard radial line plot method.

The original control on this sheet was good at the western end but weak at the eastern end of the sheet. Additional triangulation was put in by C. A. Egner in 1934 and the radial plot re-run and additional points added to facilitate tracing of detail.

ADJUSTMENT OF PHOTOGRAPHS:

The pictures on this sheet were clear and had about the average amount of tilt. The only difficulty encountered was on the northern side of the sheet where the tracing had to be done quite far out on the wings of the photographs, where tilt distortion was quite appreciable. This difficulty was overcome by interlacing radial points and in a few instances by putting in new radial points.

INTERPRETATION:

The photographs for this compilation were clear and the delineation of shoreline was well defined throughout. Mud flats appearing along the rivers showed up plainly on the photos and no difficulty was experienced in accurately tracing them.

Embankments along the canals and ditches in the rice fields have been shown with a double row of dots interrupted at intervals by tree and brush symbols to show that trees and brush are growing on top of these embankments.

Standard symbols listed in the topographic manual were used throughout the sheet in such combinations as would give the best indication of existing conditions.

INFORMATION FROM OTHER SOURCES:

Information for the compilation of this sheet was obtained from photographs, observation of same under the stereoscope, and part of the shoreline was checked with C. A. Egner's 1934 aluminum sheets.

COMPARISON WITH OTHER SURVEYS:

All junctions have been made with adjoining sheets and are complete and satisfactory.

ACCURACY AND COMPLETENESS:

The area covered by this sheet is complete in every detail as nearly as can be determined from the photographs. All well defined detail is located with a probable error of 4 meters; less well defined detail with a probable error of not more than 10 meters.

PHOTOGRAPHS:

No.	to	No.	Date	Time	Stage of Tide
1376		1393	10-11-33	11:00AM	3/5 ft.

Approved: *S. D. Greenall*, Chief of Party *J. B. Williams*, Draftsman

REVIEW OF AIR PHOTO COMPILATION T-5141 (1935)

May, 1935

1. Projection.

The projection has been checked in the office. Parallel $32^{\circ} 07'$ was from 2 to 3 meters too far north. It has been corrected. The projection is satisfactory.

2. Comparison with Contemporary Graphic Control Surveys.

T-6156a (1:10,000) June, 1934.

At lat. $32^{\circ} 09.8'$, long. $81^{\circ} 09.4'$, the compilation shore line fell from 0 to 30 meters inside the shore line on T-6156a. The compilation showed a small marshy area outside the high water line. Inspection of the photographs shows that the graphic control survey gives the better interpretation; The compilation has been corrected.

At lat. $32^{\circ} 08.6'$, long. $81^{\circ} 08.6'$, the compilation and T-6156a differ by 10 meters on the length of the refinery pier. The compilation has been checked by scaling the distance from the photographs. The compilation is accepted as correct.

Details appearing on T-6156a which have not been transferred to the compilation are as follows:

- (1) Temporary topographic and hydrographic stations.
- (2) Magnetic meridian.
- (3) Buoys.
- (4) U. S. E. dredging ranges.
- (5) U. S. E. Grid system. For discussion of the U. S. E. control in the Savannah River Area see the descriptive report for T-6154a - T-6156b.

3. Comparison with Previous Surveys.

T-385 (1:10,000) 1852.

The compilation covers only a small part of T-385. Differences are largely confined to marshy area. The compilation is complete and adequate to supersede that part of T-385 which it covers.

4. Comparison with Contemporary Hydrographic Surveys.

a. H-5572 (1:10,000) August 1934.

The compilation covers the detail on H-5572 north of lat. $32^{\circ} 07.5'$. There are no conflicts between the compilation shore line and the hydrography. A few temporary signals are located outside the high water line on H-5572, but the shore line has not

been changed. For discussion of similar conditions see descriptive report H-5584.

b. H-5584 (1:10,000) Sept.-Nov. 1934.

There are no conflicts between the compilation shore line and the hydrography.

5. Comparison with Charts.

An insert on chart 440 shows the main channel up to the refinery pier at Port Wentworth. The compilation includes much detail which is not shown on the charts.

6. Additions and Corrections, *is the compilation from photographs:*

a. Several buildings were added to the sugar refinery group at Port Wentworth.

b. The jetty opposite the sugar refinery pier was located by photo plot and added in the office. The position is checked by the locations of U. S. E. sounding ranges shown on T-6156a.

c. The rock dam noted at lat. $32^{\circ} 07.7'$, long. $81^{\circ} 07.7'$, on the compilation is not completely visible on the photographs. This detail is noted on H-5572 and mentioned in the report on H-5572. It has been added to the compilation in the office.

7. Recoverable Stations.

All recoverable stations shown on the compilation have been transferred from T-6156a by *V. R. Sobieralski* and checked by *S. A. Benson*. Those marked (d) are described on Form 524 and filed under T-6156a.

8. Landmarks, Lights and Beacons.

No landmarks or lights are shown on the insert on chart 440. No new landmarks in the area of the compilation have been recommended, but several stacks and tanks in the vicinity of Port Wentworth are prominent enough to be shown on the charts. All beacons shown on chart 440 *in this area* are included on the compilation.

*△ Orange Tank 1934 Lat. $32^{\circ} 07.3'$
Long $81^{\circ} 09.8'$
△ Very Tall Cone Stack 1934 Lat $32^{\circ} 09.2'$
Long $81^{\circ} 09.2'$
~~△ West Tank~~
△ Port Wentworth Stack Lat $32^{\circ} 09'$
Long $81^{\circ} 09'$
△ Sugar Ref Tank Lat $32^{\circ} 08'$ *out 3'*
Long $81^{\circ} 08'$
○ Sugar Ref Stack Lat $32^{\circ} 08'$
Long $81^{\circ} 08'$*

*Respectfully submitted,
V. R. Sobieralski
8-19-35
B. G. Jones*

Date. July 10, 1935

Chart No. 440 & 1240

Under investigation. Q

(M-136)

REVIEW OF AIR PHOTO COMPILATION NO. 5141

Chief of Party: S.B. Grenell

Compiled by: J.B. Williams Jr.

Project: F.P.H. Ga. Party #18

Instructions dated: Nov. 10, 1933

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) ✓
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) *No Changes*
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 used.*
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*
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. ✓
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) *No large adjustments.* ✓
7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44) ✓

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 low water lines, ~~reefs, coral reefs and rocks,~~ and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41) ✓

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)
Form 524 by C.A. Egner, 1934

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)
Form 567 by C.A. Egner, 1934

11. ⁽³⁾ All bridges ⁽³⁾ 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) ✓

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) ✓

13. The geographic datum of the compilation is *N.A. 1927* and the reference station is correctly noted. ✓

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

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;

Feb. 11, 1935

J.B. Shnell

Chief of Party

19. Remarks after review in office: *See review pages.*

Reviewed in office by: *V. K. Sobieralski* ✓ *B.G. Jones*
9-9-35

Examined and approved:

C. K. Green

Chief, Section of Field Records

L. O. Pollock

Chief, Division of Charts

F. S. Borden

Chief, Section of Field Work

G. H. Hinde

Chief, Division of Hydrography
and Topography.

Applied to chart # 440
May 29, 1936 J.H.S.