

5234

U. S. COAST & GEODETIC SURVEY  
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52346 letter

Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

\_\_\_\_\_, Director

State: Florida

DESCRIPTIVE REPORT

Topographic }  
Hydrographic } Sheet No. 5234

LOCALITY

Florida East Coast

Nassau Sound and Amelia River

193 4

CHIEF OF PARTY

S. B. Grenell

Applied to drawing of Chart 577 - Dec. 7, 1935 - JFW

Applied to new chart 841, March 24, 1936 - W.A. Bruder

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. 5234

State.....Florida.....

General locality.....Florida East Coast.....

Locality.....Nassau Sound and Amelia River.....

Date of Photographs: 11-24-33; 11-26-33

Scale.....1:10,000..... Date of survey.....Comp:....., 19.....

Vessel.....Aerial Photo Compilation Party #18.....

Reviewed and recommended for approval:

Chief of party.....Lieut. (j.g.) S. B. Grenell.....

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

Surveyed by.....

Inked by.....J. W. Osteen, 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.: (790) M-31 to 40

.....(790) M-100 to 111.....

--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. 5234

	(790) M-31	M-40
PHOTO NO.	(790) M-100	PHOTO NO. M-111
BY	START	FINISH
ROUGH RADIAL PLOT		
SCALE FACTOR (1.)		
SCALE FACTOR CHECKED	<u>S. B. Grenell</u>	
PROJECTION	<u>A. M. Gruber</u>	<u>6/18/34</u>
PROJECTION CHECKED	<u>F. B. Hickman</u>	<u>6-19-34</u>
CONTROL PLOTTED	<u>F. B. Hickman</u>	<u>6-19-34</u>
CONTROL CHECKED	<u>W. Fitch</u>	<u>6-20-34</u>
TOPOGRAPHY TRANSFERRED		
TOPOGRAPHY CHECKED		
SMOOTH RADIAL LINE PLOT	<u>F. B. Hickman</u>	<u>6-23-34</u>
RADIAL LINE PLOT CHECKED	<u>S. B. Grenell</u>	
DETAIL INKED	<u>J. W. Osteen, Jr.</u>	<u>7-17-34</u>
AREA DETAIL INKED	<u>20.1</u>	Square Statute Miles
LENGTH OF SHORE LINE OVER 200m.	<u>43.0</u>	Statute Miles
LENGTH OF SHORE LINE UNDER 200m.	<u>30.7</u>	Statute Miles
GENERAL LOCATION	<u>Florida East Coast</u>	
LOCATION	<u>Nassau Sound and Amelia River</u>	
DATUM STATION	<u>Sterrett 1861-1933</u>	LATITUDE <u>30 - 34 + 710.7M</u>
DATUM	<u>N. A. 1927</u>	LONGITUDE <u>81 29 + 556.2M</u>

UNADJUSTED

# INSPECTION REPORT

Sheet # 5234

## REFERENCE:

In reviewing this sheet in the Washington office reference should be made to the Report for Single Lens Sheets filed with sheet #5206.

## GENERAL INFORMATION:

This sheet covers the general area of Nassau Sound, Nassau River and South Amelia River. The wooded portions of this sheet are typical of this section, the growth composed of a mixture of oak and pine and some deciduous brush and scattering palm and scrub palmetto along the borders.

The marsh area offers no particular feature except in the upper reaches of the South Amelia River and Alligator Creek where the marsh spreads out in a broken formation with interspersed areas of mud flats which are awash or bare at low water. On the photographs the outlines of the deeper channels could be plainly seen by the variation in color even when the mud flats were covered with water. These channel edges have been indicated by a fine dotted line which agrees satisfactorily with the depth curves of the hydrographic sheets.

The sand bank shown in Lat. 30° - 30', Long. 81° - 26' was clear cut and definite on the prints. Local enquiry revealed that this bank shifts position and changes contour with every storm or abnormally high tide but the general shape and position remain the same. As shown on this sheet the bank is in the position of the date of photographs which was November 24, 1933.

The outer coast of Amelia Island is also subject to seasonal changes which accounts for the variation in high water lines between the plane table position and the celluloid compilation.

## CONTROL:

This sheet was entirely controlled by triangulation from the revision scheme of C. M. Durgin, 1932-33.

## LANDMARKS FOR CHARTS:

A list of landmarks has been submitted on form 567 by H. A. Paton, 1934.


## COAST PILOT NOTES:

Coast pilot notes have been submitted by H. A. Paton, 1934.

## NAMES:

All names appearing on this sheet were taken from current issues of charts.

Respectfully submitted,

  
S. B. Grenell,  
Chief of Party

REPORT OF COMPILATION:

COMPIATION METHOD:

This sheet was compiled by the standard radial plot method.

ADJUSTMENT OF PHOTOGRAPHS:

The radial plot on this sheet was good and the detail was very easily adjusted to the plot.

INTERPRETATION:

The majority of the photographs were clear and sharp, making it easy to interpret the topographic detail. On the northern corner of the sheet single lines of sand dots were used to outline sand bars and shoals which appeared to be awash at low water.

INFORMATION FROM OTHER SOURCES:

None except from members of field party who inspected this territory.

COMPARISON WITH OTHER SURVEYS:

All junctions with adjoining sheets are accurate.

ACCURACY AND COMPLETENESS:

The area covered by this sheet is complete in every detail as nearly as can be determined from the photographs and from reports by field parties.

All well defined detail located with a probable error of not more than 4 meters; less well defined detail with an error of not more than 10 meters.

PHOTOGRAPHS:

No.	to	No.	Date	Time	Stage of Tide
(790) M-31		M-40	11-24-33	12:45PM	5/6
(790) M-100		M-111	11-26-33	12:00	2/5

*J. W. Osteen, Jr.*  
J. W. Osteen, Jr.  
Draftsman

Approved: *S. B. Grenell*  
S. B. Grenell,  
Chief of Party

REVIEW OF AIR PHOTO COMPILATION T-5234 (Dec. 13, 1934)

Scale 1:10,000 Reviewed June 18, 1935.

1. Comparison with Graphic Control Survey T-6234 (September 1934) (Scale 1:10,000)

T-6234 was made after the air photo compilations had been made, and shows the compilation shoreline in pencil, with rodded sections in ink. The differences are discussed in the descriptive report T-6234 and in the following paragraphs.

Examination of the photographs in this office confirmed the plane table high water line near Anderson 2 1933 lat.  $30^{\circ}31.5'$ , long.  $81^{\circ}28.2'$ , except for the second creek discussed in the first paragraph of page 4 of the report on T-6234. No evidence of this creek could be seen on the photographs and it is not shown on the compilation. The remaining H. W. line was changed to agree with the plane table work.

Two piers over the marsh to the edge of Sawpit Creek were shown too long on the compilation and were changed to agree with T-6234 after replotting from the photographs. Five buildings were added to the compilation from T-6234 in the same vicinity.

The high water line around the southern end of Amelia Island was transferred from T-6234 to the compilation in this office, as being of later date than the photographs. The area is subject to rapid changes.

① Fox (Sawpit Creek Beacon No. 45) lat.  $30^{\circ}30.5'$ , long.  $81^{\circ}28.1'$  has not been transferred to the compilation since the notes on T-6234 states the beacon has been reported moved subsequent to the plane table survey.

All detail shown on T-6234 is shown on the compilation except for temporary topographic stations, Beacon 45, the magnetic meridian, <sup>old</sup> tide staff, and two ranges as follows:

(1) Sawpit Creek Range.

Lettered on T-6234 as  $319^{\circ}25'$  from north. Scaled in office by metal protractor as  $319^{\circ}27'$ . No evidence of point extension of the range being located to measure this range.

(2) Sawpit Creek Range No. 1.

Lettered on T-6234 as  $93^{\circ}37'$  from north. Scaled in office as  $93^{\circ}37'$ . Apparently measured in field from point located on extension of range line.

Scaled by D. H. Benson; Checked by V. R. Sobieralski.

2. Comparison with Graphic Control Survey T-6233 b (August 1934) (1:10,000).

The piers at Amelia City are in close agreement as shown on T-6233b and the compilation. The H. W. line behind the piers had differences up to 10 meters. Examination of the photographs under the stereoscope confirmed the graphic control survey and the compilation H. W. line was changed to agree. The long pier across the small creek south of Amelia City is shown longer on the compilation and on T-6233b than it appears to be on the photographs. It is assumed that it was under construction at the time the photographs were taken, and that it was added to the compilation in the field office from T-6233b.

The high water line near  $\Delta$  Gator 1933 lat.  $30^{\circ}33.9'$ , long.  $81^{\circ}29.9'$  contained differences up to 12 meters, although the small points are in close agreement. The differences were probably due to differences of interpretation. The compilation has ~~not~~ been changed.

The bluff line shown on T-6233b at Amelia City was added to the compilation.

A landmark submitted by H. A. Paton with the report on T-6233b was added to the compilation;  $\odot$  Dam (North Palmetto) lat.  $30^{\circ}35.1'$ , long.  $81^{\circ}29.3'$ .

All detail shown on T-6233b within the area of the compilation is shown on the compilation except the magnetic meridian and temporary topographic stations.

3. Comparison with Hydrographic Survey H-5798 (1935) (Scale 1:10,000).

There were small discrepancies in the shorelines of two small creeks on Amelia Island. Examination of the photographs confirmed the compilation, which was not changed. A note was penciled on H-5798 calling the discrepancies to the attention of the verifier.

There are large differences in the locations of the sand islands in the entrance of Nassau Sound. These islands are subject to frequent change and are shown on the compilation as plotted from photographs taken November 24, 1933. A later location is shown on a graphic control survey which has not as yet been received in this office, but was used by the hydrographic party. Because of the frequent changes in these islands it is not considered necessary to ~~change the compilation.~~ *hold up printing pending receipt of this control survey.*

4. Comparison with Hydrographic Survey H-5799 (1935) (1:10,000).

Only a short section of Pumpkin Hill Creek falls within the area of the compilation. A discrepancy occurred in the shoreline here. The photographs confirmed the hydrographic survey and the compilation was changed.

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5. Comparison with Hydrographic Survey H-5757 (1935) (1:10,000).

The compilation was in excellent agreement with H-5757 except for a portion of Harrison Creek, the shoreline of which seems to have been carelessly traced from the compilation on H-5757. The photographs confirmed the compilation.

A pile at lat.  $30^{\circ}35.4'$ , long.  $81^{\circ}28.6'$  was added to the compilation from H-5757. Another pile and some stakes at lat.  $31^{\circ}34.2'$ , long.  $81^{\circ}28.4'$  were also added from the hydrographic survey.

5. Comparison with Topographic Survey T-1232a (1871) (1:20,000).

There are minor changes in the islands and streams since T-1232a was surveyed. Amelia City has developed considerably since the old survey.

The greatest change has taken place at the entrance of Nassau Sound. A large irregular sand island is now in the entrance whereas only a small shoal is shown on T-1232a. The point of Amelia Island has been eroded northward about 500 meters. The point between Sawpit Creek and Nassau Sound has eroded northward about 130 meters.

T-1232a shows a bluff line on the western side of Amelia Island which is not shown completely on the compilation.

The compilation is complete and of sufficient accuracy to supersede T-1232a except for the bluff line mentioned.

6. Comparison with Topographic Survey T-4068 (1924) (1:20,000).

There is some change in the shape of the sand island in the entrance of Nassau Sound.

The high water line along the Atlantic side of Amelia Island is about 30 meters further west as delineated on the compilation than it was on T-4068.

Otherwise there has been little change in topography since 1924.

The compilation is complete and of sufficient accuracy to supersede T-4068.

7.- Comparison with the Charts 577, 1243, 3257.

Changes to be made on the charts as a result of this survey are discussed under the comparisons with old surveys.

All lights and beacons on the present chart and as noted in the 1935 light list are shown except Beacon 45 discussed on page 1 of this review. Lights and beacons shown as described stations were located in August

and September 1934.

~~Other~~ landmarks as shown on the present charts and as recommended by the recent ground surveys are shown.

8. General.

All recoverable plane table stations shown on the graphic control in the area of this compilation have been transferred to the compilation in this office and descriptions on Form 524 filed under No. T-6234 and T-6233b.

Transferred by *D. H. Benson* ; checked by *V. R. Sobieralski*

Triangulation Stations plotted in this office by D. H. Benson and checked by V. R. Sobieralski.

Δ Resort U.S. E. 1933  
Δ Sound 1934  
Δ Sawpit Cr. Beacon Light #54, 1934.  
Δ " " Range Rear Beacon #58, 1934  
Δ " " Range Front Beacon #56, 1934  
Δ " " Range #1 Rear Beacon, 1933  
Δ Mid, 1934  
Δ Sawpit Cr. Range #3 Rear Beacon, 1934  
Δ " " " " Front " , 1934

The breaks left in the high water line of the marshes on the northern half of T-5234 did not give the best interpretation. The photographs were examined and the H. W. line traced from them to give a continuous line. Otherwise, the drafting was very good on this sheet.

The additional names submitted in the report T-6233b were added to the compilation.

*Douglas H. Benson*  
*B. G. Jones*



## REVIEW OF AIR PHOTO COMPILATION NO. 5234

Chief of Party: S. B. GRENNELL

Compiled by: J. W. Osleen, Jr.

Project: F. P. 4, 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) *No supplemental surveys* ✓
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) ✓
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 submitted by H.A. Poton, 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 H.A. Poton, 1934*
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) ✓  
*No bridges*
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;

*Dec. 13, 1954*

*S. B. G. Hull*  
Chief of Party

19. Remarks after review in office:

*See following pages.*

Reviewed in office by: *Douglas H. Benson* 6/17/35  
*v B. G. Jones*

Examined and approved:

*C. K. Green*  
Chief, Section of Field Records

*L. Q. Robert*  
Chief, Division of Charts

*F. S. Borden*  
Chief, Section of Field Work

*G. W. de*  
Chief, Division of Hydrography  
and Topography.