

4094

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Form 504 DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY
State: <u>Florida</u>
11-5813
DESCRIPTIVE REPORT.
Topog. Sheet No. <u>(A) 4094</u>
LOCALITY:
<u>East Coast</u>
<u>Usina N. Beach to Crescent Beach</u> <u>and</u> <u>Vic. of St. Augustine Inlet</u>
<u>1924</u>
CHIEF OF PARTY:
<u>F. S. Borden</u>

DESCRIPTIVE REPORT

TO ACCOMPANY

TOPOGRAPHIC SHEET

NO. \_\_\_\_\_ (Field Letter A)

ST. AUGUSTINE INLET

FLORIDA.

June - July

1924.

Scale: 1: 20000

DESCRIPTIVE REPORT

TO ACCOMPANY

TOPOGRAPHIC SHEET

NO. \_\_\_\_\_ (Field Letter A)

ST. AUGUSTINE INLET

FLORIDA.

June - July  
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Scale: 1: 20000

LIMITS:

The work on this sheet covers St. Augustine Inlet, the coast for about five and one-half miles north and eight miles south of the inlet, and the inside passage for about three miles above and below the town of St. Augustine. The topography covered the water front only of the town. The data for the town layout was obtained from local engineers and is forwarded with this sheet.

CONTROL:

Seven triangulation stations were recovered in the city of St. Augustine and six were recovered on the outer coast, giving excellent control for the survey.

METHODS:

The main purpose of the sheet was to locate signals for hydrography and to show any important changes in the shoreline since the last survey.

Traverse was used on the coast and three point fixes were used almost exclusively in the inside passage. Traverses were run from  $\Delta$  Usina which almost coincides with  $\odot$  Us, to  $\Delta$  Cato, and from  $\odot$  Point to  $\Delta$  Cato.  $\odot$  Point was located by a cut from  $\Delta$  St. Augustine Lighthouse (new) and failed to close upon  $\Delta$  Cato by about nine meters in two miles and was adjusted accordingly while the traverse from  $\odot$  Point closed upon  $\Delta$  Cato exactly thus bringing this work well within the limits allowed.

Southward of the inlet traverse was run from  $\Delta$  St. Augustine Lighthouse (New) to St. Augustine Beach and from  $\Delta$  Louis to St. Augustine Beach. Here there was a failure to close by about twenty meters in three miles. As the line from  $\Delta$  Louis was run under better conditions and was shorter, this was assumed correct and the locations of the signals to the Northward adjusted accordingly. Later the part from St. Augustine Beach Northward was rerun to  $\odot$  Nat and the adjusted positions were found to be correct. Traverse was run from  $\Delta$  Louis to  $\odot$  End, checking in on  $\Delta$  March with a failure to close upon  $\Delta$  March of about eight meters in two and one half miles. This was adjusted proportionally.

Inasmuch as our work failed to check by about ten meters the locations of  $\odot$  End and  $\odot$  Bar, hydrographic signals located during the 1923 Survey, another traverse was run from  $\Delta$  Crescent northward to  $\Delta$  March. These locations of  $\odot$  End and  $\odot$  Bar agreed with the traverse run from the northward.

Bird Island was surveyed by a traverse run southward from  $\odot$  Bird which was located by intersection.

The shoals shown bare were located by plane-table at low water. The buoys in the entrance were located by the Topographer. These are being shifted frequently as the channel is constantly changing due to a swift tidal current through the inlet.

In the North River and Matanzas River where the shoreline was marshy it was impossible to locate high water line and the edge of the grass was shown upon this sheet as a light line.

#### GEOGRAPHICAL NAMES:

The river to northward of the inlet is known locally only as the North River instead of the Tolomato River as shown on the chart. For this reason the river has been shown on the sheet as "North River".

#### CHANGES NOTED SINCE 1860 SURVEY:

The shore line at the inlet has changed greatly since the last survey and is still changing rapidly. The peninsula to northward of the inlet is building out to the southward while erosion is taking place along the northern end of Anastasia Island. This erosion has been halted by jetties for a stretch of about three-fourths of a mile opposite the lighthouse, but at the southern end of Bird Island it is taking place at a rapid rate.  $\odot$  Nat, which was built and located in July on Anastasia Island fifteen meters from the high water line, fell into the water about five weeks later and the topography at this point was rerun to show the change. The first location of this shoreline is shown in pencil on the sheet.

Bird Island is constantly building up and is growing to the southward. A very swift current between Bird Island and Anastisia Island is responsible for these changes.

Little change seems to have taken place in the inside passage.

Respectfully submitted,

*Carl I. Aslakson,*

Carl I. Aslakson, Aid,  
U. S. C & G. S.

Approved:

*F. S. Borden*  
F. S. Borden,  
H & G Engineer,  
Chief of Party.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

WASHINGTON June 12, 1925.

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 4094

St. Augustine Inlet, Fla.

Surveyed in 1924

Instructions dated May 8, 1924.

Chief of Party, F. S. Borden.

Surveyed and inked by C. I. Aslakson.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of the survey conform to the requirements of the General Instructions.
3. The plan and extent of the survey satisfy the specific instructions.
4. The junction with recent work to the northward is satisfactory, but the overlap with T. 4037 (surveyed in 1923) on the south shows a difference in location of the high water line of 40 to 50 meters.
5. Attention is called to the fact that the descriptive report of H. 4435 states that the bridge over the Tolomato River is incomplete and that no work is being done on it. This modifies the information in letter 24 of 1924.
6. No further surveying is required within the limits of the sheet.
7. The character and scope of the surveying are very good and the field drafting is excellent.
8. Reviewed by E. P. Ellis, June, 1925.

TOPOGRAPHIC TITLE SHEET

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4094 (Field Letter A )

State FLORIDA . . . . .

General locality EAST COAST . . . . .

Locality Usina North Beach to Crescent Beach and Vic. of St. Augustine Inlet  
~~ST. AUGUSTINE INLET~~ . . . . .

Chief of party . . F. S. BORDEN. Sub-party in charge of L.D. Graham

Surveyed by . . . CARL I. ASLAKSON, AID. . . . . .

Date of survey . . JUNE - JULY, 1924. . . . . .

Scale . . . . . 1: 20000 . . . . .

Heights in feet above . . . . .

Contour interval . . . . feet.

Inked by C.I.A. . . . . Lettered by C.I.A. . . . . .

Records accompanying sheet (check those forwarded): Photographs,

- ✓ Descriptive report, Horizontal angle books, Field computations,
- ✓ <sup>(14)</sup> Descriptions of signals, <sup>(11)</sup> Recovery notes, <sup>(1)</sup> triangulation stations.
- Data from other sources affecting sheet <sup>(1)</sup> Map of St. Augustine
- from local sources, with notes pertaining to same.

Remarks: