

4037

Form 501

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: FLORIDA

11-8013

DESCRIPTIVE REPORT.

Topog. Sheet No. 4037

LOCALITY:

East Coast - Matanzas Inlet

Crescent Beach
to

Bikes Prairie

1923

CHIEF OF PARTY:

A. M. Sobieralski

4037

D E S C R I P T I V E R E P O R T

To accompany

TOPOGRAPHIC SHEET "A".

Northeast Coast of Florida.

Crescent Beach to Bikes Prairie.

U. S. S. LYDONIA

A. M. Sobieralski, Com'd'g.

The topography executed on this sheet was in the nature of revision work and was surveyed by a sub-party from the "LYDONIA", composed of one officer and three seamen. The method used in making this survey was the usual plane-table and stadia method.

The portion of the sheet between the northern limits and station Corbett was surveyed in January; the party leaving the ship at Jacksonville on the 22nd and returning to Jacksonville January 26th. No projection had been made at this time and so a sheet was used on which had been plotted the distance between stations Crescent and Corbett. This work was later transferred to the Topographic sheet. Quarters were had, during this period at Middleton's Place, Crescent Beach.

The remainder of the sheet, - that is, the portion between station Corbett and the southern limits was surveyed in March. The party left the ship in Jacksonville on March 13, in the motor-sailer, together with a signal building party under Mr. Mower, reaching St. Augustine that night. The topographic party stayed here until March 19, installing an automatic tide gauge. On that date they left by boat for Summer Haven, and were quartered there for the rest of the work. Excepting two days, working grounds were reached from here by walking along the beach. On the two days excepted the motor-sailer was borrowed from the signal building party to reach the southern end of the work. The sheet was completed on March 30th, the party returning by boat to St. Augustine on that date and then by train to Jacksonville on the following day.

Eighteen small signals were built and located for the launch hydrographic party and the positions of four houses which could be used for hydrography control were determined. They are all given in an accompanying list of plane-table positions. The signals built were not marked as time did not permit of that.

The following traverses were run, with their approximate length and errors of closure. From station Crescent to signal End and back to station Crescent, a distance of 3850 meters: no error. From station Crescent to station Corbett, a distance of 6925 meters: error of closure, 16 meters. This traverse was adjusted. From station Virtrees Chimney to station Corbett, a distance of 2200 meters: no error. From station Box to station Virtrees Chimney, a distance of 3450 meters: ~~an~~ error of closure 30 meters. This traverse was rerun, again rodding in each signal and the topography adjusted for the error found. There was no error in this second traverse. From station Scott to station Box, a distance of 4000 meters: no error. From station Scott to station Rheems, a distance of 6000 meters: error of closure 32 meters. This traverse was adjusted. This last traverse was run before station Rheems was located, and therefore the error of closure could not be determined until at a later date, when the position was computed. The error of closure is shown on the sheet by a double-headed arrow.

Examination was made along the coast for any features which were not shown on the chart of that locality and these differences were surveyed.

Among these new features are two wrecks, the "Isis" and the "Northwestern". They are both submerged and lie about a quarter of a mile off shore. The "Isis" bares her davits at low water and the "Northwestern" bares a portion of her hull.

There are two small settlements, Crescent Beach and Summer Haven, shown which have not heretofore been charted. Crescent Beach consists of a few cottages and a boarding house. The latter is known as Middleton's and is situated on the Matanzas River. Summer Haven, in addition to about a dozen cottages has a small hotel named Seacrest Inn. The owner runs a small general store and sells gasoline in very limited quantities, usually not exceeding 50 gallons at a time. There is a post office at both Crescent Beach and Summer Haven. Boats which use the inside route in this locality will have sufficient water to make Summer Haven, if they approach it from the northward. There is a rock, awash at low water, which lies about 50 meters off of the hotel dock. Middleton's dock at Crescent Beach is on the Matanzas River and has sufficient water for boats using this river to tie alongside. The only regular means of transportation to these places is by the mail boat from St. Augustine which makes round trips on Mondays, Wednesdays and Fridays. Crescent Beach can be reached by auto from St. Augustine.

A tracing was made of the surveyed shoreline and compared with two bromide copies of previous surveys. Apparently there has been no change in the general coastline. At Matanzas Inlet, however, there was found to be quite a difference. A comparison of the three surveys is shown on a tracing submitted with this report. The surveys of 1867 and 1872 do not agree well among themselves, especially on the north spit. It is supposed that the cause of this is that the survey of 1872 may have been made after a heavy northeast storm. It is quite evident, however, that the inlet is gradually working to the southward. This would seem to be natural as the channel lies on the south side and there is quite a strong tidal current thru there. Very few boats use this inlet, and then only with good local knowledge. While the party was engaged in topography in this vicinity only one boat was seen to pass out.

This boat followed the south shore, passing from 50 to 75 meters off and then headed straight out thru an opening in the breakers which was not visible to the topographer from shore. This was at high tide, with a fairly smooth sea. The rocky ledge, described in the coast pilot, could not be seen.

The beacons marking the inside route channel for boats passing the inlet are not shown correctly on the chart, but are described correctly in the Inside Route Coast Pilot. A detail, scale 1/10,000 was made of the Inlet and this shows the positions of these beacons clearly.

Along the shoreline for the entire length of the sheet, with the exception of a strip between stations Box and Scott, is a hard well-packed sandy beach, typical of the beaches along the east coast of Florida. The portion left bare at low water is sufficiently hard to support a heavy vehicle. Between stations Box and Scott the beach is piled high with bowlders, and along the southern half a rocky ledge could be seen just beyond low water. This ledge was sketched in as closely as possible.

The form, Landmarks for Charts, is submitted with this report, giving the positions of three landmarks. Two of them are the wrecks, heretofore described, - the Isis and the Northwestern. The third is the station Virtrees Chimney. This chimney is a small brick one about ten feet high and is on the largest house at Summer Haven. It can be seen above the skyline when several miles off the beach; further than that it blends into the background. The country along the coast is flat and gives the appearance from seaward of being covered with trees. The trees are about 50 or 75 feet high. No other landmarks exist in the area covered by this sheet.

The declinoire could not be made to work properly and therefore no magnetic meridian was drawn.

Respectfully submitted:

April 30, 1923.



R.F.A. Studds,
Jr. H. & G. Eng'r.,
Topographer.

PLANE TABLE POSITIONS-

HYDROGRAPHIC NAME	LATITUDE	D.M.	LONGITUDE	D.P.	REMARKS AND DESCRIPTION
End	29° -- 47'	898 (949)	81° -- 15'	976 (637)	Temporary signal.
Bar	29 -- 46	1753 (94)	81 -- 15	744 (869)	Temporary signal.
Red	29 -- 46	305 (1542)	81 -- 15	290 (1323)	Red roofed house.
Pole	29 -- 45	1557 (290)	81 -- 15	108 (1505)	Temporary signal.
Cat	29 -- 45	802 (1405)	81 -- 14	1471 (142)	Temporary signal.
Mid	29 -- 45	06 (1841)	81 -- 14	1209 (404)	Temporary signal.
Flag	29 -- 44	1106 (741)	81 -- 14	950 (663)	Temporary signal.
Bell	29 -- 43	1804 (43)	81 -- 14	545 (1068)	Temporary signal.
Top	29 -- 43	849 (998)	81 -- 14	151 (1462)	Temporary signal.
Dune	29 -- 42	1155 (692)	81 -- 13	1142 (471)	Temporary signal.
You	29 -- 41	952 (895)	81 -- 13	468 (1145)	Second house from N. in group of four.
Tell	29 -- 40	1826 (21)	81 -- 13	152 (1461)	Temporary signal.
Him	29 -- 40	732 (1115)	81 -- 12	1403 (210)	Temporary signal.
Stud	29 -- 39	835 (1012)	81 -- 12	759 (854)	Temporary signal.
At	29 -- 38	1573 (264)	81 -- 12	349 (1264)	Temporary signal.
Sut	29 -- 38	946 (901)	81 -- 12	128 (1485)	Temporary signal.
Duk	29 -- 37	695 (1152)	81 -- 11	958 (655)	Temporary signal.
Lone	29 -- 36	1802 (45)	81 -- 11	667 (946)	Isolated House.
Bam	29 -- 36	1033 (814)	81 -- 11	385 (1228)	Temporary signal.
New	29 -- 36	55 (1792)	81 -- 11	51 (1562)	Isolated House.
Sun	29 -- 35	1062 (787)	81 -- 10	1348 (265)	Temporary signal.

81°14'

81°13'

29°43'

29°43'

ATLANTIC

MATANZAS INLET

OCEAN

29°42'

29°42'

Comparison of Topographic Surveys made of MATANZAS INLET, FLORIDA

Legend

Survey of year 1867 - Blue — (Sheet 1082)
 " " " 1872 - Red — (Sheet 1268)
 " " " 1923 - Black — (Sheet "A")

Scale 1/20,000

To accompany Topographic Sheet "A" - Party of U.S.S. Lydonia, Season 1922-23.

A.M. Sobieralski, Commanding.

81°14'

81°13'

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

November 28, 1923.

Section of Field Records

Report on Topographic Sheet No. 4037

Matanzas Inlet, Florida

Surveyed in 1923

Instructions dated November 4, 1922

Chief of Party, A. M. Sobieralski

Surveyed and inked by R. F. A. Studds.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of the survey fulfill the requirements of the General Instructions and satisfy the specific instructions.
3. The junctions with previous surveys are satisfactory. A comparison with them shows that the inlet has moved about 100 meters southward. The shoreline has moved seaward about 30 meters at the north end of the sheet, and it has receded about the same amount at the south end.
4. No further surveying is required within the limits of the sheet.
5. The character of the surveying and field drafting is excellent.
6. Reviewed by E. P. Ellis, November 28, 1923.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 4037 (A)

State FLORIDA

General locality . . ~~NORTHEAST COAST.~~ Matanzas Inlet

Locality CRESCENT BEACH TO BIKES PRAIRIE

Chief of party . . . A. M. SOBIERALSKI

Surveyed by . . . R. F. A. STUDDS

Date of survey . . . JANUARY AND MARCH, 1923.
1:10,000

Scale 1/20,000

Heights in feet above . . . - - - -

Contour interval feet.

Inked by R. F. A. S. . . Lettered by R. F. A. S.

Records accompanying sheet (check those forwarded): Photographs,

(in duplicate)
Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet Extra sheet from which
data was transferred to this sheet. Two bromide copies
of previous surveys.

Remarks: