



3623

C. & G. SURVEY
L. & A.
Aug. 31 1916
Acc. No.

Form 504
DEPARTMENT OF COMMERCE
 U. S. COAST AND GEODETIC SURVEY

State:

11-5013

DESCRIPTIVE REPORT.

Top Sheet No. **3623**

LOCALITY:

191

CHIEF OF PARTY:

3623

DESCRIPTIVE REPORT

to Accompany

TOPOGRAPHIC SHEET No. 3623

U S C & G S Steamer ISIS

March - May

1916

Gilbert J. Rude
Assistant, Chief of Party,
U S C & G Survey.

Extent of Work:

No formal instructions were received relative to this work. This work was performed in accordance with instructions contained in a letter received from the Superintendent, which has since been mislaid in the files of this vessel.

on this sheet

Field work/was commenced on March 2, 1916 and lasted until May 26, 1916. The work was carried on at various times, when the weather permitted, whenever the ISIS was in port for coaling or other purposes.

The actual topography completed extends along the water front on the Ashley River from the "New Bridge" to the Battery, and from the Battery along the dock line and up Town Creek to the new coal dock of the Southern Railway Co. Above this a plane/table triangulation was carried up the Cooper River to the Navy Yard, where a number of prominent objects were located, by means of which the Navy Yard can be swung on the sheet by using the plans furnished by the Commandant of the Navy Yard.

In connection with this work all important improvements were surveyed, and all beacons, including the two new white ranges for entering Wapoo Creek, many prominent objects, such as tanks and chimneys suitable for control for future chart revision, and signals for the hydrographic surveys made off the Battery and the coal dock of the Southern R.R. were located by the table.

Control and Survey Methods:

A plane/table triangulation was carried up the Cooper River to Station "Clam 2" on Daniels Island, using triangulation stations St. Michaels Church and Fort Ripley Shoal L.H. as a base, and also employing triangulation station Elevator. During the progress of this it was discovered that the geographical position of triangulation station Tall New Stack, 1910, was in error some fifty meters, and this was subsequently located

by triangulation. In surveying the water front, the table was located whenever possible by the three point problem, short traverses of two or three set-ups being necessary between such locations.

The work along ^{the} Ashley River was controlled by a number of old triangulation stations, principally the two range beacons, and by several prominent objects located by the planetable.

The Standard Oil Company's dock and pipe line, the Seaboard Air Line R.R., and the shore of Drum Island were located by sextant angles. The outer edge of the marsh adjacent to the Southern R.R. coal dock, to the N. E. R.R. upper station, and that above the New Bridge on the Ashley River, were sketched in by tangents and estimated distances.

Subsequent to the completion of the field work, several prominent objects located by the table were cut in by triangulation, St. Michaels Church and station "Hob" (a station of the U.S.E. Dept) being occupied. The objects thus located are the two wireless masts in the Navy Yard, the Tall New Stack referred to above, and two of the most prominent water tanks. These objects are distinguished on the projection by an asterisk.

An unsuccessful attempt was made, prior to the survey, to recover triangulation stations "Cemetery" and "Clam". It is highly probably that the former was lost during the construction of a retaining wall near its site; while it was found that the site of the latter is now twenty-seven meters outside of high water.

Navy Yard:

The planetable triangulation was carried from station "Clam 2" up the Cooper River to the Navy Yard, all beacons and prominent objects being cut in, and the wireless masts, several chimneys, gables, and the

flag staff were located on the projection and were identified with points on the blueprints furnished the ISIS by the Commandant of the Charleston Navy Yard. Such points are marked by a reference letter both on the projection and ^{on} the plan marked "The U.S. Navy Yard, Charleston, S.C."

It was discovered that the position of both wireless masts, as determined by the triangulation, were ten meters almost due south of their location by the table, and all points located in the Navy Yard were corrected by this amount. It was found that the relative distances between the points located as determined from the projection and from the blueprint in no case disagreed by over three meters.

Improvements:

A large number of changes and improvements were found in the area surveyed, the most important of which includes the new coal dock of the Southern Railway Company, the new Lighthouse Depot, the "Clinchfield Development", which includes the filling in of large areas of marsh land and is at present incomplete, the new Clyde Line docks, the Emigration Station (at present not in use), the Southern Railroad docks, the Standard Oil dock, and the West Point Rice Mill.

Practically the entire dock line from the Yacht Club to the Power House was found to be changed, only a very few of the docks in the neighborhood of the Custom House agreeing with those charted. Many of the old docks still exist as ruins, being *partially* covered with mud and lying to a great extent below high water line. Similarly the shore line from the Lighthouse Depot to the New Bridge was found to be greatly changed.

Approved:

Respectfully submitted,

Gilbert J. Rude
Ch. of Party, C & G S.

J. J. Shack
Aid, U S C & G S.

PLANETABLE POSITIONS TO ACCOMPANY TOPOGRAPHIC SHEET NO. _____

Object and description	Latitude		D.M.	Longitude		D.P.
	o	'	meters	o	'	meters
Red Water Tank	32	44	1640	79	56	1020
Windmill	32	45	771	79	57	911
N.W. Corner White House	32	45	980	79	57	402
Wappo Creek Rear Range Beacon	32	46	28	79	57	1074
Wappo Creek Front Range Beacon	32	46	233	79	57	728
Beacon No. 2	32	46	722	79	56	1557
North Chimney Castle Pinckney	32	46	772	79	54	848
Beacon No. 3	32	43	1845	79	54	1260
Beacon No. 6	32	48	654	79	55	1127
Beacon No. 5	32	48	1610	79	55	1017
Beacon No. 8	32	49	221	79	55	942
Beacon No. 5-A	32	49	1458	79	56	16
Beacon No. 10	32	49	1600	79	55	826
Grey Chimney	32	50	40	79	56	814
Grey Chimney (small stack near)	32	50	393	79	56	1204
Beacon No. 7	32	50	635	79	55	1164
Beacon No. 9	32	50	1681	79	56	31
Beacon No. 11	32	51	170	79	56	480
<u>Objects in Navy Yard</u>						
Chimney (a) S.E. of building #13, west of north Wireless Tower	32	51	1185	79	57	1140
Building #13, E. Gable (d)	32	51	1211	79	57	1162
Chimney, Building #32 (c)	32	51	1408	79	58	31
Building #2, East gable (b)	32	51	1774	79	57	1435
Flagstaff (a)	32	52	139	79	57	1456

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. 3623

State South Carolina

General locality Charleston

Locality Water front from New Bridge on Ashley River to Navy Yard on Cooper River

Chief of party G.T.Rude, Ass't.

Surveyed by R.P.Strough, Ass't., T.J.Shack, Aid,
E.S.Plunkett, D.O.

Date of survey March 1916 . . . to . . . May 1916 . . .

Scale 1 : 10,000

Heights in feet above

Contour interval feet.

Inked by T.J.Shack . . . Lettered by . . . T.J.Shack

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet . Blue prints of . . . drawings furnished by Commandant Charleston Navy Yard:-

- (1) General Layout of Navy Yard showing Monuments
- (2) Map showing Boundaries of Lands forming Naval Reservation
- Remarks: (3) U.S.Navy Yard, Charleston, S.C.

Note:- Signals marked with a red circle followed by an asterisk, were located by plane table, and, subsequent to the completion of the topography, were located by triangulation.