

4104

U. S. SHIPYARD

MAR 29 1920

Ann. No.

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: *Virginia*

11-5013

DESCRIPTIVE REPORT.

Hyd. Sheet No. **4104**

LOCALITY:

Elizabeth River

Naval Operating Base

Virginia

1917-20

CHIEFS OF PARTY:

H. A. Searan and J. D. Powell

4104

DESCRIPTIVE REPORT

MAR 29 10 46 AM '20

To accompany hydrographic sheet, New Naval Base, Sewall Point, Va.

November - December, 1919; January, 1920

OFFICE
NAVY
MAGNETISM

H. A. Seran and J. D. Powell, Chief of Party.

Scale 1:5000

The hydrography shown on this sheet was done at the request of the Navy Department with the view of showing the present hydrographic conditions of the waters adjacent to the New Naval Base. Since much dredging and filling operations have been completed since the previous survey was made in the summer of 1917 this sheet supplements and revises previous work in the coinciding areas.

2. Although it was the original intention to cover by hydrography all the waters adjacent to the Naval Base, including Boush Creek, this was made impossible by reasons beyond the control of the Survey and this sheet therefore shows only a small portion as resurveyed. The portion completed may be described as beginning at the southern boundary of the Naval Base opposite the Pine Beach ferry pier and extending northward to the entrance of the Submarine Basin. The work extends in an east and west direction to the east side of the channel leading from Naval Base past Tanners Point.

3. Sounding lines were run on natural ranges formed by many objects on shore. Owing to strong tide rips, winds and the season of the year it was found impossible to run continuous parallel lines of sounding and the lines are therefore dense in some places and sparse in others; also some of the lines run in a zig-zag fashion. In general direction, however, the lines adjacent to the west face of the Naval Base were run east and west beginning at the west face of Naval Base and extending out to the channel. All work was done in a whale-boat.

4. The signals used in this survey had for the most part been located by previous triangulation. However, many new signals were selected and cut in by the planetable.

5. The tides were read on a staff erected on the Pine Beach ferry pier at the southern boundary of the Naval Base. This staff was connected up with bench marks on the pier and one near the eastern end of the southern boundary of Naval Base. The plane of reference mean low water reads 1.8 on the staff.

6. In comparing present status of hydrography with that as determined in 1917, it is found that numerous changes have been made. The previous shore line has been moved out seaward on an average of about 300 meters by filling in and that almost the whole area from the east wall of the Submarine Basin to the channel has been made deeper by extensive dredging. Many piers have been constructed with channels of between 35 and 40 feet leading to them.

7. The area extending from Pine Beach ferry to the entrance to the Submarine Basin was surveyed by the party in charge of Captain Seran from November 25 to December 17, while the lines run in a north and south direction off the north face of the Base were run by Mr. Powell. Mr. Powell had charge of the party from November 18, 1919, to February 13, 1920.

8. It is considered that the sheet submitted will serve as a smooth hydrographic sheet, although my original verbal instructions from the Chief of the Section of Field Work were to the effect that lines and soundings were to be plotted and traced for the purpose of obtaining as soon as possible a comparison with the work previously accomplished. The tracing showing the soundings and shore line in ink is submitted herewith.

Respectfully submitted,

L. M. Zeskind

~~Jr. H. and C. Engr.~~
and

Note: The above described sheet was plotted by Mr. Zeskind, who assisted Mr. Powell in the survey.

AND REFER TO NO.

41-~~ZMK~~

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

March 18, 1920.



Division of Hydrography and Topography:

Division of Charts:

Tidal reductions are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET ~~4105~~ 4104

Off Naval Operating Base, Elizabeth River, Va.
H.A.Seran and J.D.Powell in 1919

Plane of reference is
Mean low water, reading

1.8 ft. on tide staff at Pine Beach Ferry.

Condition of records:

- (a) Time meridian is uncertain.
- (b) No record of persons making and checking reductions.

E. Wade

Chief, Section of Tides
and Currents.

*Forwarded
M. S. Parker*

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

SECTION OF FIELD RECORDS.

REPORT ON HYDROGRAPHIC SHEET No. 4104

Surveyed in 1919.

Chief of Party: H. A. Soren.

Surveyed by R. L. Schopps,
J. D. Powell and O. S. Reading.

Protracted and soundings plotted by J. D. Torrey.

Inked and verified by H. E. MacEwen.

1. Three days' north of the Training Station was rejected by order of Capt. Derickson because it did not come up to C. & G. S. Standards.
2. The records of the balance of the work conform to the requirements of the General Instructions except that the boat's course was never given, and the beginnings and endings of sounding lines were seldom described.
3. The plan and character of development does not conform to the General Instructions in that there are no cross sounding lines.
4. The depths on this sheet are very erratic. This is probably due in part to dredging and lumpy condition of the bottom. It is undoubtedly due in some cases to defective sounding lines. The failure to run check lines makes it impossible to differentiate between the good and bad lines.
5. The boat sheet was submitted with the statement that it should be used as a smooth sheet, but the protracting was found to be so defective that a new sheet had to be prepared in the office.
6. This work was done at the request of the Navy Department and no specific instructions were given by the C. & G. Survey as to the plan and extent of the development. It is presumed that the wishes of the Navy Department have been complied with and that no further surveying is required. It should be noted that the Channel along the north face of the Naval Training Station was not surveyed.
7. The surveying was fair and the field drafting (referring to the sheet submitted) was poor.
8. Reviewed by E. P. Ellis, June 13, 1921.
9. Two copies of this report to be sent to Division of Hydrography and Topography.

DIRECTOR
ADDRESS THE ~~SECRETARY~~
U. S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 41-MPG

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

August 20, 1920.



Division of Hydrography and Topography,

Division of Charts:

Tidal reductions are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 4 1 0 4

Off Naval Operating Base, Elizabeth River, Va.
H. A. Seran and J. D. Powell in 1919 and 1920.

Plane of reference is
Mean low water, reading

1.8 ft. on tide staff at Pine Beach Ferry.

Condition of records: Fair.

Note: See Tide Note for H.S. 4104 dated
March 18, 1920.

A handwritten signature in cursive script, appearing to read "G. L. Powell".

Chief, Section of Tides
and Currents.

4104

State Virginia
General Locality Hampton Road
Locality - Elizabeth River off Naval Operating
Base

Surveyed by - H. A. Kesau & J. D. Powell

Date — Nov. - Dec - 1919 Jan - 1920

Scale 1:5000

Projected by L. M. Ziskind
Sounding Plotted by Do
Indexed by