

# 4962

Diag. Cht. No. 1222-2

Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY R. S. Patten, Director	
State: Virginia	
G. & G. SURVEY L. & A. MAR 20 1940 Acc. No.	
DESCRIPTIVE REPORT	
<del>Topographic</del> Hydrographic	Sheet No. <sup>2</sup> 4962
LOCALITY	
Norfolk	
Crane Island Channel and Entr. to Western Branch, Elizabeth R.	
1930.	
CHIEF OF PARTY	
H. E. Finnegan	

# 4962

DESCRIPTIVE REPORT

to accompany the

HYDROGRAPHIC SHEET #2

Craney Island Channel and Western Branch of Elizabeth River,  
Norfolk, Va.

INSTRUCTIONS:-

This work was executed in accordance with original instructions dated July 20, 1929 - supplemental instructions dated Sept 30, 1929 and verbal instructions to the Chief of Party as a result of conferences from time to time with the Division of Charts and the cartographer compiling the chart of Norfolk during the progress of the survey.

METHODS:-

Gas launch #65 was used in the Craney Island Channel and at the Entrance to the Western Branch. A skiff, with outboard motor attached, was used for the shoal inshore work along the south shore of the Western Branch.

Soundings were obtained by hand lead while using launch #65. A 12 foot pole was used to obtain soundings on the skiff work.

DISCREPANCIES:-

There is considerable change in the curves at the Entrance to Western Branch. The latest survey at the Entrance by the U. S. Engineers' Department was checked by the survey and indicates that their latest survey of the river, may be safely used, as was decided in the conference between the Chart Division and the Chief of Party during the progress of the work.

The depth in the Craney Island Channel is less than the dredged depth as given on the present chart.

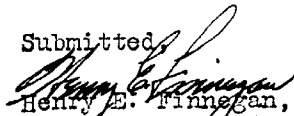
CHANNEL:-

The survey of the Craney Island Channel was accomplished to determine its location because the information on the existing chart was believed to be doubtful.

COMPARISON WITH PREVIOUS SURVEYS:-

As noted above under Discrepancies the Entrance to Western Branch has changed considerably. Combining the Army Engineers work with this sheet, a complete new survey of this changeable area may be charted.

Respectfully Submitted,

  
Henry E. Finnegan,  
Jr. H. & G. Eng'r.,  
U.S. T. & G. Survey,  
Chief of Party.

STATISTICS OF HYDROGRAPHIC SHEET #2

DAY	NUMBER OF POSITIONS	NUMBER OF SOUNDINGS	STATUTE MILES OF SOUNDING LINES
a.	112	330	10.6
b	120	330	10.0
c	44	168	2.0
d	82	246	5.0
<b>TOTALS</b>	<b>4</b>	<b>358</b>	<b>1074</b>
			<b>27.6</b>

LIST OF HYDROGRAPHIC SIGNALS - SHEET #2

HYDROGRAPHIC NAME	STATION NAME OR DESCRIPTION	YEAR OF LOCATION
Twin	S ' ly of two tanks	1930
Pot	Sewall 's Point Rear Range	1919
Tre	Tree	1930
Don		1930
Ham	Iron Stack	1930
Tank	Tank	1930
Bar	Telephone Pole	1930
Tel.	" "	1930
Cran	Craney Island Lt. Ho.	1919
Tow	Tower #3	1930
Wer	Tower #2	1930
Chim	Tall chimney	1929
Stack	High Stack	1919
Cor	Tank #7	1919
Mill	Windmill, Western Branch	1929
Draw	Center of Draw - Churchland Bridge	1929
Love	Love	1929
Doc	Dock	1929
Bee	Lamberts Point Rear Range	1919
Red	" " Front "	1919
End	N. E. corner of dock, entrance to Western Branch, south side.	1930
Tan	Tank #2	1916
WAK (	U S E D Station	1928

## TIDAL DATA

### LOCATION:-

For Craney Island Channel and for the work at the Entrance to Western Branch on January 8, 1930, Naval Operating Base Tide Gauge readings were used to reduce the soundings. (On January 8th. the portable tide gauge installed in the Western Branch failed to operate.)

For the hydrography in the Western Branch the tide gauge readings, obtained from a portable tide gauge installed at the N.Y. P. & N. R. R. piers at the Entrance to Western Branch, were used.

### RELATION TO PLANE OF REFERENCE:-

Reading on Naval Operating Base Tide Gauge for Plane of Reference 3.4 feet.

Reading on tide gauge at Entrance of Western Branch for Plane of Reference. 4.0 feet.

### TIDES

	HIGH	LOW
Naval Base	5.3'	- 2.5'
W. Br.	4.3'	- 0.3'

(FOR THE FILES OF THE FIELD RECORDS SECTION)

March 22, 1930

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in  
 1 volume of sounding records for

HYDROGRAPHIC SHEET 4963

Locality: Norfolk, Va.

Chief of Party: H. E. Finnegan in 1930

Plane of reference ~~Mean low water, reading~~ above datum of tabulations at Naval Base, Hampton Roads  
 3.4 ft. on tide staff at  
 13.6 ft. Below B. M. 8

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

Chief, Division of Tides and Currents.

Section of Field Records  
Report on sheet no 4962

Surveyed in 1930 Instructions dated 7/29/21 and 9/30/29

Chief of Party - Henry E. Finnegan

Subsided by - Henry E. Finnegan

Projected by - Robert A. Marshall

Sounding plotted by - Robert A. Marshall

Verified and inked by - J. M. Church

1. The records conform to the requirements of the General Instructions
2. The plan and character of the development fulfill the requirements of the General Instructions.
3. The usual depth curves can be completely drawn within the limits of the survey.
4. The field plotting was completed to the extent prescribed in the General Instructions
5. The office draftsman did not have to do over any part of the field drafting, except replot a few erroneous plotted positions
6. There are no contemporary adjacent sheets.

7. Remarks:-

The work was very neatly plotted.  
T- 4492 shows channel stakes which do not locate the existing position of Craney Island Channel; therefore



H- 4962 Contd.

The stakes are not shown on this sheet.  
A submerged pipe line crosses Craney  
Island channel.

March 29, 1930

Respectfully submitted  
JAC Church

AND REFER TO No. 11-WSW

DEPARTMENT OF COMMERCE .

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

August 26, 1930.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4962

Vicinity of Norfolk, Virginia

Surveyed in 1930

Original instructions dated July 20, 1929 (Lieut. R.F.A.Studds)

Supplemental instructions dated September 30, 1929 (Lieut.R.F.A.Studds)

Hand lead and Pole soundings

Chief of Party, H. E. Finnegan.

Surveyed by H. E. Finnegan.

Protracted and plotted by R. A. Marshall.

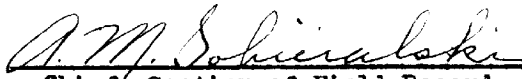
Verified and inked by J. H. Church.


1. The records conform to the requirements except that no compass courses were recorded.
2. The plan, character and extent of the survey satisfy the general and specific instructions. The amount of work to be done was left to the judgement of the chief of party in the modified instructions.
3. There are practically no cross lines but the soundings on adjacent lines agree well.
4. Within the limits of the work the information is sufficient for drawing the usual depth curves.
5. There are no junctions with contemporary hydrographic sheets.
  - a. The eastern limits of the work in Craney Island channel agree well at the junction with the survey of 1919, H. 4084. The depth in this channel is less than the dredged depth as given on chart No. 400. It is noted that the stakes located on T. 4492 do not define the present channel.
  - b. The junctions with the Engineer's surveys are satisfactory. The agreement with the 1929 survey, Bp. (Blue Print) 22,870, at the entrance to Western Branch, is excellent.
  - c. It is noted that signal Draw, which is the center of the draw on Churchland Highway Bridge, does not fall over the

deepest water. The channel on the western side of Western Branch is covered by recent Engineer's surveys.

6. The usual amount of field plotting was well done by the field party.
7. Character and scope of surveying --- very good.
  - a. The work is intended to supplement the Engineer's surveys and fill in a few blank spaces, which purpose has been accomplished. In the vicinity of Long. 76° 20', it would have been desirable to have extended the work to the south as far as signal Dock, as it was necessary to use the Engineer's survey of 1926 in charting this rather changeable area.
8. No additional work is recommended.
9. Reviewed by R. L. Johnston, April 12, 1930.

Approved:

  
Chief, Section of Field Records (CHARTS)

  
Chief, Section of Field Work (H. & T.)

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4962

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 2

REGISTER NO. **4962**

State Virginia

General locality Vicinity of Norfolk, Va.

Locality Craney Island Channel and Entrance to Western Branch, Elizabeth R.  
~~Craney I., Entrance to Middle Branch, Little River and Western Branch~~

Scale 1:10,000 Date of survey Jan. 8 - 17, 1930

Vessel Launch #65 and Skiff

Chief of Party Henry E. Finnegan

Surveyed by Henry E. Finnegan

Protracted by Robert A. Marshall

Soundings penciled by R. A. M.

Soundings in ~~fathoms~~ feet

Plane of reference M. L. W.

Subdivision of wire dragged areas by \_\_\_\_\_

Inked by \_\_\_\_\_

Verified by \_\_\_\_\_

Instructions dated July 20, 1929 & Sept. 30, 1929, 19

Remarks: \_\_\_\_\_

August 26, 1930.

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