

5968

U. S. COAST & GEODETIC SURVEY
LIBRARY AND RECORDS
MAR 20 1934
At. No. _____

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 2
Hydrographic }

State VIRGINIA

LOCALITY

Mouth of Nansemond River and
Chuckatuck Creek.

1934

CHIEF OF PARTY

J. C. Bose

5968

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
MAR 20 1936
REG. NO.
Acc. No.

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. **H5968**

State VIRGINIA

General locality _____

Locality Mouth of Nansemond River and Chuckatuck Creek.

Scale 1: 10 000 Date of survey December, 1934

Vessel Launch WELKER

Chief of Party J. C. Bose

Surveyed by J. C. Bose

Protracted by R. H. Carstens

Soundings penciled by R. H. Carstens

Soundings in ~~XXXXXX~~ feet

Plane of reference Mean low water

Subdivision of wire dragged areas by _____

Inked by G. H. Everett

Verified by G. H. E.

Instructions dated Jan. 23, 1934; Jan. 26, 1934; Nov. 13 19 34

Remarks: _____

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SHEET (FIELD) NO. 2

INSTRUCTIONS:

The survey was made in accordance with Instructions dated January 23, 1934 and Supplemental Instructions dated January 26, 1934; also Supplemental Instructions dated November 13, 1934. The instructions of January were issued to the commanding officer of the Ship OCEANOGRAPHER but, although the hydrographic and topographic work was done by the launch WELKER under the charge of J. C. Bose, the same instructions were carried out.

LIMITS:

The area surveyed is that part of the Nansemond River north of latitude $36^{\circ}-53'$ and east of longitude $76^{\circ}-30'.6$ (but including Bennett's Creek) and Chuckatuck Creek. The entire work that had been planned was not completed, as the party was instructed to undertake a new project. The area covered, however, is complete as far as the work was carried.

SURVEY METHODS:

The survey was made by means of the conventional method of launch hydrography. Positions were determined by visual sextant fixes and soundings taken by hand lead and sounding pole. The boat used was a twenty foot flat-bottom gondola propelled by an outboard motor.

DISCREPANCIES:

There are no discrepancies in positions. No discrepancies in soundings were noted which can^{not} be explained by the steep slope

of the sides of the channels.

CHANNELS:

There are three channels on the sheet. The main one is the channel of the Nansemond River, from Halfpone Shoal Beacon through the draw of the Nansemond River Bridge to Nix's Club House. (See hydrographic sheet No. 1). That part of the channel shown on sheet No. 2 has a least depth of 14 feet (Position 130 - 131 A, Vol. 1, Page 37 and positions 48-49 B, Vol. 1, Page 54). A 13 foot depth exists at the south edge of the channel (Positions 67-68 A, Vol. 1, Page 20). However, the controlling depth of the entire channel is considerably less than this because a 9-1/2 foot depth appears on sheet No. 1. There is very little traffic on the Nansemond River. Occasionally a tug tows some barges to and from the cement plant at C Plant on sheet No. 1; some schooners bring lumber and other products from Suffolk; and small tankers carry gasoline to oil stations in Suffolk. There are also small fishing and pleasure craft. The average draft of the larger vessels is probably eight feet.

Bennett's Creek has its controlling depth on the bar near red nun buoy No. 2, latitude 36°-53'.0, longitude 76°-29'.45. On the channel line, a least depth of 14 feet was found. This channel is marked by buoys and a row of stakes with white wooden crosspieces or pointers. On entering, the row of markers is first kept on the port hand; the line then makes a jog and is left on the starboard hand for the rest of the run. The jog occurs at latitude 36°-52'.8, longitude 76°-29'.1. Only a few fishing and pleasure

craft use this channel. The maximum draft is about 3 or 3-1/2 feet. These boats can cross the bar at high tide.

In Chuckatuck Creek the channel lies near the points of land on the south-east shore. Fairly deep water exists near the drawbridge but the entrance is fairly shoal. The survey was not extended eastward and northward far enough to determine the controlling depth. On position 110 C, Vol. 2, Page 49, a depth of ^{6 1/2}5-1/2 feet was found _{at the mouth of the creek}, but it is likely that the controlling depth is less than this. Chart No. 529 shows about 2 feet. A considerable number of small fishing and oyster craft run in and out of Chuckatuck Creek. Most of the docks and small piers belong to sea-food buyers. Very few boats were seen west of Moore's Point. The mean draft of the boats frequenting Chuckatuck Creek is about 3 feet.

There are marine railways at Crittenden, capable of hauling out craft up to 50 tons and 110 feet in length.

COMPARISON WITH PREVIOUS SURVEYS:

So far as the Chief of party knows, there is no previous survey of Chuckatuck Creek. On chart No. 529, the shoreline is shown as a broken line and no soundings are shown. The area showing part of the Nansemond River is in agreement with the chart and the survey of the U. S. Engineers.

See Rev. for
previous surveys

J. P. Ross

STATISTICS

<u>Vol. No.</u>	<u>Statute Miles of Soundings.</u>	<u>Number of Positions</u>	<u>Number of Soundings</u>
1	29.5	249	1756
2	20.5	232	1401
3	10.2	102	740
Total	60.2	583	3897

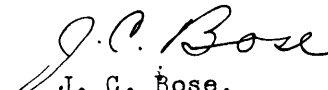
APPROVAL OF RECORDS

The record books and smooth sheets have been examined and are approved.

The field work pertaining to the hydrography was done under direct supervision of the Chief of Party. It was therefore possible to solve all questions arising from any errors in recording, etc., from first-hand knowledge of the area surveyed.

Immediately after completion of the field work, the Chief of Party was assigned to the ship OCEANOGRAPHER and his duties in connection with the field and office work of that vessel prevented him from exercising close supervision of the plotting of this sheet.

Several random positions were replotted and checked. The soundings on the sheet were examined with regard to crossings but were not compared with all pages in the record books.


J. C. Bose,
Chief of Party.

TIDE NOTE FOR HYDROGRAPHIC SHEET

April 10, 1936

Division of Hydrography and Topography:

✓ Division of Charts: **Attention: Mr. E. P. Ellis**

Tide Reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 5968

Locality **Mouth of Nansemond River and Chuckatuck Creek, Va.**

Chief of Party: **J. C. Bose in 1934**
Plane of reference is **mean low water reading**
1.8 ft. on tide staff at **Nix's Club**
6.2 ft. below B.M. 1
1.7 ft. on tide staff at **Pig Point**
12.8 ft. below B. M. 1
1.6 ft. on tide staff at **Dixon**
5.4 ft. below B. M. 1

Height of mean high water above plane of reference is **3.0 feet**
at **Nix's Club**; **2.8 feet** at **Pig Point** and **Dixon**.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

Remarks

Decisions

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7	<i>recommend omit</i>	
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GEOGRAPHIC NAMES

Survey No. H5968

Name on Survey	529					F	G	H	K	
	A	B	C	D	E					
	On Chart No.	On previous survey No.	On U. S. Quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
<u>Eclipse</u> ✓			*							1
<u>Crittenden</u> ✓			*							2
<u>Chuckatuck Creek</u> ✓	*		✓							3
<u>Brewers Creek</u> ✓			*							4
<u>Barrel Pt.</u> ✓	*		✓							5
<u>Cedar Pt.</u> ✓	*		✓							6
<u>Whirlhole Creek</u> ?										7
<u>Nansemond River</u> ✓	*		✓							8
<u>Bennett Creek</u> ✓	*		✓							9
										10
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										27

Names underlined in red approved
 by CRH on 4/18/36

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H5968**

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	.583.
Number of positions checked	92
Number of positions revised	1
Number of soundings recorded	3897
Number of soundings revised	0
Number of signals erroneously plotted or transferred	0

Date: Apr. 17, 1936

Verification by *G. H. Everett*

Time: 30 hrs

Review by *Harold W. Murray*

Time: 6 "

Ver. Cor. by "

13 "

HYDROGRAPHIC SURVEY NO. H5968

Smooth Sheet yes

Boat Sheet yes

Sounding Records 3 Vols. _____

Descriptive Report yes

Title Sheet yes

List of Signals Vol 1

Landmarks for Charts (Form 567) none

Statistics yes

Approved by Chief of Party yes

Recoverable Station Cards (Form 524) none

Special Chart for Lighthouse Service no
(Circular Nov. 30, 1933)

Remarks _____

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY }
 DESCRIPTIVE REPORT } No. H5968
 PHOTO STAT / OF } ~~NO~~

{ received March 20, 1936
 { registered April 4, 1936
 { verified
 { reviewed
 { approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	
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C. K. Brown April 6 - '36

VERIFYERS REPORT ON H-5968

GENERAL INSTRUCTIONS.

The records omitted references to beacons, piling and distances to shore line ~~accepted~~. ✓
The turning of lines were not always mentioned or change of course. ~~accepted~~. ✓

FIELD DRAFTING. The field drafting was very well done. The marsh line and l. w. line was transferred to the sheet in pencil and inked in the office. The ~~limit of the marsh line was inked as a dash line~~ ✓

JUNCTIONS - CURVES. The junction with adjoining sheet is good. The usual curves may be completed. ✓

REMARKS

All hydrographic information, such as piling, docks, buoys, ^{etc.} are from the topo sheets 6422 a, b except the mooring piles in Chuckatuck creek which were located by sextant fixes. ✓

Topography for this sheet was done by the Plane table see Sheets T-6422 a, b (1934) ✓

The topographic sheet shows only the center line of bridge across the Nansemond river. ✓

Certain symbols for piling and fish stakes were changed to conform to the usual symbols for these objects. ✓

The notes "oyster beds" are from the topographic sheets. These were not mentioned in the records. ✓

Signal Bridge Lat. 36-51.7; Long 76-28.7 is shown as a topo signal on the hydro sheet but not shown on the topo sheet. The location of the bridge however is shown. Position probably spotted in the field, changed to Hydro sig. in office. ✓
Records at Pos. 21C state that it is the mid-panel of bridge. ✓

not all the soundings taken at mooring piles in Chuchatuck
Creek were plotted. However as these soundings were 7 to 9 feet
in depth the 6 foot curve was drawn on the shore side
of these filings.

a group of stakes Lat. 36-55.2; Long. 76-29.0 which
come outside of the limit of hydrography were not plotted.
These are shown on the topo sheet.

Penciled notes shown on hydro sheet such as
"marsh grass" are not shown on the topo sheets and
therefore have not been inked.

Submitted Apr. 17, 1936

Geo. H. Everett

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5968 (1934) FIELD NO. 2

Mouth of Nansemond River and Chuckatuck Creek, Virginia
Surveyed in 1934

Instructions dated January 23, 1934 (OCEANOGRAPHER)

Hand Lead and Pole Soundings.

3 Point fixes on shore signals.

Chief of Party - J. C. Bose.
Surveyed by - J. C. Bose.
Protracted by - R. H. Carstens.
Soundings plotted by - R. H. Carstens.
Verified and inked by - G. H. Everett.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except as follows:

- a. The topography on the smooth sheet was submitted by the field party in pencil. This was inked in the office.
- b. No duplicate of the chart forwarded to the Lighthouse Bureau for use in locating Aids to Navigation was received by this office.

The Descriptive Report is clear and comprehensive and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project.

3. Shoreline and Signals.

The shoreline and signals are from plane table surveys: T-6422a (1934) and T-6422b (1934).

4. Sounding Line Crossings.

Agreement of sounding line crossings is satisfactory.

5. Depth Curves.

Within the limits of the survey, the usual depth curves may be satisfactorily drawn.

6. Junctions with Surveys.

- a. The junction with H-5969 (1934) at the southern portion of Nansemond River is satisfactory.

- b. There are no contemporary surveys to the northeastward of the present survey at the mouth of Nansemond River and Chuckatuck Creek, however, satisfactory junctions are made with the charted hydrography in these areas.

7. Comparison with Prior Surveys.

a. H-529 (1854-55).

This is a reconnaissance survey on a scale of 1:20,000 and covers Nansemond River and the mouth of Chuckatuck Creek. It contains no information not adequately covered by the present survey.

b. H-1179a (1871-72).

A few soundings from this 1:20,000 scale survey fall within the limits of the present survey at the mouth of Chuckatuck Creek. These are generally in good agreement.

c. H-1213 (1874).

This 1:10,000 scale survey covers the present survey in Nansemond River. Depths are generally in good agreement although a few areas on the present survey in the main channel vary 1 to 9 feet shoaler.

The 8 foot sounding (not charted) originating with this survey in lat. $36^{\circ}53.1'$, long. $76^{\circ}29.6'$, falls in depths of 12 to 14 feet on the present survey. The sounding is a single sounding obtained on line and is probably a leadsmen's error of 1 fathom since the closer development on the present survey shows a very uniform bottom and no indications of a possible detached shoal. The 8 should be disregarded in future charting.

d. H-3039 (1909).

A portion of this 1:10,000 scale survey covers the main channel of Nansemond River on the present survey. Depths are generally in good agreement. A few spots on the present survey, however, vary 1 to 5 feet deeper in some cases and 1 to 3 feet shoaler in others.

8. Comparison with Chart 529 (New Print dated August 12, 1935).

a. Hydrography.

Soundings shown on the chart originate with surveys discussed in preceding paragraphs of this review and a U. S. Engineers'

survey of 1927 (blueprints 22877 and 22878), which covers the main channel in Nansemond River. These soundings are generally in good agreement with the present survey. Within the area covered, the later development on the present survey should supersede the Engineers' survey for charting purposes.

b. Controlling Depths in Channels.

The charted controlling depth in Nansemond River is 12 feet as of Feb. 1932 and this is generally borne out by the present survey. However, Chart Letter 119 (1936) which is subsequent to the present survey states that the controlling depth is 9-1/2 feet as of Feb. 1936.

c. Aids to Navigation.

Aids located on the present survey are in substantially the same positions as charted except the following:

- (1) Buoy S"6" (lat. 36°53.6', long. 76°28.2') was located approximately 90 m. ENE of its charted position. The source of the charted position was not ascertained but it has been charted in this position since the 1st edition of the chart in 1912.
- (2) Buoys S"6" (lat. 36°52.8', long. 76°29.0') and S"6A" (lat. 36°53.2', long. 76°29.9') were located approximately 90 m. SE and E respectively from their charted positions. The charted positions originate with Lighthouse Notice to Mariners 23 (1930) and 30 (1928) respectively and are based on the intersections of two or more bearings.
- (3) The beacon in lat. 36°55.4', long. 76°29.7', was located approximately 80 m. NE of its charted position. The charted position originates with Lighthouse Notice to Mariners 48 (1925) and is based on the intersection of two bearings.

The aids as located on the present survey satisfactorily mark the features intended.

9. Field Plotting.

Field protracting and plotting were exceptionally well done and conform to the requirements of the Hydrographic Manual.

10. Additional Field Work Recommended.

This is a well executed survey and no additional field work is required.

11. Superseding Previous Surveys.

Within the area covered, the present survey supersedes the following surveys for charting purposes:

H-529	(1854-55)	in part
H-1179a	(1871-72)	" "
H-1213	(1874)	" "
H-3039	(1909)	" "

12. Reviewed by - Harold W. Murray, July 15, 1936.

Inspected by - R. J. Christman, July 30, 1936.

Examined and approved:

C. K. Green, *C. K. Green*
Chief, Section of Field Records.

L. O. Lobbert
Chief, Division of Charts.

Fred. L. Peacock
Chief, Section of Field Work.

G. H. de
Chief, Division of H. & T.

Applied to drawing ckt 529 7/15/37 RBC