

5911

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

DEC 6 1935

Acc. No. _____

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

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 20
Hydrographic }

State North Carolina

LOCALITY

NEUSE RIVER

Creek
Pierce, ~~Whittaker, Smith, Kershaw,~~
to
Greens, Tar Kiln and Dawson Creeks.

193 5

CHIEF OF PARTY

John A. Bond

5911

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

U. S. COAST & GEODETIC SURV
LIBRARY AND ARCHIVES

DEC 6 1935

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. 20 **5911**

REGISTER NO.

State North Carolina¹³

General locality Neuse River, N. C.¹⁰

Locality Pierce, Whittaker, Smith, Kerschaw, Greens, Tar Kiln and Dawson Cree¹⁷
~~Whittaker, Smith, Kerschaw, Greens, Tar Kiln and Dawson Cree~~

Scale 1:10,000 Date of survey August - Dec., 19 35

Vessel MIKAWA

Chief of Party John A. Bond

Surveyed by F. R. Gossett

Protracted by D. M. Watt

Soundings penciled by T. A. Rydingsvard

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by _____

Inked by Harold W. Murray

Verified by H.W.M.

Instructions dated _____ August 31, 19 34

Remarks: _____

DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet No. 20

NEUSE RIVER, NORTH CAROLINA

Pierce, Whittaker, Smith, Kershaw, Greens, Tar Kiln and Dawson Creeks.

DATE OF INSTRUCTIONS - August 31, 1934

Project HT-197

LIMITS

The sheet, surveyed on the scale 1:10,000, covers the creeks listed in the above title together with a narrow strip of inshore area of the Neuse River from Pierce Creek to Pierson Point. The sheet joins sheet 18 of this season's work.

SURVEY METHODS

Standard Coast Survey methods of hand lead soundings and sextant fixes were used throughout. Close to the shoreline and in the extremities of the small tributaries sextant fixes were occasionally impractical and the positions were therefor plotted on the boat sheet in reference to nearby topographic detail, appropriate notes being made in the sounding records.

All soundings on the sheet were obtained from a 24 foot skiff powered by a Johnson 9 H.P. outboard motor. The leadline was Samson mahogany tiller rope graduated in feet and fathoms, used with an 8 pound lead. The leadline held its length remarkably well and no leadline corrections were necessary throughout any of the work.

CONTROL

From the eastern limit of the sheet to the meridian 76° 44' an air-photo sheet was available. In this area topographic signals were spotted in the field on the field photographs, transferred temporarily to the celluloid sheet by Lieutenant Grenell, and projected on to the smooth sheet by means of a new-type projector.

West of the meridian 76° 44' the shoreline was surveyed and signals located by standard topographic methods on Topo Sheet EE of this season's work, which also includes the western end of Greens Creek.

SHORELINE ON SMOOTH SHEET

Within the limits covered by air-photo compilation sheet shoreline was transferred to the smooth sheet by means of a new-type projector. At the northern end of Kershaw Creek a small section of shoreline is shown on the smooth sheet in pencil, and was obtained directly from the photographs, the area not having been included on the compilation sheet. It is thought that this penciled shoreline is sufficiently accurate for any charting purposes.

* Not yet received
Mar. 16, 1936
R

DISCREPANCIES

No discrepancies are known to exist. Errors in the sounding records, principally in recording of angles and fixes, have been adjusted during the smooth plotting and noted in red in the sounding records.

DANGERS

No dangers are known to exist which would obstruct small boat navigation in the mid-stream channels of the creek.

Lat. 35° 01'
Long. 76° 41'
A row of piles extends offshore from the vicinity of signal Par, and terminates in a group of piles as shown. The piles were located by sextant fixes and plotted accurately on the smooth sheet. The smooth sheet may therefore be taken as the authority for this feature.

Lat. 35° 01'
Long. 76° 42'
Another row of piles, similarly located, extends offshore from a point between signals Age and Bug. A small row of fender piles parallel this line of piles at its outer end. The smooth sheet may be taken as the authority.

Duck blinds and temporary stakes are noted on the sheet with appropriate legends.

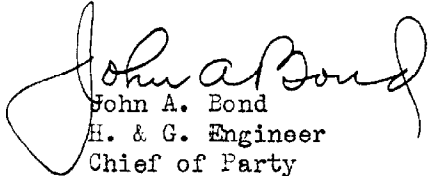
LANDMARKS FOR CHARTS

"Landmarks for Charts" will be made the subject of a separate report to be submitted for the entire project.

Submitted by

F. R. Gossett
Jr. H. & G. Engineer

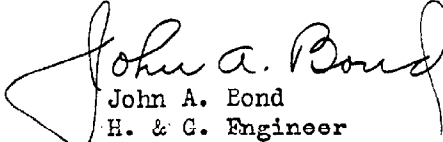
Approved by


John A. Bond
H. & G. Engineer
Chief of Party

STATISTICS FOR HYDRO SHEET 20

Date	Day	Letter	Volume	Miles (Statute)	Soundings	Positions
Aug. 19		a	1	16.3	584	154
Sept. 17		b	1 & 2	23.0	913	235
	20	c	2	24.0	994	195
	23	d	2 & 3	18.0	811	157
	30	e	3	19.4	919	196
Oct. 2		f	4	27.8	1123	194
	7	g	4 & 5	15.9	657	166
Dec. 2		h	5	-- -	---	6
				144.4	6001	1303

Smooth Sheet No. 20 was plotted under the immediate supervision of the Chief of Party. The sheet and accompanying records have been inspected and are approved.


John A. Bond
H. & G. Engineer
Chief of Party

HYDROGRAPHIC SURVEY NO. 5911

Smooth Sheet yes

Boat Sheet 1

Sounding Records 5 Vols. _____

Descriptive Report yes

Title Sheet yes

List of Signals Vol 1

Landmarks for Charts (Form 567) yes

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 _____

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5911

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

Number of positions on sheet	1303
Number of positions checked	33
Number of positions revised	6
Number of soundings recorded	6001
Number of soundings revised	17
Number of signals erroneously plotted or transferred	✓

Date: March 6, 1936

Verification by Harold W. Murray

Time: 2½ days

Review by S. Pisgani

Time: 3¼ "

Remarks

Decisions

	Remarks	Decisions
1		
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GEOGRAPHIC NAMES

Survey No. 591111

Name on Survey	Source											
	A	B	C	D	E	F	G	H	K			
<u>Dawson Creek</u> ✓												1
<u>Tar Kiln Creek</u> ✓												2
<u>Neuse River</u> ✓												3
<u>Greens Creek</u> ✓												4
<u>Kershaw Creek</u> ✓												5
<u>Smith Creek</u> ✓												6
<u>Whittaker Creek</u> ✓												7
<u>Pierce Creek</u> ✓												8
<u>PIERSON PT.</u> ✓												9
												10
												11
												12
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												27

G.N. decision omit "S" - name standard Ch. 538

Whittaker

Names approved Dec 11 1935

[Signature]

29c

TIDE NOTE FOR HYDROGRAPHIC SHEET

February 14, 1936.

Division of Hydrography and Topography:

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

Tide Reducers are approved in
5 volumes of sounding records for

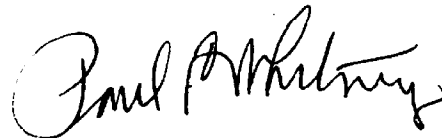
HYDROGRAPHIC SHEET 5911

Locality Pierce Creek to Dawson Creek, Neuse R., N. C.

Chief of Party: John A. Bond in 1935
Plane of reference is mean low water reading
2.5 ft. on tide staff at Oriental
5.6 ft. below B.M. 1 (1935)

There is practically no periodic tide and the plane of reference
was taken half a foot below mean water level.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

Verification Report on H-5911 (1935)

1. Conditions of Records.

The records are neat, legible and conform to the requirements of the hydrographic manual except as follows:

a. No special chart for use of the light-brown Bureau was submitted.

b. Descriptive notes in the sounding records ~~were not~~ such as piles, duck blinds, logs and wrecks were not consistently plotted on the boat sheet and smooth sheet. Those omitted on the smooth sheet were added in the office.

c. Bottom characteristics were frequently plotted without regard to the recorded sounding.

d. Important items such as wrecks and booms were not referenced on the 1st page or index of the records.

2. Shore line & signals

a. Topographic sheets covering this area have not as yet been received in this office.

b. The D.R. (page 1) states that the signals east of long. 76° 44' were spotted from air photos. While such signals are generally shown in green ~~at~~ (red in this case) it ~~was~~ ^{is} ~~advisable~~ ^{advisable} to add the customary green note.

c. The boat sheet shows several signals in blue (Sug, Was, Owl, Mis, Flu, Dux, Com, Wa + Po). These appear to be revision plotting in the field since they are not bracketed by three point fixes.

* The positions of these signals as shown on the smooth sheet are considered ^{to be} the final field determinations and have been ^{accepted}.

d. The objects on which signals *It* and *Ed* are located near lat. $35^{\circ}01'.3$, long. $76^{\circ}41'.9$ could not be ascertained from the sounding records.

3. Sounding Line Crossings

Such cross lines as result from the reach or more runs in the rivers & creeks are in excellent agreement with the main system of lines.

4. Depth Curves.

a. The usual depth curves may be satisfactorily drawn within the limits of the survey including several portions of the low water curve.

b. Half foot soundings were freely used in ~~the~~ ^{the} ~~surveying~~ ^{surveying} out depth curves, in maintaining controlling depths in channels and narrow streams, and in broad flat areas.

5. Junctions:

No contemporary surveys adjoining this sheet are registered.

6. Field plotting.

Field sketching and plotting are excellent.

Verified & inked by

Harold W. Murray Mar. 6, 1936

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5911 (1935) FIELD NO. 20

Pierce Creek to Dawson Creek, Neuse River, North Carolina
Surveyed in Aug. - Dec. 1935

Instructions dated August 31, 1934 (MIKAWA)

Hand Lead Soundings.

3 Point Fixes on shore signals.

Chief of Party - J. A. Bond.
Surveyed by - F. R. Gossett.
Protracted by - D. M. Watt.
Soundings penciled by - T. A. Rydingsvard.
Verified and inked by - H. W. Murray.

1. Condition of Records.

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

- (a) Several descriptive notes and symbols pertaining to piles, logs, wrecks, etc., were not shown on the smooth sheet. These have been added in the office.
- (b) Important data such as wrecks and buoys were not entered on the index pages of the records.
- (c) A number of bottom characteristics were incorrectly placed on the sheet.
- (d) All signals originating with the topographic sheet and air photos have been shown in red on the smooth sheet. It is usually customary to distinguish by a different color, signals originating from different sources. In this case green would have been desirable.

The Descriptive Report is complete and satisfactorily covers all matters of importance.

2. Compliance with Instructions for the Project.

The instructions for the project have been satisfactorily complied with.

3. Shoreline and Signals.

The shoreline and signals originate with Air Photo Compilation Survey T-5565 (1935) and Field topographic sheet "EE". The latter has not yet been received in the office.

4. Sounding Line Crossings.

No cross lines were run but the adjacent lines show good agreement.

5. Depth Curves.

The usual depth curves can be completely drawn including portions of the low water curve.

6. Junctions with Contemporary Surveys.

The junctions with the adjoining surveys will be considered when received in the office.

7. Comparison with Prior Surveys.

a. H-963 (1868), H-974 (1868).

These surveys are on a scale of 1:20,000 and together they cover the area of the present survey with the latter survey covering the portion from and including Whitaker Creek to the eastern limit of the sheet. The sounding lines on the old surveys are much more widely spaced than those of the present and in the creeks, only a single zig-zag line of soundings was run. With the exception of a few places, generally in the creeks, the agreement in the depths with the present ones is good and where discrepancies exist the present depths are shoaler from 1/2 to 1 foot.

The 6-1/2 foot sounding in approximate latitude 34°59.4' longitude 70°44.8', (charted as 6) originating with H-963 (1868) falls on the present survey well outside the 6 foot curve but close to a 7 foot sounding. There is indication that the area in the vicinity has deepened slightly and hence the 6 should not be used in future charting.

The 1 foot sounding (uncharted) in latitude 35°01.4', longitude 76°42.2' (Greens Creek) originates with H-963 (1868) and falls on the present survey in the channel in general depths of 7 feet. In the old records, pos. 3f (red) opposite the sounding, a statement is made that the "Boat ran on bed of stones". There is no indication of a shoaling on the present survey nor on H-4146 (1920) which ran a line close by the spot. It was last charted on the 1878 edition of chart 144 ². It appears likely that the stones have been removed and should not be considered in future charting.

The present survey has very satisfactorily covered the common areas and since it is on a larger scale and more closely developed than the old surveys, it should supersede the old work for charting purposes.

b. H-3535 (1913).

This survey is on a scale of 1:10,000 and 1:20,000 and covers Oriental Harbor and Entrance. In general the hydrography on the present survey shows that a general

shoaling from 1 to 3 feet in the channel areas has taken place, while in the more open areas the change in the depths shows only a slight shoaling from 1/2 to 1 foot. The shoreline shows several changes. The most important change appears to be the submergence of the bulkhead in the harbor entrance, which the present survey shows covered with an average depth of about 2 feet of water, and the recession of about 65 meters of the south shore of Greens Creek in latitude 35°01.35', longitude 76°41.25'.

- (1) The islet in latitude 35°01.2', longitude 76°42.1' (uncharted) originating with T-1052a (1913) falls in depths from 1 to 1-1/2 feet on the present survey. Since this area has deepened as shown by the surrounding depths on both surveys, the islet is considered non-existent and should not be charted.
- (2) The sand spit making out from the south shore at the entrance to Greens Creek is not shown on the present survey. Comparison of the depths with the present survey shows the spit has been leveled off and is now covered with 1 foot of water.

c. H-4146 (1920).

- (1) This survey is on a scale of 1:5000 and covers Oriental Harbor and Entrance, and Greens Creek. A general shoaling appears to have taken place since the old survey, particularly in the channel areas as well as in Greens Creek. The main channel from Neuse River has shoaled approximately 1 foot in most places; the channel in the cove in latitude 35°01.4', longitude 76°41.9', as much as 2 feet; and in Greens Creek from 1/2 to 1 foot.
- (2) The most outstanding change in the shoreline that has taken place is the recession of approximately 150 meters of the neck of land on the east side of the channel.
- (3) The 5 foot shoal in latitude 35°01.45', longitude 76°42.15', falls in the channel area in depths of 7 feet on the present survey. This is corroborated by the Engineers' Survey, blue print 20956 (1926) which closely developed the area. The area has evidently deepened and the shoal should not be used in future charting.

d. H-4150 (1920).

This survey is on a scale of 1:20,000 and covers a portion of Whitaker Creek and Neuse River with widely spaced lines of soundings. The agreement of the depths on the old survey with those of the present are generally good. Since the present survey is more closely developed and is on a larger scale, it should supersede the old work for charting purposes.

8. Comparison with Chart No. 538 (New Print dated Feb. 15, 1936).a. Hydrography.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and the U. S. Engineers' survey of 1926, blue print 20956. The Engineers' survey covers Oriental Harbor and entrance, and part of Smith Creek, and shows the area more closely developed than the present survey. However, the two are not in close agreement, indicating that some changes have occurred. For this reason, blue print 20956 (1926) should be superseded by the present survey.

The wreck charted in latitude 35°01.6', longitude 76°42.1' originates with the Engineers' survey of 1926 (blue print 20956), and is shown as a sunken raft with 5-1/2 and 6 feet of water over it, and falls on the present survey in depths of 6 to 6-1/2 feet. Although no investigation was made by the present field party, it is believed that, on account of the time elapsed since its first charting, the wreck no longer exists and should be omitted in future charting.

b. Aids to Navigation.

The charted aids to navigation are in substantial agreement with the positions as located on the present survey, except Buoy "S3", which was located approximately 70 meters north of its charted position on the edge of the channel. However, the present position of the buoy marks the channel satisfactorily.

9. Field Plotting.

The protracting and plotting are well done.

10. Additional Field Work Recommended.

No additional work is required.

11. Note to Compiler.

The latest Engineers' survey, blue print 29352 (1935) has not yet been applied to the charts. The depths on the Engineers' survey are in general good agreement with those on the present survey. Since the work is contemporary the two surveys should be used to supplement each other.

12. Superseding Old Surveys.

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

H-963	(1868)	in part
H-974	(1868)	" "
H-3535	(1913)	" "
H-4146	(1920)	" "
H-4150	(1920)	" "

12. Reviewed by - G. Risegari, Mar. 16, 1936.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

L. O. Pollett.
Chief, Division of Charts.

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

W. H. Hude
Chief, Division of H. & T.

20 - Apr. 30 - 35

Ed

Applied to Chest 833 Sept 21, 1934 H.M.C.^o
Applied to Chest Comp 538 Aug. 2, 1937 H.MacEwen