

5950

U. S. COAST & GEODETIC SURVEY
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DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 13
Hydrographic }

State North Carolina

LOCALITY

Pamlico River

Core Point to Hill's Point

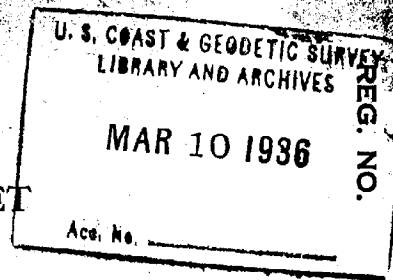
1935

CHIEF OF PARTY

John A. Bond

5950

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY



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. 13

5950

REGISTER NO. **H5950**

State North Carolina

General locality Pamlico River

Locality Core Point to Hill's Point

Scale 1:10,000 Date of survey June-July-August, 19 35

Vessel MIKAWA

Chief of Party John A. Bond

Surveyed by F. R. Gossett

Protracted by John C. Bull

Soundings penciled by John C. Bull

Soundings in ~~fathoms~~ feet

Plane of reference MLW

Subdivision of wire dragged areas by

Inked by Chas. R. Bush, Jr.

Verified by C. R. B.

Instructions dated August 31, 19 34

Remarks:

DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet No. 13

PAMLICO RIVER - Core Point to Hill's Point

Date of Instructions - August 31, 1934

Project HT-197

LIMITS

The sheet covers the main body of Pamlico River from a point about 1 mile west of Core Point to Hill's Point and includes Duck Creek, Upper Goose Creek, Broad Creek, Nevil Creek and the entrance to Blount Creek. It is joined on the east by sheet 11, on the west by sheet 14, and on the south at the entrance to Blount Creek by sheet 12. All adjoining sheets were surveyed this season by the party of the MIKAWA.

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.

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.

The inshore area was surveyed with a 24 foot skiff equipped with sounding chair and plotting table, and powered with a Johnson 9 H.P. outboard motor. The main body of the river was surveyed with the 40 foot hired launch LONA. Close inshore on both sides of the river scattered grass at times made it necessary to pole the sounding skiff.

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 colored pencil in the sounding records.

DANGERS

Shoal areas of from 3 to 6 feet formed by dumping of dredged material are found to the eastward and to the northwestward of Middle Ground Light (station WATER, 1933). There are no other dangers other than general shoal areas extending off the points which are well defined by depth curves.

CHANNELS

Twelve feet can be carried through the U. S. Engineer's dredged channel from buoy N6 westward. Eastward from Maul's Point Beacon the limiting depth in the open areas of the river is 11 feet. Seven feet can be carried into the entrances to Upper Goose and Broad Creeks, 2 feet into Duck Creek and 7 feet into the mouth of Blount Creek.

COMPARISON WITH PREVIOUS SURVEYS

In comparison with soundings shown on chart 537 general river depths appear to have remained unchanged except in the area southwest of Duck Creek where the present survey indicates a shoaling over the entire area of about 1 foot. Some deepening has occurred immediately south of Maul's Point Beacon. Dredge dumps developed on the present survey are not shown on the chart.

SHORELINE ON SMOOTH SHEET

All shoreline and topographic signals shown on the smooth sheet were carefully transferred from aluminum sheets surveyed this season by standard topographic methods.

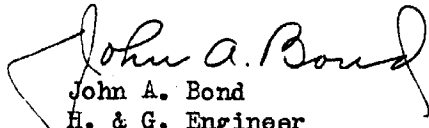
LANDMARKS FOR CHARTS

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

Submitted by,

F. R. Gossett
Lieut.(j.g.)

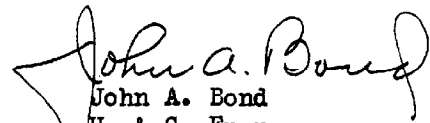
Approved by:


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

LIST OF STATISTICS - SHEET 13

Date	Day Letter	Volume	Statute Miles	Soundings	Positions
June 6	a	1	28.0	863	145
7	b	1 & 2	44.5	1311	221
11	c	2	29.7	892	151
12	d	3	31.5	925	166
14	e	3 & 4	28.9	865	161
15	f	4	15.9	460	96
17	g	4 & 5	27.0	838	173
21	h	5	8.0	343	105
24	j	5	12.2	603	131
26	k	5 & 6	6.6	310	63
27	l	6	13.5	494	103
28	m	6	10.5	447	121
July 1	n	6 & 7	7.7	220	75
Aug. 9	p	7	20.9	927	223
			284.9	9498	1934

Smooth Sheet No. 13 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. Engr.
Chief of Party

lac
✓

TIDE NOTE FOR HYDROGRAPHIC SHEET

March 27, 1936.

Division of Hydrography and Topography:

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

Tide Reducers are approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 5950

Locality **Core Point to Hills Point, Pamlico River, N. C.**

Chief of Party: **John A. Bond in 1935**

Plane of reference is **mean low water reading**

3.0 ft. on tide staff at **Bath**

4.8 ft. below B.M. 1

1.7 ft. on tide staff at **Washington, N.C.**

4.2 ft. below B.M. 1

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.

Field Records Section (Charts).

HYDROGRAPHIC SHEET NO. **H5950**

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

Number of positions on sheet	<i>.1934.</i>
Number of positions checked	<i>...30.</i>
Number of positions revised	<i>.....3.</i>
Number of soundings recorded	<i>..9498</i>
Number of soundings revised	<i>..101.</i>
Number of signals erroneously plotted or transferred	<i>.....</i>

Date:

April 29 1936

Verification by

Inting Chas R Bush J

Review by

Harold W. Murray

Ver. Cor. by

"

Time: *3 days 2 hrs*

Time: *2 " —*

1 " —

HYDROGRAPHIC SURVEY NO. 5950

Smooth Sheet Yes

Boat Sheet 1

Sounding Records Yes Vols. 7

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) No

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

Remarks _____

Remarks

Decisions

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GEOGRAPHIC NAMES

Survey No. 5950

Name on Survey	On Chart No. 537		On previous survey No. 7		On U. S. Quadrangle Maps	From local information	USGS Index On-line Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
	A	B	C	D							
<u>Broad Creek</u> ✓	*	✓									1
<u>Pamlico River</u> ✓	*	✓				✓	tt	✓			2
<u>Upper Goose Creek</u> ✓	*	✓									3
<u>Duck Creek</u> ✓	*	✓									4
<u>Nevil Creek</u> ✓	*	✓									5
<u>Mauls Pt.</u> ✓	*	✓									6
<u>Blount Bay</u> ✓	*	✓									7
<u>Hills Pt.</u> ✓	*	✓									8
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Names underlined in red approved
 by *[Signature]* on 4/21/36

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT } No. H 5950
~~PHOTOSTAT OF~~ } No. T

{ received March 10, 1936
 { registered March 16, 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
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24		
<i>V</i> 25	<i>SD</i>	<i>Dangers & channels - D.H.</i>
26		
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90		

RETURN TO

82	
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G. K. Green March 19, 1936

April 18, 1936.

Verifiers Report on H-5950.

The records conform to the requirements of the General Instructions. ^{not in} They were complete and sufficient notes were made to permit plotting of any ^{review} hydrographic feature except the accurate location of the fish traps.

The usual depth curves could be completely drawn. ✓

The field plotting was complete and accurate. ✓

The verifier had to draw some minor topographic features omitted by the field party and in several places the soundings were erroneously plotted. ✓

The junction on the East with H-5941 was very good, other junctions not being available. At Lat. 35°-26'.45, Long. 76°-52', a 14ft. sounding from H-5941 falls close to 12½ft. sounding on this sheet. The 14ft. sounding appears to be too deep and it is recommended that it be deleted from H-5941. ^{sdg omitted-accepted of course} ^{H. W. M.}

On Page 33 of Vol. 6 Pos. 3m, two soundings have been corrected to 7½ft. instead of 1½ft. by the field party. There is no doubt in the mind of the verifier that this correction is logical and should be accepted. ^{Field Correction accepted.} ^{H. W. M.}

The sounding, 1 past pos. 120g, page 68 vol. 4, which is recorded as 3fm. 4½ft., should no doubt be 2fm. 4½ft. and is plotted as such, namely 16ft. It should either be rejected entirely or corrected as plotted. ^{16' accepted agree with surrounding depths. H. W. M.} ^{if error noted by field party.}

This sheet was compared with T-6410. Other topo sheets are not yet available.

Original signed

*Comparison made by H. W. Murray
June 16, 1936*

Chas. P. Bush J.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5950 (1935) FIELD NO. 13

Core Point to Hills Point, Pamlico River, North Carolina
Surveyed in 1935
Instructions dated August 31, 1934 (NATOMA)

Hand Lead Soundings.

3 Point fixes on shore signals.

Chief of Party - John A. Bond.
Surveyed by - F. R. Gossett.
Protracted by - John C. Bull.
Soundings plotted by - John C. Bull.
Verified and inked by - C. R. Bush, Jr.

1. Condition of Records.

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

- a. The duplicate of the chart forwarded to the Lighthouse Bureau containing objects for locating Aids to Navigation was not received by this office.
- b. Numerous fish traps extending a considerable distance from the nearby shore are shown in the general vicinity of lat. $35^{\circ}26'$, long. $76^{\circ}54'$. The field party did not indicate the limits or outlines of these traps on the boat sheet nor smooth sheet and consequently office plotting has been restricted to the plotting of descriptive notes only.
- c. In the area eastward of lat. $35^{\circ}25.5'$, long. $76^{\circ}53.0'$, topographic signals and accompanying details originating with T-6410 (1935) were incorrectly transferred, the correct position being from 5 to 10 m. in a NW direction. These features were corrected on the smooth sheet. Investigation of the affected hydrography revealed no material discrepancies in position and no changes were considered advisable.

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 except that an adequate examination should have been made of the critical soundings (charted) discussed in paragraph 7b, (1) and (2) of this review. In addition, a closer development should have been made of the narrow channel in the vicinity of lat. $35^{\circ}26.2'$, long. $76^{\circ}57.9'$.

3. Shoreline and Signals.

The shoreline and signals are from plane table surveys: T-6410 (1935), T-6461 (1935), and T-6465 (1935).

4. Sounding Line Crossings.

Agreement of sounding line crossings is very good.

5. Depth Curves.

Within the limits of the survey, the usual depth curves may be completely drawn including portions of the low water curve.

6. Junction with Contemporary Surveys.

- a. The junctions on the east with H-5941 (1935) and on the southwest with H-5961 (1935) are satisfactory.
- b. The junction on the west with H-5996 (1935) will be considered in the review of that survey.

7. Comparison with Prior Surveys.a. H-1100 (1871) and H-1101 (1871).

These 1:20,000 scale surveys cover the entire area of the present survey. Depths are generally in close agreement. However, several areas on the present survey vary 1 to 2 feet shoaler in some cases and 1 foot deeper in others. A few areas on the present survey vary 3 to 4 feet deeper than those on H-1101 (1871) in some cases and 3 to 6 feet shoaler in others. These changes are artificial and are due to channel dredging, and dredge dumps respectively.

b. H-3661 (1914).

This 1:10,000 scale survey contains five detached shoal examinations which fall entirely within the limits of the present survey.

- (1) The first examination is in lat. $35^{\circ}27.3'$, long. $76^{\circ}54.3'$. Depths are in close agreement in some areas but others including the 6 foot shoal (charted), 6.6 feet in records in lat. $35^{\circ}27.3'$, long. $76^{\circ}54.4'$ appear to have deepened 1 to 3 feet. The 7 foot sounding, soft bottom (charted) originating with the 1914 survey in lat. $35^{\circ}27.1'$, long. $76^{\circ}54.3'$, falls in depths of about $13\frac{1}{2}$ feet on the present survey and between sounding lines spaced 100 m. apart. The 7 is a single sounding obtained at the beginning of a line and since surrounding depths on both surveys are in close agreement and show no indication of shoaling, the 7 is probably a leadsman's error of 1 fathom and has not been carried forward to the present survey. It should be discontinued in future charting.
- (2) The second examination is in lat. $35^{\circ}27.1'$, long. $76^{\circ}55.2'$. Depths are generally in close agreement although a few spots on the present survey vary 1 to 2 feet deeper. The

11 foot sounding (charted) originating with the 1914 survey in lat. $35^{\circ}27.4'$, long. $76^{\circ}55.2'$ falls in depths of 16 to 19 feet on the present survey and between sounding lines spaced 120 m. apart. The 11 foot sounding is supported by a 12 (not plotted) obtained on the same line about 30 m. due southward. Surrounding depths on both surveys are in excellent agreement and the 11 has been carried forward.

- (3) The third and fourth examinations are in lat. $35^{\circ}28.0'$, long. $76^{\circ}56.8'$, lat. $35^{\circ}28.8'$, long. $76^{\circ}58.3'$ respectively. The present survey indicates a general deepening of $1/2$ to 2 feet. A few spots, however, are unchanged.
- (4) The fifth examination in lat. $35^{\circ}28.0'$, long. $76^{\circ}58.1'$ is an intensive one. Depths on the present survey are in good agreement in some areas but vary 1 to 2 feet deeper in others. In the main channel a deepening of 3 to 4 feet is noted and is probably due to dredging subsequent to the 1914 survey. Several spots on the present survey vary 4 to 5 feet shoaler. These differences are probably due to dredge dumps. (See Descriptive Report, page 2).

In lat. $35^{\circ}28.3'$, long. $76^{\circ}58.2'$, the 1914 survey shows a shoal area with a least depth of 5 feet (charted). This shoal falls between sounding lines spaced 100 m. apart on the present survey and in depths of 7 to 10 feet. The shoal was not examined on the present survey and consequently there is no evidence which would indicate that changes may have taken place. Several representative soundings have, therefore, been carried forward. The present survey shows a similar shoal area about 300 m. to the SE which was not shown on the 1914 survey. While the old shoal may have shifted in position, it is more probable that the new shoal is a result of recent spoil dumping. (See Descriptive Report, page 2).

Except as noted above, the present survey should completely supersede H-3661 (1914) for charting purposes.

8. Comparison with Chart 537 (New Print dated Feb. 15, 1933).

a. Hydrography.

Within the area of the present survey, the chart is based on surveys discussed in the foregoing paragraphs and needs no further consideration in this review.

b. Controlling Depths.

The charted controlling depth in the dredged channel in Pamlico River is reported monthly by the U. S. Engineers.

The latest reported depth is 10-1/2 feet as of June 1, 1936, (Chart letter 387, 1936). This is generally borne out by the present survey.

c. Aids to Navigation.

Buoys and beacons located on the present survey agree substantially with the positions as charted and satisfactorily mark the features intended.

9. Field Plotting.

Field protracting and plotting were accurate and conform to the requirements of the Hydrographic Manual.

10. Additional Field Work Recommended.

For Future Consideration.

When field work is resumed in this locality consideration should be given to the following:

- a. An examination and definite disposition of the 11 foot sounding discussed in paragraph 7b (2) of this review.
- b. An adequate development of the narrow channel leading into Blount Creek (vicinity of lat. 35°26.2', long. 76°57.9').

11. Note to Compiler.

Attention is called to a dock in lat. 35°29.0', long. 76°58.6', which has been plotted from information contained in the sounding records and is not shown on the contemporary topographic survey.

12. Superseding Previous Surveys.

Within the area covered, the present survey with the indicated additions from previous surveys supersedes the following surveys for charting purposes:

H-1100 (1871)	in part
H-1101 (1871)	in part
H-3661 (1914)	entirely

13. Reviewed by - Harold W. Murray, June 15, 1936.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

Fred. R. Weaver
 Chief, Section of Field Work.

L. O. Robert
 Chief, Division of Charts.

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

Applied to Drawing of Chart 537, Dec. 7, 1936, H.B.