5874

Form 504
Rev. Dec. 1933

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

DESCRIPTIVE REPORT

~~Topographic~~ / Hydrographic Sheet No. 6

State North Carolina

LOCALITY

PAMLICO RIVER

Pungo River to Goose Creek
~~Goose Creek to Pungo River~~

1935

CHIEF OF PARTY

John A. Bond

U.S. GOVERNMENT PRINTING OFFICE: 1934

5874

Form 537

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. 6 5874

REGISTER NO.

State North Carolina

General locality Pamlico ~~Sound~~ River

Locality ~~Pamlico River entrance~~ Punqo River to Goose Creek

Scale 1:10,000 Date of survey February-March, 1935

Vessel MIKAWE

Chief of Party John A. Bond

Surveyed by F. R. Gossett - C. F. Chenworth - D. E. Sturmer

Protracted by D. M. Watt

Soundings pencilled by G. C. McGlasson

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by C. F. McKenney

Verified by Harold W. Murray

Instructions dated August 31, 1934

Remarks:

U. S. GOVERNMENT PRINTING OFFICE

DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet No. 6.

INTRACOASTAL WATERWAY - Pamlico River, Goose Cr. to Pungo River

DATE OF INSTRUCTIONS - August 31, 1934. Project - HT-197

SURVEY METHODS

Standard Coast Survey methods of hand lead sounding and sextant fixes were used throughout. Leadline was Samson mahogany colored, wire centered tiller rope marked to fathoms and feet, using an eight pound lead. The inshore areas were surveyed by D. E. Sturmer (Day letters in red) using a 24 foot skiff equipped with sounding chair and plotting table, and powered by a Johnson 9 H.P. outboard motor.

The survey of the open area was begun by F. R. Gossett and completed by C. F. Chenworth (Day letters in blue) using the 40 foot twin-screw hired launch LONA.

Some difficulty was experienced in running the long lines due to a large and variable distortion of the boat sheet combined with the necessity of using long extension arms on the protractor. This was particularly noticeable in the jumps which occurred when shifting fixes to opposite sides of the river and in the apparent change of some of the boat sheet positions in smooth plotting. Signals Abel, Hit, Dog, Wat, Bux, and Cat were 20 to 40 foot towers, whitewashed with slatted targets. Stations Bux, Bec and Cat were located by K. G. Crosby 1935. All other stations used were located by G. C. Mattison, 1933 and by the current triangulation and topography of this party.

DISCREPANCIES

Discrepancies in the record, principally in reading and recording of angles, were adjusted during smooth plotting and the adjustment indicated in the records in red. Signal Elm was found to be out of position on the boat sheet during smooth plotting. This shifted positions 66 to 68L. New positions of stations Bux, Bec and Cat were obtained while the work was in progress, the survey having been begun on preliminary positions of these stations. Other jumps and differences in position between smooth and boat sheets are due principally to distortion of the boat sheet combined with extension arms on the protractor as explained above. No other discrepancies are known to exist.

DANGERS

No dangers are known to exist. The shoal areas along the shores and off the points are clearly indicated by depth curves.

CHANNELS

The entire deep water area is navigable and free of obstructions. Vessels should pass south and east of the lighted buoy off Wade Point. The entrance to the dredged channel of the Intracoastal Waterway into Goose Creek is indicated by depth curves.

COMPARISON WITH PREVIOUS SURVEYS

The sheet was compared with the survey of 1870. Though the present survey is more detailed, depth curves agree in general in shape and position and there is no appreciable change in general depths except in the mouth of Goose Creek, where the channel has been changed by dredging operations. The eight foot uninvestigated sounding on sheet 1088 in Lat. 35° 22.3': Long. 76° 33.3', was investigated on the present survey on positions from 63n to 119n and 35r to 45r. Least depth of 12½ feet was obtained.

See review par. 7a(1)

LANDMARKS FOR CHARTS

Landmarks for charts will be made the subject of a report to be submitted for the entire project.

SHORELINE

The shoreline, which has been inked on the sheet, was transferred from the air-photo compilation sheets by means of a projection machine in the office of Lieutenant (j.g.) Grenell. The shoreline had previously been run and signals located by standard topographic methods on aluminum mounted sheets. Minor differences between the topographic sheets and the air-photo sheets were adjusted before the transfer was made. As inked on the smooth sheet the shoreline now agrees accurately with that shown on the air-photo sheets.

Submitted by,

C. F. Chenworth

C. F. Chenworth
Aid, U.S.C.& G.S.

Approved by,

John A. Bond

John A. Bond
H.& G. Engr. U.S.C.& G.S.
Chief of Party

Smooth sheet No. 6 - Intracoastal Waterway, Pamlico River, Goose Creek to Pungo River, N. C. - was plotted under the immediate supervision of the undersigned. The sheet and accompanying records have been inspected and are approved.

John A. Bond

John A. Bond
Lieutenant, U.S.C.& G.S.
Chief of Party

STATISTICS FOR HYDRO SHEET NO. 6

Date	Day letter	Volume	Miles(Statute)	Soundings	Positions
Feb. 8	a	1	18.2	561	93
11	b	1	23.7	845	116
12	c	1 & 2	24.2	753	116
15	d	2	16.6	528	92
18	e	2	11.0	346	59
19	f	2 & 3	28.0	837	140
20	g	3	17.1	440	74
25	h	3	16.3	504	88
26	j	4	24.3	753	129
March. 1	k	4	12.7	454	107
4	l	4 & 5	13.7	405	79
5	m	5	12.1	371	83
6	n	5	21.4	709	150
7	p	5 & 6	2.0	79	23
8	q	6	4.6	130	44
11	r	6	5.4	135	54
Feb. 12	a	7	12.0	521	87
13	b	7	5.0	225	34
15	c	7	10.8	457	82
18	d	7 & 8	9.7	456	94
19	e	8	11.3	570	158
20	f	8	8.5	550	108
25	g	8 & 9	15.9	732	137
28	h	9	6.4	331	78
May. 9	j	9	8.2	366	66
13	k	9 & 10	11.0	445	85
			350.1	12503	2376

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO 5874..

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

Number of positions on sheet	2376
Number of positions checked	41
Number of positions revised	8
Number of soundings recorded	12,503
Number of soundings revised	38
Number of signals erroneously plotted or transferred	✓

Date: Mar. 24, 1936

Verification by Harold W. Murray
Inked by C. F. McKenney
Review by R. J. Christman

Time: 16½ hrs.
52 " } 78
Time: 17½ hrs

HYDROGRAPHIC SURVEY NO. 5874

Smooth Sheet Yes

Boat Sheets 2

Sounding Records Yes Vols. 10

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

Survey No. 5874

GEOGRAPHIC NAMES

Date. Oct. 10, 1935

Chart No. 1231

Diagram No. 1231

Approved by the Division of Geographic Names, Department of Interior. *

Referred to the Division of Geographic Names, Department of Interior. R

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	Currituck Pt.	same			
	Pungo River	"			
	Wade Pt.	"			
	Adams Pt.	" (Not on H5874)			
	~~Pamlico Beach~~	"			
	Goose Creek	"			
	Tulford Pt.	"			
	The Ditch	"			
	Pamlico River	"			
	Willow Pt.	" (not on H5874			
	Abel Bay	"			
	Persimmon Pt.	" (not on H5874)			

names approved 10/22/35

KTA

(M-136)

lac

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Ed. Feb. 1935

TIDE NOTE FOR HYDROGRAPHIC SHEET

February 20, 1936.

Division of Hydrography and Topography:

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

Tide Reducers are approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET 5874

Locality Pungo River to Goose Creek, Pamlico River, N. C.

Chief of Party: John A. Bond in 1935
Plane of reference is mean low water reading
2.2 ft. on tide staff at Goose Creek
2.4 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:

Paul C. Whitney

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE

Verification Report on H-5874(1935)

1. Condition of Records.
The records are neat, legible and conform to the requirements of the Hydrographic Manual. ✓

2. Shoreline & Signals
Topographic sheets covering this area are not all registered. Graphic Control sheets: T-6345(1934) and T-6346(1935) ✓ covering the signals on the north and northeast are the only sheets available. *See addenda T-6405(1935) at entrance to Goose Cr.

3. Sounding Line Crossings.
Sounding line crossings are excellent. ✓

4. Depth Curves.
The usual depth curves may be satisfactorily drawn. Half foot soundings were freely used in smoothing out irregularities and in preserving controlling depths in small bays & streams. ✓

5. Junctions with Contemporary Surveys.
a. The junction with H-5919(1935) is satisfactory and has been considered in the verification of that sheet.
b. The junctions with H-5829(1935) and H-5876(1935) are satisfactory. ✓
c. There are no contemporary surveys to the south and southeastward of the present survey. —

6. Field Plotting.
Field protracting and plotting are satisfactory. ✓

7. This sheet was inked by Mr. McKenney. ✓

8. Verified by Harold W. Murray March 4, 1936 ✓

Addenda to Par. 2.
Comparison has been made with non-registered air photo sheets: T-5554, T-5556 and T-5557 which cover this area. No corrections were necessary save ~~addition~~ inking of low water line near Wade Point on the middle north. H.W.M. Mar. 24, 1936. ✓

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5874 (1935) FIELD NO. 6

Pungo River to Goose Creek, Pamlico River, North Carolina
Surveyed in Feb. - March, 1935
Instructions dated August 31, 1934 (MIKAWE)

Hand Lead Soundings. 3 Point fixes on shore signals.

Chief of Party - John A. Bond.
Surveyed by - F. R. Gossett, C. F. Chenworth, D. E. Sturmer.
Protracted by - D. M. Watt.
Soundings penciled by - G. C. McGlasson.
Verified and inked by - Harold W. Murray and C. F. McKenney.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual, except that the duplicate of the special chart for the Lighthouse Service (Circ. Nov. 30, 1933) has not been received.

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

2. Compliance with Instructions for the Project.

The plan and character of development are in accordance with the instructions for the project.

3. Shoreline and Signals.

The shoreline originates with air photo compilations T-5554 (1934), T-5556 (1934) and T-5557 (1934).

The signals come from graphic control surveys T-6345 (1935), T-6346 (1935) and T-6405 (1935).

4. Sounding Line Crossings.

Sounding line crossings are excellent, differences in depths being less than 1 foot.

5. Depth Curves.

Within the area covered the usual depth curves can be satisfactorily drawn.

6. Junction with Contemporary Surveys.

The junctions with H-5876 (1935) in Goose Creek, with H-5919 (1935) to the west in Pamlico River and with H-5829 (1935) in Pungo River are satisfactory.

There are no contemporary surveys to the southeast in Pamlico River. Depths at the junction with H-1088 (1870) at the overlap are in very good agreement and no trouble will be had in effecting a junction with the information now on the chart.

7. Comparison with Prior Surveys.

a. H-1088 (1870), H-1140a (1872).

These surveys on a scale of 1:20,000 are in good agreement with the present survey. A slight shoaling has taken place in the deeper part of Pamlico River and the 18 foot curve is now restricted to a comparatively small area about a mile westward of Wade Point. The channel into Goose Creek has been straightened by dredging since the above survey was made. This has changed conditions in its immediate vicinity and the old channel is closing up. Differences in details of the 12 foot curve and the 6 foot curve are due mostly to the closer development of the present survey. The most important difference is the following:

(1) The 8 foot spot (charted) in latitude 35°22.5', longitude 76°33.9', from H-1088 (1870) falls in depths of about 13 feet on the present survey which closely developed the area on either side of the 8 foot sounding but very few soundings were obtained immediately over the spot. Least depths of 12 feet were found on the present survey about 130 meters northwest of the 8. The old records show that the 8 is supported by a 10 foot sounding adjacent to it and the shoaling is of very small extent. Although there is some doubt of the present existence of the shoal, the development is not considered sufficient to disprove the 8 foot sounding and the latter has, therefore, been carried forward. It should be retained on the chart until definitely disproved.

Because of the larger scale and closer development of the present survey, H-5874 (1935) should supersede the above surveys for future charting purposes, except for the 8 foot depth mentioned above.

b. H-3663 (1914).

This survey on a scale of 1:20,000 shows an investigation of the entrance to Goose Creek and of a small area in latitude 35°23.0', longitude 76°35.8' in the Pamlico River. The channel into Goose Creek has been improved by dredging since the above survey was made. At Adams Point (latitude 35°23', longitude 76°35.8') depths outside the 6 foot curve are in fair agreement with the present survey. Inside the 6 foot curve there has been considerable shoaling. Because of these changes and because the present survey is on a larger scale and shows a close development, the above survey should be superseded by H-5874 (1935) for future charting purposes.

8. Comparison with Chart 1231 (New Print dated Dec. 16, 1935).

a. Hydrography.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and on U. S. Engineer's surveys (blue print 23014 of 1929) showing the location of the channel at the entrance to Goose Creek.

b. Controlling Depth.

The charted controlling depth for the entrance to Goose Creek on the above New Print is "12 feet May 1934" from Chart Letter 620 of 1934. Later reports continue the 12 foot depth as the controlling depth for this section of the Intracoastal Waterway. This controlling depth is not inconsistent with depths found on the present survey.

c. Aids to Navigation.

The beacons are in agreement with the locations shown on the present survey, except the lighted beacon at the entrance to Abel Bay, latitude 35°23.22', longitude 76°30.70', which was located by triangulation about 100 meters east of its charted position, which comes from a section of Chart 1231 furnished by the Lighthouse Service (Chart Letter 234 of 1915).

The differences in location of charted buoys are as follows:

(1) The spar buoy charted in latitude 35°21.62, longitude 76°37.56' was located by sextant fix about 100 meters north of its charted position.

(2) The C1 buoy charted in latitude 35°19.92, longitude 76° 36.75', was located by sextant fix about 100 meters west of the charted position.

(3) The N2 buoy charted in latitude 35°20.18', longitude 76° 36.45', was located by sextant fix about 100 meters east of the charted position.

(4) The lighted buoy "32" charted in latitude 35°22.18', longitude 76°33.28', was located by sextant fix about 100 meters southeast of the charted position.

(5) The C11 buoy charted in latitude 35°24.22', longitude 76°33.10', was located by sextant fix about 100 meters north of the charted position.

All these aids to navigation, however, adequately mark the features intended and no menace to navigation results from the differences between the charted positions and the positions given on the present survey.

9. Field Plotting.

The field protracting and plotting are satisfactory.

10. Additional Field Work Recommended.

In general this survey is complete and satisfactory. However, when opportunity affords the following examinations should be made:

a. The 8 foot spot described in par. 7a(1) of this review should be verified or definitely disproved.

b. The 16 foot sounding, hard bottom, in latitude 35°23.9' longitude 76°32.9', falling outside the 18 foot curve should be further examined.

11. Superseding Old Surveys.

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

H-1088 (1870) in part
H-1140a (1872) " "
H-3663 (1914) " "

12. Reviewed by - R. J. Christman, April 8, 1936.

Inspected by - A. L. Shalowitz.

Examined and approved:

C. K. Green

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

Chief, Division of Charts.

L. O. Colbert

Chief, Section of Field Work.

Fred. L. Peacock

Gtude

Chief, Division of H. & T.

Applied to chart No. 832, Jan. 21, 1937 R.L.J.