

5899

5899

Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. Patton, Director

State: North Carolina

DESCRIPTIVE REPORT

~~Topographic~~ } <sup>-877</sup> <sup>Sea 1227</sup>  
Hydrographic } Sheet No. 5. <sup>1728-2</sup>

LOCALITY

Intracoastal  
~~Island Waterway~~

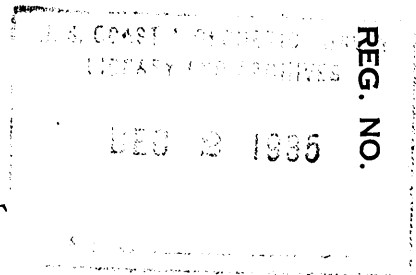
Coinjock Bay and Coinjock land cut

1935

CHIEF OF PARTY

Raymond P. Eyma.

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.

5877

Field No. 5

REGISTER NO.

disc 12 27, 1228-2 & 1229-2

State North Carolina

General locality Intracoastal Waterway

Locality Coinjock Bay and Coinjock land cut

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

Vessel launch "Little Pat" and skiff (M.V. Natoma)

Chief of Party Raymond P. Eyman

Surveyed by E.S. Averell

Protracted by A.D. Fordham

Soundings penciled by John C. Bull

Soundings in fathoms feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by - - -

Inked by George F Jordan

Verified by George F Jordan

Instructions dated Aug. 31, 1934, 19

Remarks:

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5899 (1935) FIELD NO. 5

Intracoastal Waterway, Coinjock Bay, North Carolina

Surveyed in March 1935

Instructions dated August 31, 1934 (NATOMA)

Pole and Hand Lead Soundings.

3 Point Fixes on Shore Signals.

Chief of Party - R. P. Eyman.  
Surveyed by - E. S. Averell.  
Protracted by - A. D. Fordham.  
Soundings penciled by - J. C. Bull.  
Verified and inked by - G. F. Jordan.

1. Condition of Records.

The records are legible and conform to the requirements of the Hydrographic Manual.

The Descriptive Report is clear and adequately covers all matters of importance.

2. Compliance with Instructions for the Project.

The survey adequately complies with the instructions for the project.

3. Shoreline and Signals.

Shoreline and topographic signals are from T-6365a (1935) and T-6366a (1935). Air photos of this section are in the field and have not been compiled.

4. Sounding Line Crossings.

Soundings are in satisfactory agreement at crossings.

5. Depth Curves.

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

6. Junctions with Contemporary Surveys.

The junctions on the north with H-5897 (1935) and with H-5900 (1935) on the south are satisfactory.

7. Comparison with Prior Surveys.a. H-702 (1859).

This reconnaissance survey, on a scale of 1:10,000, shows widely spaced soundings in the area north of latitude 36° 24.5', and east of longitude 75°58'. The general depths are approximately 1 foot deeper than the present soundings, however, the dredging of the channel probably affected the adjacent depths. This survey should be disregarded in future charting of the area covered by the present survey.

b. H-1360 (1877).

This survey, on a scale of 1:20,000, covers the area of the present survey as far south as latitude 36°21.5', with a rather open system of sounding lines. The channel has been deepened since the period of this survey and the depths adjacent to it have changed. In the wide flat areas the depths vary from 1 to 2 feet deeper than the present soundings. Since general changes in the depths and some change in shoreline has occurred, this survey should be superseded by the present survey, which is on a larger scale and in greater detail.

c. H-1579c (1884).

This survey, on a scale of 1:20,000, shows a single line of soundings, within the area of the present survey, through the main channel from Beacon 43 southward. This channel has been deepened and improved subsequent to this survey which is no longer of value within the area covered by the present survey and should not be used in future charting of that area.

8. Comparison with Chart 1227 (New Print dated Feb. 8, 1935).

Chart 1228 (New print dated Oct. 4, 1934).

Chart 1229 (New print dated July 29, 1935).

Chart 3252 (New Print dated Aug. 11, 1935).

a. Hydrography.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and contains no hydrography from outside sources.

b. Aids to Navigation.

The beacons in this area were located in substantially the same positions as charted, except as follows:

- (1) Lighted Beacon 45, charted in latitude  $36^{\circ}22.73'$ , longitude  $75^{\circ}56.95'$ , was located by triangulation about 200 meters south southwest of its charted position.
- (2) The day beacon, charted in latitude  $36^{\circ}24.27'$ , longitude  $75^{\circ}57.31'$ , was located by triangulation about 120 meters south of its charted position.
- (3) The day beacon, charted in latitude  $36^{\circ}24.60'$ , longitude  $75^{\circ}59.29'$ , was located by triangulation about 210 meters west of its charted position.
- (4) Lighted Beacon 47, charted in latitude  $36^{\circ}21.30'$ , longitude  $75^{\circ}56.71'$ , was located topographically about 60 meters west of its charted position.
- (5) Lighted Beacon 49, charted in latitude  $36^{\circ}19.41'$ , longitude  $75^{\circ}57.88'$ , was located topographically about 50 meters west of its charted position. The number of this beacon has been changed, subsequent to the present survey, from 49 to 1. (Lighthouse Notice to Mariners 1, 1936).

In the positions as located the beacons adequately mark the features intended.

c. Controlling Depths.

- (1) The controlling depth of 11 feet as of March 1934 in the main Inland Waterway channel is charted from Chart Letter 475/9 of 1934. The soundings of the present survey are consistent with this depth. This channel is surveyed periodically by the U. S. Engineers. Their latest surveys, blue prints 29,226 to 29,228 and blue print 29,231 of 1935, are in fairly close agreement with the present depths, except in the area between Bn. 41 (latitude  $36^{\circ}25.07'$ , longitude  $75^{\circ}57.12'$ ) and Bn. 43 (latitude  $36^{\circ}23.82'$ , longitude  $75^{\circ}57.22'$ ). This area has been dredged subsequent to the present survey and the depths are now several feet deeper.
- (2) The charts show the limits of a small channel across Coinjook Bay beginning at latitude  $36^{\circ}24.2'$ , on the western side of the main channel. This channel is charted from Lighthouse Notice to Mariner 9 of 1925, which does not give a controlling depth, however, from the present soundings the controlling depth is about 3 feet as far as the western day beacon (charted in latitude  $36^{\circ}24.6'$ , longitude  $75^{\circ}59.29'$ ). West

of this beacon it apparently shoals up. The whole area of Coinjock Bay is much the same depth, except near the spoil bank off the main channel. The charting of channel limits is somewhat misleading and in a verbal statement the Chief of Party recommends their omission from the chart.

- (3) A small canal, shown on the present survey north of Coinjock Bay, with depths of 3 to 4 feet, is of no navigational importance. It is the ditch from which material was dredged to form a road. (See Descriptive Report, page 5).
- (4) A controlling depth of 3 feet is charted in the small canal leading from the main channel at latitude 36°21.55' northeastward to Currituck Sound. (Chart letter 155 of 1924). The least depths shown on the present survey are 1-1/2 feet at the eastern end, however, the field party reports that the controlling depth is now only 1 foot, found at either end of the waterway. (See Descriptive Report, page 5). This canal is used extensively by small boats and the controlling depth on the chart should be changed to 1 foot.

9. Field Plotting.

The prescribed amount of field plotting was well done.

10. Additional Field Work Recommended.

This survey is complete and no additional work is required.

11. Superseding Old Surveys.

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


H-702 (1859) in part  
H-1360 (1877) " "  
H-1579c (1884) " "

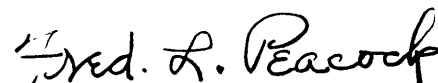
12. Reviewed by - R. L. Johnston, March 1936.


Inspected by - A. L. Shalowitz.

Examined and approved:

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

  
K. T. Adams  
Acting Chief, Division of Charts.

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

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

Hydrographic Sheet #5

Channels

The controlling depth in the main Inland Waterway channel is 11 ft. to be found near Long Pt. between Beacon #43 and the unlighted Beacon. This channel is 250 ft. wide thru the open parts of the bay and 90 ft. in the dredged cuts. *See review, par. 8c(1)*

From the unlighted Beacon at the main channel to the unlighted Beacon off Maple a depth of 3 1/2 to 4 ft. can be carried, however the whole area of Coinjock Bay is much the same depth except near the spoil banks off the main channel. *Present soundings show about 3 ft. See par 8c(2) of review*

A small canal is to be found north of Coinjock Bay with 3 to 4 ft. depth. This canal is the ditch from which material was dredged to form a road and is of no importance.

Another small canal leads from the main channel at the north end of the Coinjock land cut northeastward to Currituck Sound. This canal was formed similar to the one mentioned above and has a controlling depth of only one foot found at either end of the waterway. This canal is used extensively by small boats.

Anchorage

There are no anchorages as such on this sheet except for very small boats. Larger boats and barges often moor to the banks of the land cut south of the bridge at Coinjock. Medium sized boats can moor to the bulkheads in the vicinity of the bridge.

Previous surveys

A comparison with older surveys of 1877 and 1884 as shown on sheets #1360 and 1579c shows a general shoaling over the large unimproved areas, probably caused by the spreading of spoil from the improved channels. The channels have been deepened and improved over the old work. The two prints of the U.S. Engineers condition survey of 1934 show very much the same depths as the present survey.

No depth contours are shown as there is nothing over 6 ft. outside of the main channel.

Geographic Names

The only new name is that of Piney Island Bay which is the local name for that part of the southeastern end of Coinjock Bay lying eastward of the main channel.

Statistics

A table of statistics accompanies this report. A list of signals is attached to Vol. #1 of the records.

Tide Data

A standard automatic tide gage was maintained at Coinjock Bridge and was used to control the soundings in the land cut and the small canal to the NE. A portable automatic gage was also maintained at Maple in Coinjock Bay and was used for the rest of the work on this sheet.

Hydrographer: E.S.Averell, Surveyor.

Respectfully submitted,

*Raymond P. Eymann*  
Raymond P. Eymann, Chief of Party.

Statistics for Hydrographic Sheet #5

<u>Date</u>	<u>Day</u>	<u>Vol.</u>	<u>Boat</u>	<u>Miles</u>	<u>Soundings</u>	<u>Positions</u>
3-6-35	a	1	L.P.	25.9	730	128
3-7-35	b	1	"	37.3	1153	203
3-8-35	c	2	"	32.0	1044	172
3-9-35	d	2	"	11.6	412	71
3-11-35	e	2&3	"	23.0	741	130
3-12-35	f	3	skf.	9.8	457	95
3-13-35	g	3	L.P.	16.0	629	127
3-14-35	h	3&4	"	15.3	642	112
3-15-35	j	4	"	13.0	573	115
3-16-35	k	4	"	13.0	457	82
3-18-35	m	4	"	17.2	636	116
3-19-35	n	5	skf.	13.5	578	109
3-20-35	p	5	L.P.	7.4	409	83
3-21-35	q	5	skf.L.P.	17.2	703	142
3-23-35	r	5	L.P.	2.0	108	22
3-28-35	s	6	skf.	12.0	557	115
3-29-35	t	6	"	3.8	153	51
3-30-35	u	6	- -	- -	97	3
<b>Total</b>	<b>18</b>	<b>6</b>		<b>270.0</b>	<b>10,079</b>	<b>1876</b>



Descriptive Report to accompany  
Hydrographic Sheet #5

Instructions

The work on this sheet was done in accordance with instructions dated August 31, 1934 for Project HT-189, M.V. NATOMA.

Scale and Limits

This sheet was done on a scale of 1:10,000 and covers the area of Coinjock Bay, Cedar Bay, Cedar Island Bay, and Piney Island Bay, and the Coinjock land cut of the Inland Waterway. It joins sheet #3 on the North and sheet #6 on the South.

Survey Methods

Standard Coast Survey methods were used to determine depths and positions. The work was done from a hired launch "Little Pat" and skiff. Soundings from the launch were by hand lead line and from the skiff by the use of a graduated pole. Sounding lines in and bordering the main channel were run parallel with the channel and so spaced as to try to determine the edges and center line; no effort was made to completely develop the channel as this work is done periodically by the U.S. Engineers in their maintenance work on a much larger scale.

Other sounding lines were spaced at about 75-80 meter intervals.

All fixes were controlled by triangulation stations and other signals located by topography on aluminum mounted sheets.

Two U.S. Engineer prints showing condition surveys of 1934 are forwarded herewith. On these prints are to be found a number of monuments, many of which were found and located by the topographic party. *Bps. 29181 and 29182 (1934)*

Several expanded subplans show the depths in and around the docks and bridge at Coinjock.

Discrepancies

The greatest discrepancies found on this sheet are the changes of spacing for equal time intervals. It was noticed that the change of depth of about one foot in the shallow waters seemed to effect the speed of the launch very materially. With a decrease of a foot the launch slowed down due to bottom suction and the reverse for an increase of depth. The same is noticed with the skiff work in very shallow water where odd shoaling of only a couple of inches occurred and would not necessarily be recorded.

Dangers

To the east of the channel from Beacon #39 to Beacon #41 there is the remains of an old bulkhead retaining wall to keep the spoil from the channel. To the west of the channel from Beacon #41 to the unlighted Beacon the same condition exists. Many old broken off piles are to be found in these areas. From Beacon #43 south to the entrance of the cut very shallow water is found on both sides of the channel along with scattered stub piling.

GEOGRAPHIC NAMES

Survey No. H - 5899

Name on Survey	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On Chart No.</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On previous survey No.</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On U. S. quadrangle Maps</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">From local information</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On local Maps</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">P. O. Guide or Map</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Rand McNally Atlas</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">U. S. Light List</div> </div>										
	A	B	C	D	E	F	G	H	K		
<u>Coinjock Bay</u>	1227		-								1
<u>Bell I.</u> ✓	1227		-								2
<u>BUMPLANDING CR.</u>	1228		-								3
<u>COINJOCK.</u>	1228		-			✓	✓	✓			4
<u>CEDAR Is.</u> ✓	1227		-								5
<u>CEDAR I BAY</u> ✓	1227		-								6
<u>CEDAR BAY *</u>	1227		-								7
<u>Ink later</u>											8
<i>Names approved Dec. 12 1935</i>										9	
<i>Chapman</i>										10	
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VERIFIER'S REPORT ON H 5899 (1935)

1. Surveys H 5897 (1935) and H 5900 (1935) join this survey on the north and south, respectively, and have not been verified.
2. Control is obtained from T 6365a and T 6366a (1935). Air photos of this section are in the field and have not been compiled.
3. The field records conform to the requirements of General Instructions.
4. No additional plotting or changes were made.

Mar. 3, 1936

Respectfully submitted

  
George F. Jordan

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5899..

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

Number of positions on sheet	.1876.
Number of positions checked	....43
Number of positions revised	....1.
Number of soundings recorded	10079
Number of soundings revised	....31.
Number of signals erroneously plotted or transferred	.....0

Date: Mar. 3, 1936

Verification by George F Jordan

Time: 54 $\frac{1}{2}$

Review by *W. F. Jordan*

Time: 17  $\frac{1}{2}$

## TIDE NOTE FOR HYDROGRAPHIC SHEET

February 6, 1936.

Division of Hydrography and Topography:

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

Tide Reducers are approved in  
6 volumes of sounding records for

HYDROGRAPHIC SHEET 5899

Locality Coinjock Bay, N. C.

Chief of Party: R. P. Eymann in 1935  
Plane of reference is mean low water reading  
2.2 ft. on tide staff at Coinjock Bridge  
5.0 ft. below B.M. 1  
2.1 ft. on tide staff at Maple, Coinjock Bay  
3.5 ft. below B.M. 1

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

Condition of records satisfactory except as noted below:

*Paul Schurman*  
Acting Chief, Division of Tides and Currents.

Remarks

Decisions

	Remarks	Decisions
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Applied to drawing of chart 1228 - SBM May 1936

20 - Rev 80 - 33

Applied to chart 830, Aug 23, 1937 - R.L.J.

R.L.J.