

4676

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Hydrographic*
Field No. Office No. *4676*

LOCALITY

State *North Carolina*
General locality
Locality

194

CHIEF OF PARTY

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Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

....., Director.....

C. & G. SURVEY
L. & A
NOV 29 1927
Acc. No.

State: North Carolina

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. **4676**
~~Hydrographic~~ }

LOCALITY

North of Cape Fear

New Topsail Inlet to

Kure Beach

1926-'27

CHIEF OF PARTY

K. T. Adams

COAST AND GEODETIC SURVEY OFFICE

C. & G. SURVEY
L. & A.
NOV 25 1927
Acc. No.

S T A T I S T I C S

Hydrographic Sheet "D" - - Ship & Launch
North Carolina

Steamer Lydonia ---- K.T.Adams, Commanding.
1927.

S T A T I S T I C S S H E E T " D "

Date	Letter	Volume,	Positions,	Soundings,	Miles, Stat.	Lydonia.
September 9, 1926	A	1	89	538	48.4	"
" 10,	B	1	112	738	65.0	
" 14,	C	1	58	342	30.5	
" 14,	C	2	4	28	1.5	
" 21,	D	2	14	91	7.0	
" 23,	E	2	54	349	32.6	
" 24	F	2	106	610	67.7	
" 30	G	2	69	454	42.8	
October 1	H	3	125	698	70.1	
" 11	J	3	26	170	14.2	
" 12,	K	3	66	352	27.2	
" 13	L	3	65	348	34.0	
" 13	L	4	50	276	33.4	
" 14	M	4	65	408	39.3	
" 15	N	4	126	715	60.0	
" 19	P	4	22	100	10.6	
" 19	P	5	37	210	21.9	
" 20	Q	5	113	578	58.9	
" 25	R	5	12	80	6.9	
" 26	S	5	131	635	74.5	
" 29	T	6	69	362	36.8	
November 3	U	6	46	286	18.4	
" 4	V	6	94	520	50.0	
" 11	W	6	111	586	59.4	
" 12	X	7	17	94	9.0	
December 23	Y	7	5	35	3.0	
April 21, 1927,	Z	7	74	378	36.7	
May 1,	A'	7	42	236	23.7	
" 2,	B'	7	93	463	46.7	
" 10,	C'	7	61	374	32.2	
" 10	C'	8	4	24	2.3	
" 12	D'	8	7	35	4.2	
" 18	E' DI	8	5	26	2.0	
June 12	F'	8	22	117	12.5	
" 13	G'	8	95	403	34.5	

STATISTICS OF FIELD WORK

Statistics of field work executed by

Date of original instructions..... Dates of supplemental instructions.....

Date and place of beginning field work.....

Date and place of closing field work.....

	Fiscal year ending June 30, 192..			Fiscal year beginning July 1, 192..		
	First order	Second order	Third order	First order	Second order	Third order
RECONNAISSANCE, for triangulation or traverse:						
Length of scheme in statute miles.....						
Area in square statute miles.....						
Number of points selected for main scheme.....						
BASE LINES:						
Names and lengths of, in statute miles.....						
TRAVERSE:						
Length of, in statute miles.....						
Principal stations occupied for horizontal measures, number of.....						
Supplementary stations occupied for horizontal measures, number of.....						
Geographic positions determined, total number of.....						
TRIANGULATION:						
Length, along axis of arc.....						
Area, in square statute miles.....						
Signal poles erected, number of.....						
Signals built, number of.....						
Signals built, aggregate height of.....						
Stations in main scheme occupied for horizontal measures, number of.....						
Stations in supplemental schemes occupied for horizontal measures, number of.....						
Stations occupied for vertical measures, number of.....						
Geographic positions determined, total number of.....						
Elevations determined trigonometrically, number of.....						
LEVELING:						
Permanent bench marks established, number of.....						
Secondary bench marks established, number of.....						
Lines of leveling, length of, in statute miles.....						
LATITUDE, LONGITUDE, AZIMUTH, AND GRAVITY:						
Latitude stations occupied, names of.....						
Longitude differences, precise, number of, and names of stations.....						
Azimuth stations, names of.....						
Gravity stations occupied, names of.....						

MAGNETIC WORK:

	Fiscal year ending June 30, 192..			Fiscal year beginning July 1, 192..		
	D	I	H	D	I	II
Observations on land, number of results.....						
New primary stations, number of.....						
New auxiliary stations, number of.....						
Old stations reoccupied, number of.....						
New stations in old localities, number of.....						
Meridian lines established, number of.....						
Observations at sea, number of results.....						
Ship swings, number of.....						
Course observations, number of.....						
Observatory work.....						
Absolute observations, number of days.....						
Magnetograph in operation, number of days.....						
Seismograph in operation, number of days.....						
Meteorological observations, number of days.....						

TOPOGRAPHY:

	Fiscal year ending June 30, 192..	Fiscal year beginning July 1, 192..
Area surveyed in square statute miles.....		
Length of detailed shore-line in statute miles.....		
Length of shore-line of rivers in statute miles.....		
Length of shore-line of creeks in statute miles.....		
Length of roads in statute miles.....		
Topographic sheets finished, number of.....		
Topographic sheets, scales of.....		

Topographic sheets, limits and localities of:

Fiscal year ending June 30, 192.....

Fiscal year beginning July 1, 192.....

HYDROGRAPHY:

	Fiscal year ending June 30, 192..	Fiscal year beginning July 1, 192..
Area dragged, in square statute miles.....		
Area sounded, in square statute miles.....	500	
Number of miles (statute) run while sounding.....	1,228.0	
Number of positions determined (double angles).....	2,537.0	
Number of positions determined (wire drag).....		
Number of positions determined (R.A.R.).....		
Number of soundings.....	14,209.0	
Number of soundings (echo).....		
Number of tidal stations established.....	2	
Number of specimens of bottom preserved.....		
Current stations, number of.....		
Hydrographic sheets finished, number of.....	Sheet D	
Hydrographic sheets, scales of.....	1:40,000	

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET "D"

1. This hydrographic sheet was accomplished in compliance with Instructions dated July 31, 1926. The completed sheet was surveyed between the dates September 9, 1926 and June 30, 1927.

2. General Description of the Coast. The entire coast is flat, being composed of an outer strip of sand beach separated from the mainland by sloughs and marsh. The mainland and the tree line are in general about one mile back from the beach. The beach is low, with no very great elevation to any of the sand dunes and has very little vegetation except just south of o Jaw where there are some trees.

The most prominent landmark in this area is the black water tank at Wrightsville Beach which shows above the tree line from all directions and in clear weather can be seen about 18 miles, long before the shoreline is visible. This water tank is in about the center of the built up section of Wrightsville Beach.

One half mile northeast of the tank is the Oceanic Hotel, the cupola of which makes a good landmark. This cupola is lighted at night in the summertime and cannot be mistaken.

At Carolina, Wilmington and Kure Beaches are small built up sections which can be identified, although there are no very prominent objects here. A small green water tank near a large white hotel with three cupolas can be identified at Carolina Beach. At Wilmington Beach is a small red water tank and a dance hall which can be identified close inshore; and at Kure Beach is a small white water tank and a dance hall.

From the southern end of this area some of the range lights in Cape Fear River can be seen over the sand dunes, also the city lights at Southport can be seen. At night these lights might be mistaken by a stranger for lights on the beach.

3. The currents in this area are very slight and may be disregarded everywhere except in the inlets. In these inlets the current runs very strongly at times and with an ebb tide and a southerly or southeasterly sea they are very dangerous to enter.

4. Landmarks: See paragraph 2 above and descriptive report and list of positions accompanying topographic sheet covering this area.

5. There are no inshore dangers at a reasonable distance off the coast. At the southern end of the sheet the bottom is more irregular and there is less water farther off shore than to the northward. There are numerous small wrecks along the beach which small boats coasting close inshore should beware of.

6. The only inlet of value to Navigation is ^{Moore (CGN)} Wrightsville Inlet. This is buoyed, having entrance and channel buoys. However the channel is shifting and is dangerous for a stranger to negotiate in rough weather. Local pilots with much experience can bring small launches in here at any stage of the tide and in the roughest weather.

7. Vessels can anchor over the entire area, however, the holding bottom is rather poor especially inshore and too much trust should not be put in the anchor holding. This vessel anchored over the entire area and dragged many times in heavy blows.

8. The entire area was surveyed by hand lead soundings, from three quarters of a mile offshore to seaward by the ship and inshore from

that by the launch. The control was entirely by fixed positions on shore objects.

9. Attention is called to the following place names. The name of Wilmington Beach at Latitude $34^{\circ}00'$ on the present chart is incorrect. This is Kure Beach; Wilmington Beach occurring at Latitude $34^{\circ}01'$ N. and Carolina Beach at $34^{\circ}02'$ N. These three names are well known and are used by all local people.

The names of the inlets differ somewhat from those shown on the chart. Reading from the South end of the sheet North, the inlets are Masonboro Inlet (Lat. $34^{\circ}11'N$); ~~Moore's~~^{DGN} Inlet (Lat. $34^{\circ}13'N$) which is named Wrightsville Inlet on the chart; ~~Mason's~~^{DGN} Inlet (Lat. $34^{\circ}15'N$), which is named Queen's Inlet on the chart; Rich Inlet (Lat. $34^{\circ}18'N$); Elmore Inlet (Lat. $34^{\circ}20'N$) which is a new inlet recently formed, Old Topsail Inlet as shown on the chart having closed up; New Topsail Inlet (Lat. $34^{\circ}21\frac{1}{2}'N$)

The above changes were carefully checked and are used by all local people, most of them have never heard of the names used on the present chart.

Respectfully Submitted,

K.T. Adams

K. T. Adams, Commanding
Steamer Lydonia.

June	21, 1927	H'	8	68	305	34.0	Lydonia,
"	29,	J'	8	16	75	7.0	
"	30,	K'	8	4	16	1.6	
Grand Total: (for ship)				2177	12,064	1,129.1	

Sept.	23, 1926	a	18	95	632	26.4	Motor Launch.
"	24,	b	1	77	485	20.7	
Oct.	12,	c	1	93	464	24.2	
"	12	c	2	16	59	6.3	
Feb.	4, 1927,	d	2	79	475	21.3	
Total for ship and launch:- - -				2,537	14,209	1,228.0	

Copy for Record Section files

February 24, 1928.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET 4876

Locality: OFF WRIGHTSVILLE, NORTH CAROLINA.

Chief of Party: E. T. Adams, 1926 - 1927.

Plane of reference is M L W
1.3 ft. on tide staff at Wrightsville Inlet.
1.5 " " " " " Cape Lockout.

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

G. V. Rude

Chief, Division of Tides and Currents.

253
28-30

281-30

Report on N. 4676

Surveyed in 1926 - 1927

Report on verifying and Inking N. 4676

Chief of Party, K. J. Adams. Surveyed by K. J. Adams.

Protracted by P. L. Bernstein. Soundings plotted by

Verified and Inked by Robert C. Johnson. } F. R. Gassett

Topography inked by field men.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of development fulfills the requirements of the General Instructions.
4. The sounding line crossings are in most cases adequate. Some differences of 5 to 7 ft were noticed.
5. The usual depth curves could be drawn.
6. The field plotting was completed to the extent prescribed in General Instructions. A few cases where wrong soundings were plotted were noticed.
7. None of field drafting was done over by office draftsman.
8. Junctions with adjacent sheets are satisfactory. A few differences of 4 or 5 ft. were noticed.

9. Further surveying to develop important areas is not required except possibly on sub-plan where channel was not fully located.

10. A few errors in pratracting were noticed. Spacing of soundings was very well done.

AND REFER TO NO. 11-DRM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

August 13, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4676

North of Cape Fear - New Topsail Inlet to Kure Beach

Instructions to LYDONIA dated July 31, 1926

Chief of Party, K. T. Adams.

Surveyed by K. T. A.

Protracted by P. L. Bernstein.

Soundings plotted by F. R. Gossett.

Verified and inked by R. C. Johnson.

1. The plan and development conform to the General and specific instructions.
2. No further surveying is necessary to fully develop the area covered by this sheet unless it be considered advisable to further develop Moores Inlet; examine the 13 ft. spot just east of Elmores Inlet, two shoals near the southern limit of the sheet in about latitude $33^{\circ} 59'$ and two or three similar 6 fathom spots about 2 miles to the northward.

¹⁹²⁷ Moores Inlet was not well developed, probably because it is frequently changing, and local pilots can be obtained. The 13 foot sounding just east of Elmores Inlet lies outside of two 18 foot soundings and there is no evidence to show whether it is a shoal or an erroneous sounding. The Chiefs of Field Records and Field Work recommend the retention of the 13 foot sounding on the sheet.
3. Depth curves were drawn and agreed fairly well with those of previous less detailed surveys.
4. Junctions with adjacent sheets were very good.
5. It was noted that a number of inshore lines run by the launch showed a gradual shoaling at their ends. Where this has happened the ends of the launch lines do not agree very well with the beginning of the ship lines, causing a number of sharp turns in the 5 fathom curve.

6. The sounding records did not locate the beginnings and ends of lines. A number of soundings were found to be incorrectly reduced.
7. Five buoys were located in Moore's Inlet. The buoys are not shown on existing charts on account of frequent changes due to changing channel. However, it was noted that one buoy designated as number 3 in the sounding record is not shown in the Buoy Lists.
8. Soundings on cross lines checked very well except in two or three places where differences amounted to about 5 feet.
9. The character and scope of the surveying were very good and the field drafting was good. A few details of the shoreline were left off by the field draftsman.
10. Reviewed by W. M. Gibson, Jr. H. & G. E., April 13, 1928.

Approved:

Chief, Section of Field Records (Charts)

Chief, Section of Field Work (H. & T.)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

C. & G. SURVEY
L. & A.
NOV 25 1927
Acc. No.

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

4676

U. S. Coast and Geodetic Survey.

Register No. **4676**

State **North Carolina.**

General locality **North of Cape Fear**
~~off Wrightsville Beach.~~

Locality **New Topsail Inlet to Kure Beach**
~~16 mi. S.W. to 14 mi. N.E. of Wrightsville Beach.~~

Chief of party **K. T. Adams.**

Surveyed by **K. T. Adams.**

Date of survey **September 9, 1926 to June 30, 1927.**

Scale **1:40,000.**

Soundings in **Feet.**

Plane of reference **M. L. W.**

Protracted by **P.L.B.** Soundings in pencil by **E.R.G.**

Inked by Verified by

Records accompanying sheet (check those forwarded):

Des. report, Tide books, Marigrams, **2** Boat sheets,

10 Sounding books, Wire-drag books, Photographs.

Data from other sources affecting sheet

Remarks: