

3436

Diag. Cht. No. 1234-2

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. Office No. H-3436

LOCALITY

State NORTH CAROLINA

General locality BEAUFORT HARBOR AND VICINITY

Locality

1913

CHIEF OF PARTY

J. B. Bontelle

LIBRARY & ARCHIVES

DATE MAY 10, 1913.

B-1870-1 (1)

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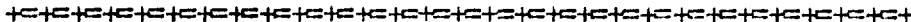
Descriptive Report to Accompany Hydrographic Sheets: (*Field No. 1812*)

BEAUFORT HARBOR AND VICINITY

North Carolina

1913

Coast and Geodetic Survey Steamer "Endeavor".



Sheet No. (Field No. 1) Scale 1-10,000, comprises the area from Morehead City to Harker's Island, and the dredged channels leading north from Morehead City and Beaufort as far as Russell Creek Light, the channel north of this light and leading into Core Creek will be found in the records of the Steamer "Hydrographer" which was working in conjunction with the "Endeavor". Sheet No. (*Field No. 12*) includes part of North River adjoining Sheet No. (*Field No. 1*).

The sounding over the bar at entrance to Beaufort Harbor will have to be plotted as a sub-sketch, the sheet not being wide enough to take it in. There is room for it on the north side of the sheet.

Method of Survey: Several old triangulation stations were recovered and from these points were determined over the area covered by the sheet. A list of geographic positions of all stations on the sheet is attached hereto; where a different name for a station is used in the hydrographic record it is so stated in a separate column in the list. The water being too shoal for the ship all the sounding was done in the boats. The channels were re-surveyed by parallel lines approximately 50 meters apart and a few lines run over the very shoal areas, enough to make a comparison with previous work. Numerous changes were found especially in the vicinity of Beaufort Inlet, they can best be seen after the fair sheet is plotted. The depths in the vicinity of the inlet are liable to frequent change especially after

stormy weather and any survey made in this vicinity is only good for a few months.

On the topographic sheet of this locality will be found numerous low water lines, determined in some cases by the plane table and elsewhere by sextant from a skiff at low water. There are several dry sand bars determined in the same manner. Accompanying this sheet are two blueprints of work by the Corps of Engineers, U.S.A. One of Beaufort Harbor and vicinity showing soundings in 1907 and 1908 preliminary to dredging the channels leading north to the Adams Creek Canal. This can be used for areas outside of the dredged channel. The other of part of Bogue Sound opposite Morehead City is revised up to 1912 and I was able to plot an approximate projection upon it from two of the U.S.E. stations shown on the sheet and this can be used for the area west of the work of my party in 1913.

For general information in regard to the towns of Beaufort and Morehead City I would refer to House Doc. No. 1454, 60th Congress, 2nd Session and House Doc. Nos. 649 and 511, 61st Congress, 2nd Session sent herewith.

I also send herewith a projection of this area on a scale of 1-20,000 sent me from the office but owing to the difficulty of showing the work on so small a scale I have made the two projections referred to above, on a scale of 1-10,000. Part of the work contained in the records sent herewith, that in Back Sound south of Harker's Island, is included in the work assigned to the Steamer "Hydrographer", P.C. Whitney, Assistant and Chief of Party, Commanding, and should be plotted on the hydrographic sheet sent in by him. A copy of the sounding record was furnished to Captain Whitney.

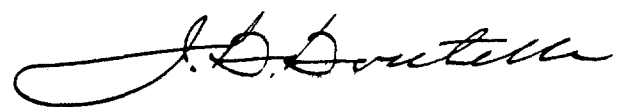
Tidal Observations: Tide gauges were established at Morehead City, Beaufort, Penn Lumber Company's wharf, mouth of North River, and at Harker's Island. The gauge at Morehead City was connected by levels with 6 B.M's. previously determined. At Beaufort 5 B.M's. were recovered and connected

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with the gauge but owing to the very discrepant results obtained for the reading of low water it was also connected by simultaneous observations with the Morehead City gauge. The gauge at Penn Lumber Company's wharf, North River, was a new one and was referred to Beaufort gauge by simultaneous readings. At Harker's Island several old B.M. were recovered and connected by levels with the gauge of 1913.

There is sent herewith: A list of all hydrographic records; A list of geographic positions of stations used on the sheet. Two boat sheets. Two blueprints by U.S. Engineers and House Documents referred to above.

Respectfully Submitted,



Ass't., C. & G.S., Chief of Party,
Com'd'g. Steamer "Endeavor".

*Blueprints filed with blueprints
House documents placed on file in CC in
G.T.*

1.

Department of Commerce and Labor
COAST AND GEODETIC SURVEY
Form 28To accompany Hydrographic Sheet No. *Field No 1 x 1^a***3436 & GEOGRAPHIC**

Locality

Beaufort Harbor and vicinity, North Carolina.

Datum.

11-676

STATIONS.	Name used in Hydro. Record.	LATITUDE.			Seconds in Meters.	LONGITUDE.			Seconds in Meters.
		°	'	"		°	'	"	
New Macon Ast. 1886-1913	Macon	34	41	47.105	1451.5	76	40	44.678	1137.1
Lynch 1886-1913		34	42	30.112	927.9	76	37	33.478	852.0
Willis Bluff 2.1908-113	Will	34	41	56.226	1732.5	76	34	53.868	1371.3
Town Marsh 1886-1913	Marsh	34	42	44.98	1386.1	76	40	04.10	104.3
Guthrie 3. 1913	Guth	34	42	47.177	1453.8	76	39	20.565	523.2
Coon 1913		34	41	10.344	318.7	76	38	52.398	1333.8
Morehead City, tall water tank 1913	Tank	34	43	16.717	515.0	76	42	31.717	807.1
Tom 1913		34	40	58.293	1796.1	76	37	34.428	876.4
Money 1913		34	42	07.861	242.2	76	43	14.126	359.5
Oak 1913		34	43	12.327	379.8	76	43	42.991	1093.9
Lump 1913		34	42	24.432	752.8	76	44	53.963	1373.3
Ruin 1913		34	44	49.190	1515.7	76	42	11.315	287.8
Rock 1913		34	43	24.226	746.5	76	40	16.756	426.3
Gallant 1913	Gal	34	44	02.340	72.1	76	40	14.450	367.6
Bull 1913		34	40	18.160	559.6	76	35	20.436	520.3

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GEOGRAPHIC

Locality Beaufort Harbor and vicinity, North Carolina.

Datum.

11-876

STATIONS.	Name used in Hydro.Re- cord	LATITUDE. ° ' "	Seconds in Meters.	LONGITUDE. ° ' "	Seconds in Meters.
Fish ✓		34 42 29.764	917.1	76 36 58.415	1486.5 ✓
Hark ✓		34 42 47.685	1469.3	76 35 12.017	305.8 ✓
North ✓		34 45 06.305	194.3	76 37 19.248	489.6 ✓
Ward ✓		34 44 56.326	1735.6	76 35 19.864	505.3 ✓
Steep ✓		34 43 43.510	1340.7	76 37 20.490	521.3 ✓
Pig ✓		34 43 35.162	1083.5	76 34 59.930	1524.8 ✓
Shackleford Pt. Range Front Light 1913 ✓	Range Shack	34 41 25.75	793.4	76 39 38.67	984.4 ✓
Shackleford Pt. Range Rear Light 1913 ✓	shack	34 41 55.85	1720.9	76 39 11.26	286.6 ✓
Bird Island Range Front Light 1913 ✓	Front	34 41 50.74	1563.5	76 39 59.31	1510.5 ✓
Bird Island Range Rear Light 1913 ✓	Bird	34 42 13.08	421.5	76 39 49.10	1249.6 ✓
Shark Shoal Light 1913 ✓	Beacon	34 42 17.62	542.9	76 40 42.56	1083.0 ✓
Reids Creek Light 1913 ✓	Reid ✓	34 42 50.31	1550.2	76 40 44.82	1140.6 ✓
Middle Marshes Light '13 ✓	Post	34 42 01.22	37.6	76 37 02.71	68.1 ✓
Shepherd Shoal Light '13 ✓	Shep	34 42 17.88	551.0	76 35 48.52	1234.7 ✓
North River Light 1913 ✓	River	34 42 57.85	1782.6	76 35 19.11	486.3 ✓
Mud		34 43 20.26	624.3	76 34 31.07	790.6 ✓
Tree		34 42 47.34	1458.7	76 34 29.49	750.4 ✓

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GEOGRAPHIC

Locality Beaufort Harbor and vicinity, North Carolina.

Datum.

11-676

STATIONS.	Name used in Hydro. Record	LATITUDE. ° ' "	Seconds in Meters.	LONGITUDE. ° ' "	Seconds in Meters.	
Log Slough Light ✓		34 45 19.61	604.4	76 41 22.13	556.0	✓
Russels Creek Light ✓		34 45 27.74	855 *	76 40 25.87	658 *	✓
Newport Marshes Upper Lt. ✓	New	34 44 21.66	667.5	76 40 54.18	1378.2	✓
Core Creek Range Front Lt. ✓ K. day		34 46 17.10	527 *	76 41 09.00	229 *	✓
Core Creek Range Rear Lt. ✓		34 46 06.98	215 *	76 41 08.53	217 *	✓
Range Tower, Red, 1913 ✓	Red ✓	34 42 48.38	1490.8	76 39 31.75	807.9	✓
Range Tower, White, 1913 ✓	White	34 42 24.67	760.2	76 38 44.96	1145.1	✓
Beaufort Court House, Finial of Cupola, 1913 ✓	Cort	34 43 10.94	337.1	76 39 46.35	1179.4	✓
Beaufort Elec. Lt. Works Tall black stack ✓		34 43 04.35	134.0	76 39 19.04	484.5	✓
Biol. Station, Wireless Pole, East, 1913 ✓	Pole	34 43 07.71	237.6	76 40 18.25	464.4	✓
Biol. Station, Wireless Pole, West, 1913 ✓		34 43 08.79	270.9	76 40 22.70	577.6	✓
Biol. Station, East Cupola, 1913 ✓		34 43 09.53	293.6	76 40 20.34	517.5	✓
Biol. Station, West Cupola, 1913 ✓		34 43 09.53	293.6	76 40 21.28	541.5	✓
Gallant Pt. Fish Factory Tall Stack ✓	Fact	34 43 49.23	1517.2	76 40 07.06	179.6	✓
White House, East Gable ✓	Gable ✓	34 44 12.48	384.6	76 42 30.11	766.0	✓

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* Taken from topographic sheet.

POSITIONS.

State

	AZIMUTH. ° ' ''	BACK AZIMUTH. ° ' ''	TO STATIONS.	DISTANCE. Meters.	LOGARITHMS
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GEOGRAPHIC

Locality Beaufort Harbor and vicinity, North Carolina.

Datum.

11-576

STATIONS.	Name used in Hydro. Record	LATITUDE.			Seconds in Meters.	LONGITUDE.			Seconds in Meters.
		°	'	"		°	'	"	
Morehead City, M.E. Zion Church, 1913 ✓		34	43	20.73	638.8	76	43	06.98	177.6 ✓
Galv. Iron Smoke Stack 1913 ✓		34	43	19.62	604.6	76	43	57.32	1458.5 ✓
Carolina City White Tank 1913 ✓		34	43	36.21	1115.7	76	45	10.25	260.8 ✓
Mid, Flag in tree, 1913 ✓	Mid.	34	41	18.01	545.0	76	36	45.99	1170.7 ✓
Fish Factory Tall Stack 1913 ✓		34	42	27.88	859.1	76	37	05.78	147.1 ✓
Shed, Southwest corner 1913 ✓	shed	34	40	56.42	1738.5	76	36	42.12	1071.2 ✓
Penn, (Penn Lumber Company Tallest Stack, 1913) ✓	Penn	34	42	39.51	1217.4	76	38	58.50	1488.7 ✓
L.S.S. Flag Staff, 1913 ✓		34	41	45.37	1398.0	76	40	49.59	1262.1 ✓
Station "C" U.S.E. ✓		34	42	27.21	838.4	76	41	35.03	891.5 ✓
Mid. City R.R. Water Tank	Tower ✓	34	43	12.12	373.5	76	41	53.00	1348.6
Newport R. Range No.1 Rear		34	45	48.06	1481*	76	40	15.02	382*
Newport R. Range No.1 Front		34	45	36.41	1122*	76	40	19.97	508*
Newport R. Range No.2 Rear		34	44	35.76	1102*	76	39	40.88	1040*
Newport R. Range No.2 Front		34	44	53.09	1636*	76	39	55.22	1405*
Gallants Chan. Range No2 Fr.		34	45	08.83	272*	76	39	42.10	1071*
Gallants Chan. Range No1 Fr.		34	44	24.79	764*	76	40	07.90	201*
Gallants Chan. Range No1 Rr.		34	44	12.56	387*	76	40	04.91	125*
Man (Hydro ^s signal)		34	43		233	76	36		391

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* Taken from topographic sheet.

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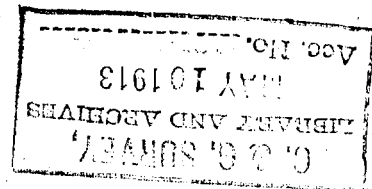
STATISTICS

To accompany Hydrographic Sheet No. Field No. 1

Beaufort Harbor and Vicinity

NORTH CAROLINA

1913



C. & G. S. Str. "Endeavor", J. B. Boutelle, Asst. C. & G. S. Comdg.

Date	Boat	Vol.	Day	Pos.	Sdgs.	Miles	Remarks
Feb. 20	Launch 44	1	blue a	119	1511	15.7	
21	"		b	59	603	6.5	
21	"	2	b	41	302	4.0	
24	"		c	119	1116	13.8	
25	"		d	66	766	10.0	
25	"	3	d	59	712	9.5	
26	"		e	140	1422	17.0	
Mar. 1	"		f	11	78	1.0	
1	"	4	f	45	342	4.0	
3	"		g	131	976	10.6	
4	"		h	77	580	9.2	
4	"	5	h	35	317	5.0	
5	"		i	118	986	11.8	
6	"		k	66	832	9.0	
6	"	6	k	14	212	2.1	
Carried forward -----				1100	10755	129.2	

Continuation of statistics of Beaufort Harbor & Vicinity

Date	Boat	Vol.	Day	Pos.	Sdgs.	Miles	Remarks
	Brought forward		---	1100	10755	129.2	
Mar. 7	Launch 44	6	l	19	121	1.5	
13	"		m	128	987	12.9	
14	"		n	72	656	7.2	
14	"	7	n	29	328	4.0	
17	"		o	68	958	10.8	
18	"		p	88	1033	12.6	
19	"	8	q	27	368	4.3	
21	"		r	108	1186	13.0	
22	Whaleboat	9	a	45	408	3.1	
24	"		b	101	915	8.0	
29	Launch 44	8	s	57	531	8.3	
Apr. 8	Whaleboat	13	k	26	213	1.1	
9	"		l	108	951	7.0	
12	Launch 44	15	x	36	373	5.0	
14	Whaleboat	13	m	40	342	2.6	
15	"	17	n	61	676	5.0	
21	Launch 44	16	z	12	106	2.4	
22	"		a'	82	661	14.5	
Totals		-----	-----	2207	21568	252.5	

Launch day letters in blue.

Whaleboat " " green.

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STATISTICS

C. & G. SURVEY,
LIBRARY AND ARCHIVES

MAY 10 1913

Acc. No. _____

To accompany Hydrographic Sheet No.

Field No. 1^a

Beaufort Harbor and Vicinity

North River

NORTH CAROLINA

1913

C. & G.S. Str. "Endeavor", J.B. Boutelle, Asst., C. & G.S., Comd'g.

Date	Boat	Vol.	Day	Pos.	Sdgs.	Miles	Remarks
March 25	Whaleboat	10	green o	91	874	6.0	
26	"		d	81	757	6.0	
28	"		e	41	352	4.0	
28	"	11	e	57	663	4.6	
31	"		f	123	1544	11.4	
April 1	"	12	g	90	1052	7.7	
2	Dory		h	31	267	3.5	
3	Whaleboat		j	76	771	5.6	
3	"	14	j	11	149	1.0	
Totals -----				601	6429	49.8	

VEC
June 10, 1913

HYDROGRAPHIC SHEET 3436.

C. B. J.
A. B.
6/10/13

Beaufort Harbor and Vicinity, North Carolina, by Assistant J.B.

Bottle in 1913.

TIDES.

	Beaufort	Morehead City	Lennoxville	Harker Id.
	ft.	ft.	ft.	ft.
Mean low water, or plane of reference on staff	2.3	2.8	3.2	1.0
Lowest tide observed " "	1.0	1.4	2.4	0.3
Highest " " " "	6.2	7.1	4.6	3.6
Mean range of tide	2.7	2.5	1.6	1.4

~~Coast and Geodetic Survey~~

JUN 10 1913

TIDAL DIVISION

Hyp. Sheet No. 3436.
Beaufort Harbor. N.C.

The work covered by this sheet is closely run and the channels and shoals well developed. A few cross lines of soundings, with channels and shore lines would have been advisable in order to check the other work, especially at the beginning of each line to the next position.

Previous work in this locality has not been considered in connection with this sheet as all previous work date back some 35 odd years, and in view of the statement of Capt. Bontelle that frequent changes are liable in this vicinity especially after stormy weather (Descriptive Rept)

Under position 17^a ~~Under~~ Launch day sunken rocks are referred to and under positions 17-18^a day, Launch, piling abeam is referred to but in neither case is a definite position given.

This work is considered good throughout and the records especially good.

The soundings are plotted in feet.

John D. Torrey

Verified by J. P. Shiklan
10 - 14 - 13.