



3923

C. & G. SURVEY
L. & A.
FEB 23 1917
Acc. No.

Diag. Ch. No. 1222-2

Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: *Virginia*
11-5613

DESCRIPTIVE REPORT.

Hydrographic No. *3923*

LOCALITY:
South Coast
of Chesapeake
Bay & Thimble
Shoal.

1917

CHIEF OF PARTY:
Paul C Whitney

3923

Discriptive Report
to accompany Hydrographic Sheet
South Coast of Chesapeake Bay and Thimble Shoal
Virginia

executed during the period
July 7th, 1916 to January 9th, 1917

by the party attached to

Steamer Bache

Paul C. Whitney

Chief of Party

The hydrography on this sheet was executed in conformity with the Superintendent's instructions of June 3, 1916.

The limits to be covered were drawn on a copy of Chart 1222, and this area was completed, excepting a few days of ship work, delayed by repairs and other conditions and this is to be finished during the summer of 1917.

The launch hydrography was executed by a party living first at Lynhaven Inlet and later shifting to Willoughby Spit. During the greater time the ship was undergoing repairs at Norfolk.

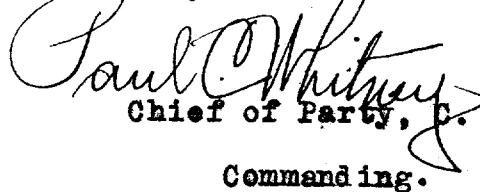
The positions of the signals used were either furnished by the office or depend upon locations determined this year by triangulation or topography.

The launch hydrography was executed with sufficient thoroughness and density of lines throughout the

areas to be reasonable sure that the work would not call for any new surveys in the near future. The ship work was sounded out closer than called for in my instructions but the character of the bottom I think justified the closer development.

Tides were read to reduce this hydrography at a tide staff established previously by Assistant Luce on the railroad bridge across Lynhaven Inlet and at a staff established by this party on the steamboat landing at the western end of Willoughby Spit. This staff was connected to the Lynhaven Staff by simultaneous readings.

Respectfully submitted



Chief of Party, C. & G. Survey
Commanding.

Statistics Sheet No. **3923**.....Continued.
 Cape Henry to Willoughby Spit, Virginia
 Steamer Bache
 1916

Date 1916	Letter	Vol.	Positions	Soundings	Miles	Boat
Sept. 1	d'	6	45	207	9.0	Launch 52
" 1	d'	7	68	304	12.8	" "
" 2	e'	7	65	391	12.6	" "
" 5	f'	7	91	377	17.3	" "
" 6	g'	7	38	203	9.2	" "
" 7	h'	7	107	547	24.0	" "
" 7	h'	8	9	42	1.4	" "
" 8	i'	8	59	399	13.9	" "
" 9	j'	8	29	177	8.0	" "
" 14	k'	8	66	436	13.8	" "
" 15	m'	8	80	440	15.6	" "
" 18	n'	8	20	116	3.2	" "
" 18	n'	9	61	346	13.1	" "
" 19	p'	9	87	645	11.0	" "
" 20	q'	9	97	735	18.2	" "
" 21	r'	10	72	526	16.5	" "
" 22	s'	10	35	233	7.4	" "
" 25	t'	10	102	713	19.4	" "
" 26	u'	10	43	357	9.1	" "
" 26	u'	11	25	227	5.3	" "
" 27	v'	11	15	88	2.3	" "
" 29	w'	11	53	397	11.0	" "
Oct. 5	x'	11	55	372	11.5	" "
" 7	y'	11	33	141	5.4	" "
" 9	z'	11	58	306	9.4	" "
" 9	z'	12	48	207	8.6	" "
" 12	a''	12	69	251	10.5	" "
" 16	b''	12	41	143	2.8	" "
" 20	c''	12	6	26	0.5	" "
Dec. 28	d''	12	18	70	2.6	New port Launch
" 30	e''	12	40	175	6.0	" " "
		7	1635	9597	310 9	
Grand Total.		17	4899	27387	1002 8	

Tidal Note
Reference Planes
 Lynhaven Inlet Tide Staff, 2.8 feet
 Willoughby Spit " " 2.8 feet

Statistics Sheet No. 3923
 Cape Henry to Willoughby Spit, Virginia
 Steamer Bache
 1916

Date 1916	Letter	Vol.	Positions	Soundings	Miles	Boat
July 11	A	1	157	1175	36.8	Bache
" 12-	B	1	134	917	32.8	"
" 12-	B	2	41	225	9.8	"
" 13	C	2	208	1262	51.8	"
" 14-	D	2	78	467	23.0	"
" 14-	D	3	76	432	19.0	"
Oct. 29	E	3	148	931	36.2	"
1917						
Jan. 6	F	3	122	597	29.0	"
" 8	G	3	25	132	6.9	"
" 8	G	4	117	728	38.1	"
" 9	H	4	112	705	36.0	"
Total Bache		4	1218	7571	319.4	

1916						
July 7	a	1	20	106	2.8	Launch 52
" 8	b	1	40	237	5.5	" "
" 10	c	1	68	355	11.0	" "
" 11	d	1	111	701	21.7	" "
" 12	e	1	85	521	19.0	" "
" 13	f	2	100	677	17.4	" "
" 17	g	2	108	651	25.7	" "
" 18	h	2	29	149	5.8	" "
" 21	k	2	60	324	11.3	" "
" 21	k	3	26	159	3.2	" "
" 22	m	3	50	309	12.0	" "
" 24	n	3	67	366	14.2	" "
" 25	p	3	99	237	21.4	" "
" 26	q	3	87	487	17.8	" "
" 26	q	4	12	84	2.4	" "
" 27	r	4	112	678	25.9	" "
" 28	s	4	28	144	5.4	" "
Aug. 10	t	4	68	334	14.0	" "
" 11	u	4	26	137	3.0	" "
" 12	v	4	66	329	7.1	" "
" 12	v	5	18	95	4.3	" "
" 14	w	5	76	397	16.1	" "
" 15	x	5	162	608	33.5	" "
" 21	y	5	144	379	23.8	" "
" 22	z	5	68	241	10.5	" "
" 22	z	6	122	399	19.1	" "
" 23	a'	6	72	227	10.0	" "
" 25	b'	6	20	90	2.8	" "
" 28	c'	6	100	489	17.8	" "
		6	2046	10219	372.5	

VEC
Apr. 26, 1917

HYDROGRAPHIC SHEET 3923.

Chesapeake Bay, Virginia, by party of Assistant P.C. Whitney
in 1916.

TIDES.

	Lynnhaven Inlet. Feet.	Willoughby Spit. Feet.
Mean low water, or plane of reference on staff	2.8	2.8
Mean range of tide	2.0	2.6

This sheet was protracted in the field by L. G. Howe & J. H. Durgin, with the exception of positions 67a' - 72a' inclusive which were plotted on the sheet when penciled in the office.

A number of doubtful looking points were corrected at the time the soundings were plotted - reprotracting them when by inspection they appeared incorrectly plotted.

The area appears to be very well covered insofar as it went but the work laid out for the ship was not completed (See 2d TP of Descriptive Report) This lack of work includes the main channel to the east of the area covered by the ship.

The sounding "21^{ft}" occurring 1 minute after 77 E' (Ship - p 27 Vol 3) appears to be a fathom to small. Also the sounding "28^{ft}" occurring 1/2 min before 124 E' (Ship - p 34 Vol 3) is apparently a fathom to deep. This one was omitted in plotting the soundings.

The soundings by the launch were apparently more trustworthy than those by the ship as the long finger like projections and indentations in the depth curves are not nearly so pronounced in the work done by the launch as in that done by the ship. The discrepancy between launch work and ship work where the two overlapped was all the way from 0 - 7' and in some cases gave rise to marked irregularities in the depth curves.

In the case of the shoal bounded by the 18' ft curve to the N.E. of Think Shoal L. H. (new), one line shows 19 and 20 ft of water over this shoal cutting it completely in two. Probably incorrect.

In the channel S. E. from Think Shoal L. H. ^{at least} 36 ft of water is shown on all lines crossing it but several fail to show 36 ft.

I'm comparing this sheet with old work as shown on parts of sheets 2861, 2866, 2867 and 3041. The following things were noted:-

The cluster of small shoals to the N.E. of "Black Bn" on 2861 has filled till on #3923 it shows an one large shoal point. Also the location of the 6' curve in the Bay of Willoughby Spit has changed greatly.

On 2866 the shoal bounded by the 18' curve N.E. of Think Shoal L. H. is not cut across as in 3923 adding not to the incorrectness of the line 15 E to 19 E (Ship)

On comparing with 2867, the areas common to the two sheets seem in general to have deepened slightly.

In comparison with 3041 as in the cases of the other mentioned above changes sufficient to very much change the shape of the depth curves have taken

(3)

place, though no very great depth
changes were noticed in the comparisons.
Changes appear to be very general however
over the whole area between Lynnhaven Point
and the western border of #3923

Howard S. Pappage
Topographic Draftsman

May 19th 1917

Soundings shown in feet

Projected by field party
Soundings plotted by H. R.

Applied ~~input~~ to chart 3334 10/28/49 C.R. Wittman