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C. & G. SURVEY,
LIBRARY AND ARCHIVES
JUN 5 1912
Acc. No

Reg. Chart No. 18-2

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

Superintendent

State: *Va*

DESCRIPTIVE REPORT.

Hyd. Sheet No. *3361*

LOCALITY:

Chesapeake Bay
Tanger D to Tides Struck

19*11*

CHIEF OF PARTY:

J. B. Boutelle

3361

H. 3361.

Very good sheet, close work in the area covered.

Sheet examined in Div.
of Hyd. & Topog.

3361

DESCRIPTIVE REPORT

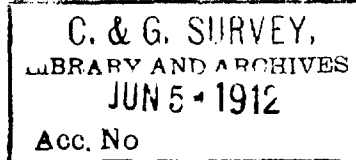
to accompany Hydrographic Sheet Field No. 3

CHESAPEAKE BAY,

Tangier Island to Kedges Strait.

1911.

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This sheet comprises a resurvey of this area from the shore line to the 4-fathom curve, lines approximately 100 meters apart and crossed about 400 meters apart.

Principal signals were determined by triangulation and intermediate ones by plane table or sextant angles from ship positions.

TIDAL DATA:-- Tide stations were established at Cod Harbor, south end of Tangier Island, and at Solomons Lump Light House in Kedges Straits. The former was used about as far north as Shank Station, and the latter from Shank to the north end of the work.

In reducing soundings a time allowance was used based on a table furnished by the Tidal Division, a copy of which is enclosed.

Very little change from the present chart was noticed during the work. In general there seemed to be a little more water than the chart shows and the curves have moved slightly towards the shore. This can be judged better after the reduced soundings have been plotted.

Positions on this sheet have been plotted by Cecil G. Young, Aid, C. & G.S.

Some of the soundings referring to the gauge at Cod Harbor have still to be reduced, that tide book having been sent to the office.

Accompanying this report there is:--

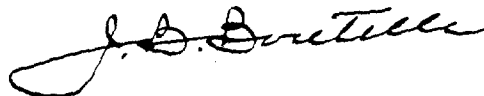
✓ A table of geographic positions of signals.

✓ A table of time corrections to tide.

✓ A table of statistics of records, etc.

attached to the Sheet

Respectfully submitted,



Asst., C. & G. S.,

Chief of Party.



C. & G. SURVEY,
 LIBRARY AND ARCHIVES
GEOGRAPHIC
 JUNE 1922

List of geographic positions of
 stations on Sheet, Field No. 3

Datum.

Locality **CHESAPEAKE BAY.**
 11-876

STATIONS.	LATITUDE.		Seconds in Meters.	LONGITUDE.		Seconds in Meters.
	°	' "		°	' "	
Watts' Island L.H. 1849-71 r. 1900. n.d.	37	46 56.530	1742.8	75	53 36.752	899.3 ✓
Shank's Hammock 2 Md. 1898	37	55 21.407	660.0	76	02 30.443	743.5 ✓
Tangier Sound L.H.	37	47 16.878	523.4	75	58 26.563	650.0 ✓
Hog, 1911	37	58 17.288	533.0	76	02 54.210	1323.2 ✓
Smith 2, 1911	38	00 53.368	1645.6	76	03 05.296	129.2 ✓
Fog 3, 1911	38	02 07.654	236.0	76	02 30.402	741.4 ✓
Smith's Island, North End Church, spire. 1911	37	59 42.485	1310.0	76	02 01.022	24.9 ✓
Cheese, 1911	37	56 50.869	1568.2	76	02 59.319	1448.3 ✓
Pop. (tall prominent pop- lar tree, N. end Smiths Id)	37	59	1372.	76	02	590. ✓

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POSITIONS.

State

AZIMUTH.

° / "

BACK AZIMUTH.

° / "

TO STATIONS.

DISTANCE.

Meters.

LOGARITHMS.

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GEOGRAPHIC

List of geographic positions of
stations on Sheet, Field No. 3 Datum.Locality **CHESAPEAKE BAY.**
11-876

STATIONS.	LATITUDE.		Seconds in Meters.	LONGITUDE.		Seconds in Meters.
	°	' "		°	' "	
Red, 1911	37	48	210	75	58	1217
Shot, 1911	37	48	939	76	00	190
Gig, 1911	37	54	759	76	01	1434
Fish House, chy. 1911	37	55	326	76	00	600
Herring Id. Ho. Chy. 1911	37	54	128	76	00	748
Soft, 1911	37	53	208	76	00	1057
Son, 1911	37	52	836	76	00	1036
Pole, (black flag on fish trap) 1911	37	52	152	76	02	1154
Trap, (black target on fish trap) 1911	37	50	871	76	02	1058
Hum. (black target on fish trap) 1911	37	54	475	76	03	481

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POSITIONS.

State

AZIMUTH.

BACK AZIMUTH.

TO STATIONS.

DISTANCE.

LOGARITHMS.

° / "

° / "

Meters.

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GEOGRAPHIC

List of geographic positions of
stations on Sheet. Field No. 3 Datum.

Locality CHESAPEAKE BAY.

11-676

STATIONS.	LATITUDE.		Seconds in Meters.	LONGITUDE.		Seconds in Meters.
	°	' "		°	' "	
Hard, (black target on fish trap.) 1911	38	01	70	76	04	362
Rock, (black target on fish pole.) 1911	37	59	40	76	03	1351
Man. (black target on fish pole). 1911	37	56	952	76	04	190
Ruf. (black target on fish pole.) 1911	38	01	188	76	04	712
Red Spar Bouy No. 2. (1911) <i>O.K. in May 1912</i>	38	03	620	76	02	757
Blk.&Wht. P.S. Bouy (1911) (washed away) <i>Replaced about 100 m. S.S.W. of above position (1912)</i>	38	03	55	76	03	913
R. S. Bouy No. 12, (1911)	37	46	1300	76	05	300
R. S. Bouy No. 1, (1911)	37	46	264	76	00	236
Goose Tree, 1910-11	37	52	148	76	00	340

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POSITIONS.

State

AZIMUTH.

BACK AZIMUTH.

TO STATIONS.

DISTANCE.

LOGARITHMS.

° / "

° / "

Meters.

Do not write in this margin.

GEOGRAPHIC

List of geographic positions of
 stations on Sheet. Field No. 3 Datum.

Locality **CHESAPEAKE BAY.**

11-576

STATIONS.	LATITUDE.		Seconds in Meters.	LONGITUDE.		Seconds in Meters.
	°	' "		°	' "	
Texas, (1911)	37	43 10.192	314.2	76	04 41.519	1016.8
Cod, (center of roof of wharf house) 1911	37	48	1130.	75	59	586.0
Skeet, 1911	37	50	1129.	76	00	390
Tar, (target on fish trap) 1911	37	47	1552	76	01	34
Church, (Tangier Id. Ch. spire) 1898	37	49 38.161	1176.5	75	59 32.552	796.1
Solomon Lump L.H. 1898 n.d.	38	02 52.845	1629.4	76	00 54.953	1339.8
Bar, (Holland Id. Bar L.H.) 1897-1901 n.d.	38	04 07.268	224.1	76	05 45.870	1118.2
Ship, (Stack of "Endeavor" at anchor)	37	55	942	76	04	130
Stack, (Stack of "Endeavor" at anchor)	38	02	44	76	03	1214

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POSITIONS.

State

AZIMUTH.

BACK AZIMUTH.

TO STATIONS.

DISTANCE.

LOGARITHMS.

° / "

° / "

Meters.

Do not write in this margin.

POST-OFFICE ADDRESS:

C O P Y

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

C. & G. SURVEY,
LIBRARY AND ARCHIVES
JUN 5 - 1912
Acc. No

Department of Commerce and Labor

COAST AND GEODETIC SURVEY

FPB

Washington

November 4, 1911.

No. 18 L.P.S.

Captain J.B. Boutelle,
Assistant, C. & G. Survey,
Commanding Steamer "Endeavor",
Crisfield, Maryland.

S i r :

In reply to your letter of the 28th ultimo, I send you herewith a table of differences between the time of high water at Cod Harbor, Va., and the time at each minute of latitude between that place and Solomons Lump Light.

<u>Latitude</u>	<u>Time of high water</u> <u>later than Cod Harbor</u>	
	<u>h</u>	<u>m</u>
37 48 36 Cod Harbor	0	00
37 49	0	03
37 50	0	09
37 51	0	15
37 52	0	21
37 53	0	26
37 54	0	31
37 55	0	36
37 56	0	41
37 57	0	46
37 58	0	51
37 59	0	56
38 00	1	00
38 01	1	03
38 02	1	07
38 03	1	12

In your letter you did not state where your tide gauge was located. If it is at a place other than Cod Harbor, the above differences may be modified by a constant equal to the difference between the time of high water at the tide gauge and at Cod Harbor.

Respectfully yours,

(Signed) F.W. Perkins.

Acting Superintendent.

3361

STATISTICS

C. & G. SURVEY,
LIBRARY AND ARCHIVES
JUN 5 1912
Acc. No

to accompany Hydrographic Sheet No. 3

Chesapeake Bay, Tangier Island to Kedges Strait

Date	Volume	Letter	Positions	Soundings	Miles	Boat
1911						
Sept. 16	1	A	83	690	21.0	"Endeavor"
28	1	a	63	480	7.5	"Launch 44"
Oct. 2	1	b	77	591	14.0	"
3	2	c	110	946	17.5	"
3	3	c	63	435	10.5	"
4	1	B	160	1192	31.5	"Endeavor"
6	3	d	122	767	19.0	"Launch 44"
11	3	e	62	458	12.5	"
12	3	f	47	415	7.0	"
13	1	C	51	414	11.5	"Endeavor"
13	4	C	115	1050	23.5	"
14	5	g	109	796	15.5	"Launch 44"
16	5	h	157	1141	26.3	"
17	5	j	18	169	3.7	"
17	6	j	120	1246	26.6	"
18	4	D	70	540	13.0	"Endeavor"
19	4	E	95	662	17.3	"
20	7	F	75	580	14.75	"
23	7	G	145	1313	26.75	"
24	7	H	53	484	11.0	"
24	8	H	18	191	4.3	"
25	8	J	50	530	10.5	"
25	6	k	136	1040	25.0	"Launch 44"
25	9	k	37	351	6.0	"
26	9	l	185	2020	35.0	"
26	10	l	29	399	6.0	"
26	8	K	162	1411	33.5	"Endeavor"
27	8	L	25	195	5.5	"
27	11	L	145	1084	28.3	"
27	10	m	198	1876	39.5	"Launch 44"
30	12	n	149	1536	29.0	"
30	11	M	110	1167	23.5	"Endeavor"
31	11	N	13	146	3.0	"
31	13	N	101	1020	20.0	"
31	12	o	56	527	10.0	"Launch 44"
Carried forward -----			3209	27862	609.5	

C. & G. SURVEY,
 LIBRARY AND ARCHIVES
 JUN 5 1912
 Acc. No

Date	Volume	Letter	Positions	Soundings	Miles	Boat
1911	Brought forward	----	3209	27862	609.5	
Nov. 1	13	O	27	228	5.0	"Endeavor"
2	13	P	45	365	9.5	"
3	13	Q	54	426	11.8	"
10	12	P	27	305	6.5	"Launch 44"
10	14	p	50	656	13.0	"
11	14	q	76	883	18.0	"
11	13	R	21	190	4.2	"Endeavor"
11	15	R	38	305	7.2	"
14	15	S	53	568	12.0	"
14	14	r	75	836	18.0	"Launch 44"
14	16	r	25	251	5.0	"
15	16	s	52	640	12.0	"
15	15	T	119	1071	28.0	"Endeavor"
17	15	U	39	328	13.0	"
17	17	U	64	604	14.5	"
17	16	t	123	1529	27.5	"Launch 44"
17	18	t	4	42	.5	"
20	18	u	30	307	4.0	"
20	17	V	38	282	7.2	"Endeavor"
22	17	W	133	951	25.8	"
23	17	X	43	313	6.5	"
23	19	X	57	380	11.0	"
27	19	Y	89	656	17.8	"
27	18	v	119	1285	22.8	"Launch 44"
29	19	Z	110	842	21.0	"Endeavor"
Dec. 1	18	w	71	686	11.5	"Launch 44"
1	19	A'	17	167	3.8	"Endeavor"
2	19	B'	18	136	3.0	"
2	20	B'	65	496	13.4	"
11	21	X	51	549	9.8	"Launch 44"
12	21	y	9	112	2.0	"
13	21	z	75	861	16.2	"
14	20	C'	153	1093	31.5	"Endeavor"
15	20	D'	82	698	19.0	"
15	22	D'	1	15	.2	"
18	22	E'	121	890	24.2	"
19	22	F'	174	1282	40.0	"
Totals -----			5557	49090	1105.9	

U.S.S. "Endeavor"
J. D. Duntley
 Asst. Comdr. U.S.N., Chief Party

VEC
June 11, 1912.

HYDROGRAPHIC SHEET 33 61.

Tangier Island to Kedges Strait, Chesapeake Bay
Virginia, by Asst. J. B. Boutelle in 1911.

TIDES.

	Solomans Lump ft.	Lt. Cod Harbor ft.
Mean low water, or plane of reference on staff	1.6	4.1
Lowest tide observed " "	0.8	2.9
Highest " " " "	4.3	7.5
Mean range of tide	1.7	1.6

Coast and Geodetic Survey

JUN 12 1912

TIDAL DIVISION.

Hydrographic Sheet No. 3361

The positions on this sheet were plotted by the Field Party and were taken as correct. Numerous checks were made, however, to locate lines and when it was thought that errors might exist.

The work is good throughout, the area surveyed well covered and the cross soundings generally good.

The overlap of sheet No. 3313, work of 1911 by same party is generally good but the overlap with sheet No. 2800 work of 1906 does not come good due probably to changes which may have taken place in the intervening six years.

Attention is invited to the fact that sheet #3361 is on a scale of 4000 therefore the plotting was very close and only about $\frac{1}{3}$ soundings could be plotted. It is thought the work could have been better developed had a 2000 scale been used.

J. D. Torrey.

Applied to West 568, 6/17/53 J/S

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