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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. H. Tittmann
Superintendent.

State: Maine

DESCRIPTIVE REPORT.

Hyd. _____ Sheet No. 2965

LOCALITY:

Coast Of Maine

Blue Hill pay

1901

CHIEF OF PARTY:

N. H. Heck, Assistant

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Descriptive Report.
Sheet No. 2965.
1911.

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No regular drag work was done on this sheet, except on Bass Harbor Bar which was also thoroughly sounded over.

A number of ledges were found to have less water than charted, and several slight changes in topography were noted.

Bass Harbor Bar dragged to a depth of 10 1/2 to 11 ft., but owing to the strong tide it passed over in some places after striking. This was noted, and as Mr. Herbert C. Graves, Nautical Expert, informed me that he had last year been informed that a greater depth than charted was reported on the Bar, a thorough examination was made by sounding. This, in connection with the drag work should be regarded as final.

The channel buoy was found to be westward of its charted position and in 18 ft. of water. Consider the channel as divided by a line passing through the buoy normal to the axis of the Bar which was nearly north and south. The north channel has depths of 9 to 11 ft. and while depths of 12 to 13 ft. were found in places between the shoal spots, no channel greater than 11 ft. exists. The south channel has a ridge crossing it with depths of 11 to 13 ft. A depth of 13 ft. was carried the entire width of both channels, indicating that this is the absolute maximum depth. It is very difficult, however, to find a channel with more than 12 ft.

I ran several lines of soundings after developing the Bar, but in every case got a depth of 12 ft., so that should probably be considered the maximum depth.

Staples Ledge was found to be more extensive than charted, with depth of 4 to 5 ft. over an extent of 150 meters.

The rock marked by a bell buoy was found to be dry at the lowest

tides, instead of having six feet as charted. Also a rock in Gasco Passage, charted as 6 1/2 feet and marked by a red spar buoy was found bare at lowest tides.

Note the slight topographic changes in Seal Cove and on N.E. point of Swan's Island. Correct high water line appears on sheet.

10
10
10
10

HYDROGRAPHIC SHEET NUMBER 2965, from Bass Harbor Bar

to Seal Cove.

Scale = 1/20000.

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WORK OF THE WIRE DRAG PARTY DURING THE SEASON OF 1911, from
Aug. 21, 1911, to Oct. 20, 1911.

N.H.Heck, Assistant, Chief of Party.

George Olsen, W.O., Operating Drag No. 1.

M.L.Button, Aid, Operating Drag No. 2.

Officers besides those mentioned above.

H.L.Cotton, Aid.

M.E.Lutz, Aid.

J.A.Daniels, Aid.

G.C.Mattison, Aid.

H.T.Keish, Aid.

TIDE GAUGE AT STONINGTON, MAINE, AND AT SOUTH

BROOKSVILLE, MAINE, ALSO GILKEY HARBOR, MAINE.

At Stonington, Maine on T. Warren's Wharf.

Plane of reference.	Gauge reading	.....	2.7
Lowest tide observed.	" "	.....	1.4
Highest tide observed.	" "	.....	13.1

At South Brooksville, Maine.

Plane of reference.	Gauge reading	.....	1.0
Lowest tide observed.	" "	.....	0.3
Highest tide observed.	" "	.....	14.7

At Gilkey Harbor, Maine.

Plane of reference.	Gauge reading	3.5
Lowest tide observed.	" "	2.7
Highest tide observed.	" "	14.7

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Date 1911	Letter	Volume	Angles	Miles	Drag L'gth	Soundings Number	Angles
Aug. 21	a	1	126	3	500	2	6
Sept. 22	b	1				3	8
23	c	1				3	4
Oct. 20	d	1	12	0		34	68
			138	3		42	86

Total No. of Angles. ----- 224
 " " " Miles. ----- 3
 " " " Soundings. ----- 42
 " Area, sq. mi. ----- 1/2

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Hyd Sheet No. 2965.

Jan 2, 1912.

The work of 1911 at Bassett shows a 9 foot
reminding within the 10 foot dragged area. There
is no explanation given as to why the drag passed
over this shoal

A. L. Simmons

VEC
Nov. 17, 1911

HYDROGRAPHIC SHEET 2965.

Bass Harbor, Maine, by Asst. N.H. Heck, in 1911.

	Stonington	South Brooksville	Ames Cove
	ft.	ft.	ft.
Mean low water, or plane of reference on staff	2.7	1.0	3.5
Lowest tide observed " "	0.3	-2.3	2.7
Highest " " " "	14.9	13.3	14.7
Mean range of tide	9.7	10.5	9.8

~ Tide note for work of 1908 furnished Dec. 22, 1908.

United States Geologic Survey
NOV 17 1911
TIDAL DIVISION

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1908

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Acc. No.

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

C. H. Tittmann
Superintendent.

State: *Maine*

DESCRIPTIVE REPORT.

Hydrographic Sheet No. *2965*

LOCALITY:

*Blue Hill bay, Upper
part of Jericho Bay*

1908

CHIEF OF PARTY:

W. A. Heck

2965

DESCRIPTIVE REPORT.

To accompany Sheet #5, Blue Hill Bay.

The instructions in regard to Wire Drag Work in Blue Hill Bay were to determine the limit of 36 ft. effective depth and to examine shoaler portions and all suspicious soundings.

The entire area covered was dragged to an effective depth of 36 ft. or more, except in a few cases due to errors in preparing the table of pulls, or where the actual tide exceeded the predicted tide. The depths rarely went more than a few tenths of a foot less than 36 ft.

North of Casco Passage, a larger area was examined than contemplated in instructions, in order to give training to inexperienced officers under favorable working conditions. This precaution was proved to be fully warranted.

East of North Pt., Swan's Id., there is an area with extremely strong tide running in all directions, locally known as Devil's Half Acre. Shoals were reported as existing in this locality, and as it was uncertain whether this condition was due to the narrowing of the channel between Placentia and Swan's Id., or to shoals, the area was examined.

A line was carried along the eastern side of the southern portion of the bay to show the limits of 36 ft. effective depth on that side. A line was carried around the shoal known as "The Drums" to find whether or not there existed other shoals in this vicinity.

The number of lobster pots was a serious impediment to work in the southern portion of the bay, accounting for the existence of several splits there. These, however, may be taken up at a later period in connection with other work in this vicinity.

The two most important shoals discovered here were published in "Notice to Mariners", Par. 2340, (7 feet near Pond Id. Passage),; Par. 2560, (10 feet, Crow Id. Ledge).

✓ A shoal covered with a least depth of 23 feet, M.L.W. and surrounded by $7\frac{3}{4}$ fathoms of water. 1340

N.W. Point West Green Id., 670 M. distant, Bearing, 62° (N E \times E $(\frac{3}{8}$ E), Magnetic, ^{1/2}

Great Duck Id., Light, Bearing 112° (E S E $\frac{1}{8}$ E), Magnetic?

A sounding of six fathoms shown on the chart was investigated and found not to exist.

Ship and Barges Beacon, $(285$ M. distant, Bearing 93° (E $\frac{1}{2}$ S) Magnetic. ⁵⁻⁷⁰

Blue Hill Bay Light , Bearing 317° (N W $\frac{1}{8}$ W), Magnetic. ^{n westerly}

A shoal covered by a least depth of 16 feet M.L.W. was found while testing the drag off Dix Point on a foggy day. The position is uncertain on account of the unfavorable conditions. This was examined on a later day resulting in finding a 19^6 ft. sounding. (pos. 16 X, Aug. 15, 1908) ⁵⁻⁸⁰

Dix Point, $(290$ M. distant, Bearing N. N E

Ships and Barges Beacon 260° (W $\frac{7}{8}$ S), Magnetic.

All distances are scaled off from the sheet and bearings are magnetic.

A striped "N" Buoy has been placed to mark the seven feet pinnacle rock found near Pond Id. Passage in Blue Hill Bay.

For the information of the draftsman, tables of pulls are attached to the sheet to be used as follows. Table #1 for 1000 ft. drag used A, B, C, D, E, K, L, (P.M.)⁶ N, & O, days, and for 500

ft. drag used a part of A day.

Table #2 for 540 and 480 ft. drag used on F, day, for 480 ft. drag used on G, H, I, & L, (A. M.) days; for 1000 ft. drag with light weights on P day and for 600 ft. drag on Q, R, S, T, U, V, W, X, days.

Table #3 for 480 ft. drag on Y, & Z days.

In recording buoy angles, one letter only is used to designate each object used, B being used for buoy, the letters R, C and L, for the right, center, or left object named in the position angle. These abbreviations are necessary on account of the limited time at the disposal of the recorder.

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T I D A L D A T A

There are two tide gauges to be used in the reduction for this sheet, viz; Bass Harbor and Mackerel Cove Tide Gauges. Simultaneous observations were made at the two gauges from July 31 to August 12, inclusive.

Bass Harbor T. G. is used for all reductions from July 7 to July 30, inclusive, and the remainder of the work is reduced from Mackerel Cove T. G.

The soundings were made in fathoms and feet but are expressed in feet on the sheet.

Bass Harbor;

Plane of reference corresponds to a reading of 3.4 ft.
on the staff.

Mackerel Cove;

Plane of reference corresponds to a reading of 3.5 ft.
on the staff.

Lowest tide observed	}	Bass Harbor	}	See records
Highest tide observed		Mackerel Cove		at office.

TABLE OF DRAG DEPTHS.

PULL LBS.	LENGTH OF UPRIGHTS		
	60-56 FT.	56-52 FT.	52-48 FT.
100		49.5	45.5
110		48.5	44.5
120	50.5	47.5	43.5
130	49.5	46.5	42.5
140	48.5	45.5	41.5
150	47.5	44.5	40.5
160	46.5	43.5	39.5
170	45.5	42.5	38.5
180	44.5	41.5	37.5
190	43.5	40.5	
200	42.5	39.5	

W
C
O
O
A

NOTE: This Table to be used for the 1000 ft. Drag used on the following days: A, B, C, D, E, K, L (P.M.) M, N, & O & for 500' drag used on A day.

TABLE # 2

TABLE OF DRAG DEPTHS

PULL	LENGTH OF UPRIGHTS		
	60-56	56-52	52-48
LBS.	FT.	FT.	FT.
100		48	44
110		47	43
120	49	46	42
130	48	45	41
140	47	44	40
150	46	43	39
160	45	42	38
170	44	41	37
180	43	40	36
190	42	39	
200	41	38	

NOTE: This Table to be used for the following days:

F day 540' Drag and 480' Drag.

G, H, I & J (A.M.) days 480 Drag.

P day 1000ft. Drag. (Lighter Weights used on this day)

Q, R, S, T, U, V, W, X days 600'ft. drag.

TABLE OF DRAG DEPTHS FOR 480' DRAG

TABLE #3

Pull in pounds

Drag Depth	110	120	130	140	150	160	170	180	190	200	210	220	Drag Depth
47				AD									47
46	BD					AD							46
45		BD					AD						45
44			BD					AD					44
43					BD				AD				43
42	CD					BD					AD		42
41		CD						BD				AD	41
40			CD						BD				40
39	AE				CD						BD		39
38		AE				CD						BD	38
37			AE					CD					37
36					AE					CD			36
35	BE						AE					CD	35
34		BE							AE				34
33				BE							AE		33
32	CE					BE						AE	32
31		CE						BE					31
30			CE								BE		30
29					CE								29
28								CE					28
27		AF										CE	27
26				AF									26
25						AF							25
24	BF											AF	24
23			BF										23
22					BF								22
21									BF				21
20	CF											BF	20
19			CF										19
18								CF					18
17											CF		17

Length of uprights

- AD = 57 - 51 Ft
- BD = 53 - 47 "
- CD = 49 - 43 "
- AE = 44 - 40
- BE = 40 - 36
- CE = 36 - 32
- AF = 32 - 28
- BF = 28 - 24
- CF = 24 - 20

NOTE: This Table to be used for Y & Z days, 480' Drag.

Hyd Sheet Co 2965

Jan 13 '09

Each sounding and its position was
verified and found correct.

The records were well kept.

A. L. Linn