

83
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2831
1906

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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. F. G. Tamm
Superintendent.

State: *Maine*

DESCRIPTIVE REPORT.

Hydro Sheet No. *2831*

LOCALITY:

*Jericho Bay between
Swan Island & Saddle
-back Island*

1906

CHIEF OF PARTY:

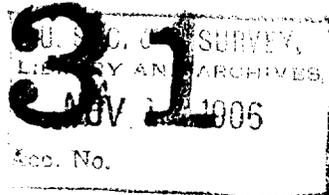
W. H. Deck

U. S. C. & G. SURVEY,
LIBRARY AND ARCHIVES

NOV 12 1906

Acc. No.

Projection No. 2831
Descriptive Report.



The work done on this sheet consists in beginning the examination with wire drag of Jericho Bay, Me.

The survey resulted in the discovery of two uncharted shoals, but the lateness of the season when they were found, prevented the complete development with light drag which should be done under best conditions.

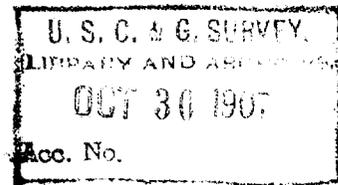
One shoal $3\frac{1}{4}$ mile ESE ^(true) of Whaleback Sledge
Least water shown on chart $9\frac{3}{4}$ fms. Least water found
where drag struck, 30 ft. at M. L. W.

One shoal 1 mile south (true) of Whaleback Sledge.
Least water shown on chart 10 fms. Least water found
where drag struck, 33 ft. at M. L. W.

The position of a new bell buoy $\frac{1}{3}$ mile WSW
of Egg Rock Beacon is shown on the smooth projection.

The increase of shipping in this vicinity due
to the development of the granite industry, renders
the continuation of this work very desirable, especially
in Merchants' Row.

2831



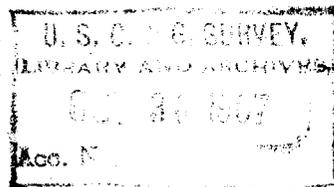
DESCRIPTIVE REPORT.

Hyd. Sheet #2831, Jericho Bay, Maine.

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

DESCRIPTIVE REPORT.

SHEET NO. 2831



Submitted by N. H. Hec: Assistant C. & G. Survey.

The work on this sheet continues that begun last year and covers the area in Jericho Bay between Spirit Ledge and Egge-moggin Reach. An investigation of the lines on this sheet shows the difficulty of the work. Approximately 1500 lobster pots were removed from this area so that the entire area could be covered. No effort was spared to show the possibilities of the Wire Drag work under the most severe conditions.

The lengths of drag varied from 1400ft., used to determine the practicability of operating a drag of this length, to 500ft. Owing to the small amount of open area and the large number of uncharted shoals it was found that the use of a 600ft drag with three launches and 500ft drag with two launches gave the best results.

The attention of the draftsman is called to the fact that a blue border was placed at close of last season around the area dragged at that time. There was difficulty in removing this in the direction in which the work was extended. It is recommended that such a border should be placed only on the finished sheet.

Considering the results of this work with regard to navigation attention is called to those of the 28 shoals discovered which affect important channels.

Entering from seaward the only channel completely dragged was that between Blue Hill Rock and Spirit Ledge. An uncharted 35ft shoal was found 1/4 of a mile West of Spirit Ledge, and a 25ft shoal 1/4 of a mile South West from Blue Hill Rock. (The depths of shoals are given in feet at Mean Low Water, and all bearings are magnetic). Between this point and Halibut Rock there is a dangerous 16 1/2 ft shoal 1/2 mile South South

West of Halibut Rock Beacon. The channel at this point is narrow for deep draft vessels.

It should be mentioned that an investigation was made at Torrey's Ledge which resulted in finding a depth of 19ft.

Two passages between Southern Mark Island and West Halibut Rock were examined with the result that a 32ft shoal was found in the middle of the easternmost, and the Western channel was found to be clear of shoals having less depth than 36ft.

Between Southern Mark Island and North Poppelstone Ledge two shoals, 26 & 33ft respectfully, were found, thus blocking the entrance to Merchant's Row for deep draught vessels. In Merchant's Row a dangerous 4 1/2ft shoal was found near Bill's Island, known locally as Leach or Gold Hunter's Rock. Several small vessels have been wrecked on this.

A 30ft shoal was found 1/2 mile E. S. E. of Whaleback Ledge. The Eastern entrance to Deer Island Thorofare was examined. In the channel between Dumpling Island and Lazygut Island two shoals, 19 1/2 & 24ft. respectfully, were found.

A special examination was made in Deer Island Thorofare between Bold Island and Grog Island with a result that the 8ft shoal shown on chart was found to extend slightly further toward Grog Island than indicated.

The shoal E. of Woodberry Ledge was found to extend further to Eastward than charted. A 29ft ^{spot} being found where the chart showed 8 1/2 fathoms. ~~only~~. To the Eastward of Green Island Ledge black buoy a 26 1/2ft shoal was found.

All soundings, reductions, and effective depths are to be found in the record of the guiding launch #1.

It is to be noted that several uncharted shoals having a greater depth than 36ft were found. This is due to various causes such as the increase in length of a small upright due to an accidental unhooking of snap hook; the operation of drag at lower pull than that required; the catching of a lobster pot on drag

#3.

on the rocks; and probably in other cases the kelp or other growth on the shoals.

In figuring the overlap of lines a thorough consideration of the relation between the path of the ends of the drag and the paths of the launches is necessary. When the launches are at full distance the necessary overlap is about forty meters. When the launches are close together the end of the drag is outside of the launch. These considerations have been given careful attention and in all cases of doubt the area has been covered the second time.

PLANE TABLE POSITIONS.

Hyd. Sheet #2831

Object. and description.	Lat.	D.M.	Long.	D.P.	Height	Remarks.
Bart, Barters Id. Ledge Spin.	44° 10'	256	68° 38'	203	-	Cage.
Round, Flag pole on Round Id.	44° 10'	803	68° 37'	812	-	

Sheet 2831 Joncho Bay Me.

Within the limits of the survey the drag went over all the ground except the few spots shown in blue tint, where lobster pots interfered.

The notes in records mention the striking of the drag and the parting of the drag. Whether the drag parted by striking the bottom or from some other cause is not stated.

The track of the drag could be followed with more certainty if all three boats were located, and positions numbered at the same time.

Two soundings are located on sheet, left in pencils, from notes in Descriptive Report. The position of these soundings have been plotted on sheet 1407 and standard chart 104. in pencil.

One sounding 13½ feet pos. 12, 2 day is plotted on sheet 1400^a in pencil. This sounding

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Diag. Cht. No. 1302

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1907

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. Tullmann
Superintendent.

State: *Maine*

DESCRIPTIVE REPORT.

Hyd^c Sheet No. *2831*

LOCALITY:

Jericho Bay

1907

CHIEF OF PARTY:

N. H. Hester

U. S. COAST AND GEODETIC SURVEY
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OCT 30 1907
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Sheet 2831

is already located on Standard Chart
104 as 13 feet.

A part of "B" day from ~~Page~~ position
1 to position 42 Launch no. 1 - 43 Launch no. 2 & 35 Launch
no. 3. is without recorded depth of drag.

Two soundings of $5 + 4\frac{1}{2}$ fathoms, pro. end
of C Day Launch 2 plots on shoal south part
of Barter's Id. ~~Spindle~~ Ledges. The name Barter's
Id Ledges does not appear on chart 104, but
is given in Coast Pilot.

Nov 26" 1906

J. C. Dorn.

Hyd Sheet No 2831

Dec. 30, 1907,

In Asst. Asst. Heek's descriptive report of 1906, on this work, he states that two uncharted shoals were found - one, having a depth of 30 feet, $\frac{3}{4}$ mi. E.S.E. of Whaleback Ledge and a 33 ft shoal 1 mi. south of Whaleback Ledge. These shoals are not mentioned in the sounding records of 1906.

In the work of 1907 a 30 ft shoal was found about $\frac{3}{4}$ mi. E.S.E. of Whaleback Ledge which is no doubt the one mentioned in the descriptive report but no shoal of 33 feet, 1 mi. south of the ledges, was found in the year's work.

H. L. S. S. S.

The explanation of the above is that during the season of 1906 I kept a record of the depth of each shoal with the number of its position, in order to check the inexperienced recorder.

This was compared with the records at the close of the season, except in this sheet, where the two soundings were overlooked. One of them was examined again in 1907, but the other was not. The 33 foot shoal exists, but the last sounding did not appear on the records. It should be remembered that during the season of 1906, the Star Breeze was expected to examine all shoals from N. 4. 12. 11.

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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

Superintendent.

State: *Maine*

DESCRIPTIVE REPORT.

Hyd Sheet No. *2831*

LOCALITY:

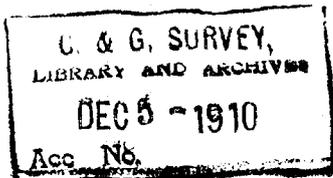
New Island Thorotare

1910

CHIEF OF PARTY:

N. H. Steck

2831



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DESCRIPTIVE REPORT HYD. SHEET 2831

Season of 1910

Wire Drag Party- Chief of party- N. H. Heck, Assistant

Several shoals were found during the present season- special investigation s made by sounding when wire drag work was impracticable. As they were few in number they were plotted on this sheet.

An examination was made near Grog Id. in Deer Id. Thoroughfare. The principal result was the finding of a pinnacle or boulder with 8 1/2 ft/ on it. almost in mid channel where the charts previously showed 12 ft.

On Roebuck ledge a depth of 1 1/2 ft was found where 3 ft. was previously charted.

The ledge near Eastern Mark Id. was developed. This has been previously reported.

Several boulders with 2 ~~12~~ 1/2 and 4 12 ft respectively were found NW'ly from Long Ledge Beacon.

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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. H. Tittmann
Superintendent.

State: Maine

DESCRIPTIVE REPORT.

Hyd Sheet No. 2831

LOCALITY:

Coast of Maine

Jerico Bay

1901

CHIEF OF PARTY:

N. H. Heck, Assistant

2831

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Descriptive Report to accompany Sheet No. 2831.

C. & G. SURVEY, LIBRARY AND ARCHIVES NOV 10 1911 Acc. No.
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1911.

The dragging on this sheet was done for the purpose of covering areas in the channels previously not completed and also to examine as much as practicable of the channel between Swans Island and Marshalls Island.

The dragging includes Jericho Bay, south end; Deer Isle Thorofare, eastern end; Merchants Row, eastern end; and channel between Swans Island and Marshalls Island.

Jericho Bay.

The ridge from Southern Mark to Halibut Rock Beacon was dragged.

Less depth than charted was found over a shoal area to ENE of Southern Mark Island, depth 17-25 over an area 750 meters long and 300 meters wide.

A shoal with depth 29--31 ft., 1250 meters in diameter lies 530 meters westerly from West Halibut Rock.

A least depth of 20 ft. was found on a charted $3\frac{1}{2}$ fathom spot, between West Halibut Rock and Halibut Rock Beacon.

A depth of 26 ft. was found about 800 meters south of the southerly end of Southern Mark Island.

A shoal was found to extend southwesterly from Southern Mark Island with depths of 12 and 20 ft. at distances of 150 and 250 meters respectively from the island.

A depth of 28 ft. was found about 400 meters southeasterly from Whaleback Ledge where $5\frac{3}{4}$ fathoms was charted.

The ridge northerly from Woodbury Ledge was found to extend farther north than charted with 26 ft. 300 meters from the buoy.

A kelp ledge with 10 ft. was found 300 meters easterly from the northerly end of Phoebe's Island.

Depths less than charted were found in the ridge running south from Egg Rock, chiefly boulders as follows; 23 ft., 500 meters southwesterly, and 19 ft., 600 meters in the same direction, also 23 ft., 1050 meters south-southwesterly.

A shoal with $8\frac{1}{2}$ ft. least depth was found 1130 meters E by S from Long Ledge Beacon, where 11 ft. was charted, and there is 27 ft., 400 meters southeasterly from it.

Merchants Row.

A shoal with 17-20 ft. was found 1150 meters southeasterly from Parter's Island Ledge Spindle where the chart showed $3\frac{1}{2}$ fathoms, and 20 ft. 1830 meters SE by E from the same spindle.

A depth of 25 ft. was found northeasterly from Middle Ledge, 500 meters where 7 fathoms was charted.

A shoal with 15 ft. least depth, 350 meters SSW from Colby's Ledge Spindle where the chart shows $3\frac{1}{4}$ fathoms.

Deer Isle Thorofare.

A ledge having 1 ft. was found opposite S-9 where the chart showed 2 ft. Directly east of this, a half tide ledge having 4 ft. was found. This is apparently charted but as it comes under the letter "N" in the name of channel it is not distinct.

A boulder with 14 ft. least depth was found in mid-channel 375 meters from easterly end of Russ Island.

The 1 ft. shoal charted south of the ledge on the north side of channel opposite Camp Island, was proved not to exist, a least depth of 26 ft. being found on its position, but an 11 ft. shoal was found a little easterly from this where the chart showed 4 1/2 fathoms.

An 18 ft. boulder was found 170 meters southeasterly from the southeasterly point of Gray Island.

An obstruction with 20 ft. was found in mid-channel 230 meters north from S-5.

Directly south of S-5, the ledge was found to have 1 ft. instead of being depth of 6 ft.

A shoal with 17 ft. lies 375 meters ESE from Haskell's Ledge.

16 ft. was found instead of 17, easterly from Eastern Mark Island Ledge.

A least depth of 13 ft. was found where 18 ft. was previously charted 875 meters E by S from Eastern Mark Island Ledge.

On opposite side of channel 350 meters NE from last named ledge 21 ft. was found where 24 was previously charted.

All the buoys were located, and their positions are shown on the smooth sheet.

In the channel between Saddleback Island and Shingle Island the shoal marked by S-~~1~~ was found to extend farther to the westward than charted, with 10 1/2 ft., 300 meters and 21 ft., 430 meters southwesterly from dry ledge nearest to buoy.

Channel between Swans and Marshall's Island,

An extension of Hat Island Ledge to the westward was found with 11 ft. 700 meters WNW from the westerly end of island where 5 fathoms was charted.

Depths of 28-30 ft. were found on Hat Island Bar between buoys S-1, and S-2.

A 34 ft. pinnacle was found 850 meters NNE from the northerly end of Ringtown Island, and a 37 ft. pinnacle 80 meters NW from the northerly end of Brimstone Island.

The dragging of this channel was not completed.

All distances are in meters and are approximate. All depths are in feet at mean low water. All bearings are magnetic.

MAINE.
Deer Isle Thorofare.

2831

N. H. Heck, 1911.

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NOV 10 1911
Acc. No.

PLANE TABLE POSITIONS.

Object and Description.	Lat.	D.M.	Long.	D.P.	Remarks.
Haycock Spindle "HAY"	44°10'	255	68°35'	465	
Rock Pile on Buckmasters Neck. "ROCK"	44°10'	953	68°38'	620	Top.

VEC
Nov. 17, 1911

HYDROGRAPHIC SHEET 2831.

Jerico Bay, Maine, by Assistant N. H. Heck,
in 1911.

TIDES.

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

Tide note for years 1906 & 1907, furnished Nov. 21, 1907
" " " year 1910 " Feb. 28, 1911
" " " " 1911 " Nov. 17, 1911

~~Coast and Geodetic Survey~~
NOV 17 1911
TIDAL DIVISION.

2831

DEPARTMENT OF COMMERCE AND LABOR

COAST AND GEODETIC SURVEY

O. H. TITTMANN & SUPERINTENDANT

H 2831

Coast of Maine,

Jericho Bay

By Wire Drag Party

N. H. Heck, Ass't., Chief of Party

Begun July 19

Ended October 15

1906 - 1907

Scale 1/20000

Plotted by Wm. Sanger, C.C.

2831

V.E.C.
Nov. 21, 1907.

HYDROGRAPHIC SHEET NO. 2831.

Jerico Bay, Maine, by Assistant N. H. Heck in 1906-07.

TIDES.

	Stonington Staff of 1907	Brooklin Staff of 1907	Burnt Coat Harbor Staff of 1907
Mean low water, or plane of reference on staff	1.8 ft.	3.2 ft.	1.7 ft.
Lowest tide observed " "	0.0 "	0.8 "	0.1 "
Highest " " " "	13.9 "	14.9 "	12.6 "
Mean range of tides	9.9 "	9.9 "	9.6 "

Applied. A. Ege 11/26-07.

Coast and Geodetic Survey

NOV 22 1907

TIDAL DIVISION.

Jerico Bay, Maine, by Asst. N. H. Heck in 1910.

	Stonington Staff of 1910
Mean low water, or plane of reference on staff	ft. 2.0
Lowest tide observed " "	-0.3
Highest " " " "	14.2
Mean range of tide	9.7

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U. S. C. & G. SURVEY,
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NOV 14 1906
Acc. No.

Projection No. 6,
showing area covered by
Wire Drag Party,
in charge of
N. H. Heck, Aid. C. & G. S.,
in Jericho Bay, Maine
between ^{Sween Island and Long Saddle Bank} ~~Hay Island and Hobbet Rock~~ Maine
from Oct. 4. to Oct. 30, 1906.

Scale $\frac{1}{20,000}$.

N. H. Heck, Aid. Chief of Party, in charge of launch 2.
Geo. Olsen, W.O. in charge of launch 1.
J. A. Berry, Mate, in charge of launch 3.
J. B. Bingham, Aid, Draughtsman and in charge of launch 3.
N. M. Perrins, Aid, recorder, observer and draughtsman.
A. B. Richardson, Hand, recorder and observer.
H. W. Ryder, Hand, recorder and observer.
H. H. Brown, Hand, recorder, observer and coxswain.
A. H. Eaton, Hand, coxswain.
Eugene Eaton, Hand, coxswain.
J. B. Merchant, Hand, coxswain and tending line.
John Spimney, Hand, tending drag.
Wm. Jones, Hand, tending line.
Sam Spimney, Hand, tending line.
W. J. Weed, Hand, tending line.

R.L. Smith, Hand, Tide observer.
Howard Ware, Hand, Tide observer.

Statistics of field work,
done by Wire Drag Party,
Oct. 4, to Oct. 30, 1906.

Date. Oct. 1906.	Length of Drag	Miles Run Nautical.	No. of Angles Lantern #1.	No. of Angles Lantern #2.	No. of Angles Lantern #3.	Day.
4.	600'	1 $\frac{3}{4}$	40	46	44	A
11.	1000' 600'	8 $\frac{1}{4}$	156	138	120	B
12.	600'	1 $\frac{3}{4}$	38	34	34	C
13.	200'	2	10		24	D
19.	600'	2	54	54	58	E
22.	500'	2 $\frac{3}{4}$	93	50		F
23.	1000'	1 $\frac{3}{4}$	44	74	44	G
24.	1000'	10 $\frac{1}{4}$	182	180	178	H
26.	1000'	8 $\frac{1}{2}$	144	148	146	J
27.	1000'	6 $\frac{1}{2}$	126	108	130	K
30.	1000'	6	112	98	102	L
		51 $\frac{1}{2}$	999	908	880	

Area covered, 5 $\frac{1}{2}$ sq. mi.

all area between lines not covered is due to
great number of lobster pots. This can be covered in
a day in the early part of the season when no
lobster pots are found.

Statistics of Field Work, Sheet #6.

Date 1907	Letter	Vol	Launch				Sounds.	Miles	Length of drag
			#1 Angles	#2 Angles	#3 Angles	#4 Angles			
July 19	A	1	118	140	164	-	1	4 1/3	500
" 20	B	1	72	78	78	-	0	5	600
" 22	C	1	158	192	176	-	1	9	600
" 24	D	1	124	0	126	-	0	5 1/4	480
" 27	E	1	50	26	54	-	0	3 1/2	600
" 29	F	1	190	188	178	-	0	7 2/3	600
" 30	G	2	104	0	78	-	0	3 1/4	600
Aug. 5	H	2	140	58	128	-	0	6	600
" 6	J	2	6	0	0	-	5	0	0
" 7	K	2	148	122	106	-	7	5	600
" 8	L	2	108	102	98	-	0	4 3/4	600
" 9	M	2	170	154	112	-	2	7	600
" 10	N	3	76	70	62	-	0	3 1/2	600
" 12	O	3	78	72	62	-	0	3 1/4	600
" 15	P	3	216	96	160	-	1	9 1/4	(600) (480)
" 16	Q	3	240	212	196	-	2	10 3/4	600
" 20	R	3	66	60	56	-	3	3	1400
" 22	S	4	152	136	102	-	6	7	1000
" 3	T	4	78	80	72	-	0	4 1/4	1000
" 26	U	4	136	130	128	-	0	6 1/2	1000
" 28	V	4	94	94	98	-	0	4 1/2	600
" 29	W	4	164	132	148	-	1	10	600
Carried forward			2688	2142	2382	-	29	122 5/12	

Statistics of Field Work, Sheet #6 (cont.)

Date	Letter	Vol	Launch				Sounds	Miles	Length of drag
			#1 Angles	#2 Angles	#3 Angles	#4 Angles			
1907	Brought	2688					29	122 5/12	-
Aug 30	X	5	212	186	200	-	0	10 1/4	600
Sept 7	Y	5	116	98	104	-	2	5	600
" 9	Z	5	106	0	90	-	3	4	480
" 10	A'	5	96	0	45	-	0	4 1/2	480
" 12	B'	5	88	46	26	-	0	4 1/2	480
" 13	C'	6	142	140	140	-	0	5	600
" 14	D'	6	96	88	94	-	1	5 1/4	600
" 18	E'	6	256	190	0	-	1	12	480
" 19	F'	7	36	0	26	-	1	1/4	600
" 20	G'	7	148	106	108	-	2	5	600
" 26	H'	7	74	0	58	-	1	4	480
" 27	J'	7	18	8	12	-	1	3/4	600
Oct 2	K'	8	72	0	40	0	1	2 1/4	480
" 3	L'	8	172	140	128	114	1	13	(480) 480
" 5	M'	8	124	126	94	104	1	10 1/4	(480) 480
" 10	N'	8	194	192	154	150	3	11 3/4	(480) 480
" 11	O'	9	0	270	1	204	1	9	480
" 12	P'	9	124	58	90	50	0	7 1/4	(480) 480
" 15	Q'	9	62	0	48	0	0	3 1/2	480
Total			4824	3790	3840	622	48	239 11/12	

Statistics of Field Work.

Total for sheet # 6.

Angles	13076
Miles of drag	239 11/12
Soundings	48
Area dragged (sq. miles)	18

No uncharted shoals 28

Hyd. Sheet 2831
Scale 1/20,000

Area discovered in season of 1911

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C. & G. S. Co. - Y

LIBRARY OF THE U.S. GEOLOGICAL SURVEY

NOV 10 1911

C. No.

by Wire Drag Party in Jerico Bay and Deer Island Thoro fare

N. H. Heck, Assistant, Chief of Party

Geo. Olsen, W. O. in charge drag no. 1

D. M. Kyle, Aid " " " " 2

Officers in charge of end launches, second officers guiding launches
and drafting

M. L. Button, Aid

H. A. Cotton "

M. E. Lutz "

J. A. Daniels "

G. C. Mattison "

H. T. Kelsh D. O.

Tides

Stonington, Me. T. Warren and Co's wharf

Mean Low water , height on staff	2.7 ft
Highest tide observed	13.1
Lowest tide observed	1.4

Statistics Hyd. sheet 2831

Drag no. 1

Date	Letter	Vol.	Angles	Miles	Drag Length feet	Soundings		
						No.	Angles	
1911								
June 15	a	1	72	1 1/4	400	2	8	
16	b	1	126	4 1/4	400	1	10	
21	c	1	60	2	500	5	10	
23	d	1	138	4	400	5	10	
30	e	1	30	1/4	400	0	0	
July 15	f					3	6	
18	g	1	66	1 1/2	500	5	10	
19	h	1	168	3 1/4	2000	4	8	
20	j	1	240	3	1500	7	14	
21	k	2	240	3 1/2	1200	7	14	
24	l	2	164	1 1/2	600	2	4	
25	m	2	84	1 1/2	1500	1	2	
26	n	2	168	2 1/2	1200	0	0	
Aug. 12	p	2	198	5	1200	6	14	
14	q	3	246	5	1200	2	4	
15	r	3	236	5	1000	2	4	
17	s	3	312	6	600	2	2	
23	t	3	264	5 1/2	1200	1	2	
25	u	4	192	4	1000	5	10	
29	v	4	102	2 3/4	600	0	0	
30	w	4	228	3 1/4	1000	1	2	
Oct 2	x					1	2	
Totals 3284				75 1/2		62	138	

Drag 2

July 20	j	1	276	4	1500	4	8
24	l	1					
25	m	1	30	1/2	1750	2	4
26	n	1	234	3	1750	5	10
Aug. 2	n'					1	2
4	e	1	210	4 1/4	1750	4	12
5	p	2	78	1 1/4	1750	1	2
828				21.		17	38

Total angles 4288
 miles 96 1/2
 soundings 79
 sq. miles 11

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PLANE TABLE POSITIONS.

<u>Object, and description.</u>	<u>Lat.</u>	<u>D.M.</u>	<u>Long.</u>	<u>D.P.</u>	<u>Remarks.</u>
Bart, Barters Id. Ledge Spin.	44°10'	256	68°38'	203	Cage.
Round, Flag pole on Round Id.	44°10'	803	68°37'	812	