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Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: *Maine & N. B.*
Canada.

11-5613

DESCRIPTIVE REPORT.

Hyd. Sheet No. *4031*

LOCALITY:

Coast of Maine
Approaches to
Passamaquoddy Bay
Maine, New Brunswick
Canada -

1918

CHIEF OF PARTY:

J. H. Harley

W

DESCRIPTIVE REPORT **4031**
to accompany
Hydrographic Sheet No. 1 (field number)

The work on this sheet shows the wire drag survey of Head Harbor Passage, Friar Roads and Western Passage south of Kendall Head, made by Wire Drag Party No. 2 from June to September, 1918.

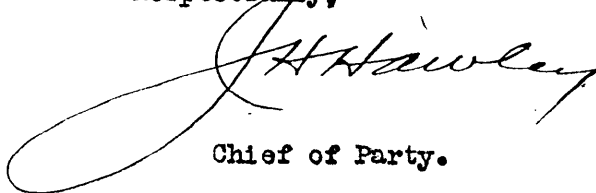
The work connects with that on sheet No. 3 in Grand Manan Channel and with that on sheet No. 2, Passamaquoddy Bay and the northern part of Western Passage, forming with the other work a continuous dragged area from Grand Manan Channel to Passamaquoddy Bay

The standard color scheme was used to show effective drag depths on this sheet.

The work was done from Eastport, Maine and an automatic tide gauge was maintained at that place for the reduction of the work.

The sheet is complete except that the effective drag depths on K day are not shown. No tidal observations were obtained on that day and it will be necessary to obtain tidal readings from the automatic tide gauge record.

Respectfully,

A large, stylized handwritten signature in cursive script, appearing to read "J. H. Hawley". The signature is written in dark ink and is positioned above the typed name "Chief of Party".

Chief of Party.

TABLE OF STATISTICS

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HYDROGRAPHIC SHEET NUMBER 1

Day	Date	Vol.	Positions	Soundings	Draglength	Miles
A	June 6, 1918	1	6	1	1500	.5
B	" 14 "	1	67	2	1500 1800	8.5
C	" 15 "	1	58	0	1500	6.2
D	" 17 "	1	52	1	1500	6.6
E	" 18 "	1	83	0	1500 1800	10.5
F	" 19 "	2	33	0	1200	2.5
G	" 20 "	2	50	0	2400	4.5
H	" 21 "	2	38	1	2400	3.2
J	" 24 "	2	11	1	1500	.8
K	July 16 "	2	49	3	1800	3.3
L	" 20 "	2	20	0	1500	2.0
M	Aug. 30 "	3	53	2	1500 1800	4.0
N	Sept. 4 "	3	75	1	1800	5.7
O	" 5 "	3	70	0	1500	6.3
P	" 7 "	3	101	4	1200 1500	7.1
Q	" 9 "	4	99	3	1500	8.1
R	" 10 "	4	50	0	1200	3.7
S	" 12 "	4	52	1	1200	3.0
T	" 13 "	4	42	1	1200	3.0
U	" 14 "	4	8	0	1200	0.8
V	" 16 "	5	19	0	1200	1.5
			1036	21		91.8

LIST OF SIGNALS ON WIRE DRAG SHEET NO. 1 (field number)

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Hydrographic Name	How located, etc.
Vil	Leonardville Hbr. Lt. J.H.H., 1918.
In	Indian Hill 2, J.H.H., 1918.
Deer	Deer I. S. end Ho. Chy., 1913.
Cum	Cumming, 1893.
Ant	Pleasant Pt. Church spire, 1860.
Low	Carlow I. chy, 1893
Ken	Kendall 2, 1893.
Red	J.H.H., 1918.
Clark	Clark Ledge beacon, 1913
Sig	Weather Bureau signal pole, 1913.
Stan	Eastport standpipe, 1910.
Con	" Congregational Ch. sp. 1910
Tar	" Unitarian ch. sp. 1910
Salt	" Salt wks. brick chy. 1913
Sel	" Selwood factory stack, 1913
Nor	North Lubec hotel chy. 1913
Cop	Cooper, J.H.H., 1918
Ram	Hydro. sig. see angle book.
Mill	Plaster mill chy. 1860
Pip	Lubec standpipe, 1910
Bec	Lubec church spire, 1861
Tat	Treat 2, 1893
Mil	Lubec Harrows Lt., 1910
Lon	Frairs Hd. pavilion, 1866
Bac	Raccoon, Hill, 1860
Ren	J.H.H., 1918
Chim	J.H.H., 1918.
Bad	Hydro. sig., see angle book
Good	" " " " "
Qnod	East Qnoddy Lt., 1860
Han	Hannabury, 1861
San	Sand reef spindle located by sextant and theod. cuts.
And	J.H.H., 1918.
Tin	J.H.H., 1918.

ADDRESS THE SUPERINTENDENT
U. S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 41-ACC

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON May 12, 1919.

HYDROGRAPHY ETC., (HT)

CHARTS (H)

FIELD RECORDS (C)



Division of Hydrography and Topography: *HCG*

Division of Charts:

Tidal reductions have been approved in
6 volumes of Wire Drag and Sounding records for

HYDROGRAPHIC SHEET 4031

Approaches to Passamaquoddy Bay, Maine and New Brunswick.
J. H. Hawley in 1918.

Plane of reference is
Mean low water, reading

5.5 ft. on staff No. 1 at Eastport, Maine.
7.2 ft. on staff No. 2 at Eastport, Maine.

A handwritten signature in cursive script, appearing to read "R. H. Rice".

Chief, Section of Tides
and Currents.

E.P.E.

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 4-DEM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

October 15, 1924.

SECTION OF FIELD RECORDS

Report on Wire Drag Sheet No. H-4031

Approaches to Passamaquoddy Bay, Maine and Canada.

Surveyed in 1918

Instructions dated May 23, 1918.

Chief of Party, J. H. Hawley.

Surveyed by Wire Drag Party No. 2.

Protracted and inked by S. M. Ferguson.

Verified and Area and Depth Sheet by A. L. Shalowitz.

Traced by H. R. Edmonston.

1. As this work was of a confidential nature, no written instructions as to depth and extent of dragging were issued, but verbal information was furnished by the Chief of the Division of Hydrography and Topography to the Chief of Party. It is therefore assumed that the work was prosecuted in full accord with these instructions. However, it appears that in Johnson Bay just west of the town of Lubec, the deeper drag should have been carried closer to the 17 foot shoal since this area is no doubt used as an anchorage which would make it especially desirable to extend the deeper area as far as possible. The present effective depths in the area mentioned range from 13 to 15 feet. There is also a very narrow strip northwest of the town of Lubec which was only dragged to 14 feet.
2. A clearance depth was obtained over all shoals discovered except as follows:
 - (a) In $44^{\circ} 52'$, $66^{\circ} 59'$, the N buoy which was set at 27 feet effective grounded. This grounding appears to be in general depths corresponding to the depth of grounding and hence need not be dragged over.
 - (b) The 18 and 32 foot soundings in approximately $44^{\circ} 53 \frac{1}{2}'$, $67^{\circ} 01 \frac{1}{4}'$ should both be dragged over. A large split in the work occurs here. Deeper water surrounds the 32 foot spot and it is also possible that the 18 is a detached spot.

(c) The 28 foot sounding just outside the limits of the drag in latitude $44^{\circ} 54'$, longitude $67^{\circ} 01'$ should be dragged over whenever work is resumed here.

(d) The 15 and 22 foot soundings north of Treat Island in latitude $44^{\circ} 53'$, longitude $66^{\circ} 59 \frac{1}{2}'$ have not been covered.

(e) The 31 foot sounding (grounding depth) in $44^{\circ} 54'$, $66^{\circ} 57 \frac{1}{2}'$ has not been dragged over. A split in the work occurs here, which should be covered.

(f) The 23, 30 and 31 foot soundings in latitude $44^{\circ} 55'$, longitude $66^{\circ} 57'$ have not been cleared. These lie along the limits of the drag. It is possible that less water exists here which might prove menacing to boats entering Harbor de Loutre from the southward.

(g) The 42 foot sounding in latitude $44^{\circ} 54 \frac{1}{2}'$, longitude $67 \frac{1}{2}^{\circ}$ was not covered. There seems to be no indication here of a dangerous shoal. However, this spot should be covered whenever work is extended into Johnson Cove.

(h) The 45 foot sounding in latitude $44^{\circ} 56 \frac{1}{2}'$, longitude $67^{\circ} 00'$ has not been covered. There are shoaler depths charted in this same vicinity so no dragging will have to be done over this spot except to cover the split in the work.

(i) The 33 foot sounding in latitude $44^{\circ} 56'$, longitude $66^{\circ} 59 \frac{1}{2}'$ should be dragged over. There is deeper water inside, so that the 33 may not be the shoalest depth here.

(j) The 28 foot sounding outside the limits of the drag in latitude $44^{\circ} 56 \frac{1}{2}'$, longitude $66^{\circ} 57'$ lies on a charted shoal of less depth. Hence no dragging is necessary over this.

3. There are numerous places of insufficient overlap within the sheet. These are clearly shown on the Area and Depth sheet. The overlap with H. 4028 is sufficient. This is shown on H. 4028. The junction with H. 4027 will be taken up in the review of that sheet.
4. There are several splits on this sheet and are shown on the Area and Depth sheet. These should be covered when work is done here in the future, especially where groundings occurred as noted in paragraph 2.
5. While the effective depths of the areas dragged in the main channels are sufficient for surface navigation, it is to be noted that it would hardly be considered adequate for submarine use. It would appear from a mere physical inspection of the chart that it would be particularly desirable to insure a safe submarine passage from the ocean into

Passamaquoddy Bay, which would naturally be through Head Harbor Passage and Western Passage where the charted depths through the middle of the channel are 100 feet and over. The effective drag depths in these places range from 45 to 52 feet.

There are a number of places within the limits of this sheet where the drag should be extended closer inshore. These can best be seen by reference to chart 801 (Field Records Section File) that shows the limits of the drag work on this sheet.

6. Attention is called to the fact that the 47 foot sounding in Friar Roads east of Buckman Head (approximately latitude $44^{\circ} 54'$, longitude $66^{\circ} 59'$) should be shifted on the charts 200 meters to the northward to correspond to the position of the sounding as now plotted on the smooth sheet. The old plotting was due to an incomplete note in the sounding record which has now been corrected by the Chief of Party. (See sounding record, Vol. 1, page 1).
7. The verification of this sheet disclosed the following:
 - (a) On the strip from 35 C to 58 C the tidal curves were not joined with corresponding end and guide launch positions. Since the error was in the direction of safety, they were not changed.
 - (b) The strip from 36 P to 47 P did not follow the rule of 40. But as the difference between adjacent uprights did not greatly exceed the limit, the strip was not changed.
 - (c) The positions only of K day were plotted by the field party. The completion of this day's work was held up for tidal observations. The inking and the subdivision of the area for this day was done by the verifier.
8. There is no verification report for this sheet, the substance having been incorporated in this review.
9. Reviewed by A. L. Shalowitz, October, 1924.