4032
4032a.

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

State: Maine

11—5613

DESCRIPTIVE REPORT.

Hyd. Sheet No. 4032 4032 A

LOCALITY:

Approaches to Machias Bay

1919

CHIEF OF PARTY:

J. H. Hawley

4032 A 4032

DESCRIPTIVE REPORT.
to accompany
Hydrographic Sheets Nos. 4032 & 4032a

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Sheet No. 4032.

On this sheet is shown the wire drag survey of the approaches to Machias Bay in Eastern Maine, executed by Wire Drag Party No. 2 during September, October and November, 1918, in accordance with instructions dated September 11, 1918.

The work extends in a strip about 5 miles wide from Libby Islands westward to a point due south of Black Rock. The northern limit of the work passes close to the shoreline in the vicinity of Moose Peak L.H.

No shoals dangerous to surface navigation were found in this area. All changes in charted depths that were found, were reported before the end of the season. These changes are shown on the sheet in feet at mean low water.

Tidal observations for the reduction of the work were obtained on a gauge at Jonesport, Maine.

Sheet No. 4032a.

This sheet is a tracing of the projection of Sheet No. 4032, on which are shown the supplemental soundings obtained during the course of the drag work, in accordance with supplemental instructions dated September 12, 1918.

These soundings are shown in fathoms at mean low water. The shoals discovered with the drag are also shown on this sheet. They are shown in fathoms, with red ink, and are surrounded by black circles.

The supplemental soundings were obtained from the tender which sounded at certain buoys as directed, when the drag was under way, and recorded the depth, time, and number of the buoy at which the sounding was obtained. All soundings were obtained by means of vertical casts, using stranded sounding wire, an 8 or 12 pound lead, a registering sheave, and an improvised reel.

Data in regard to the supplemental soundings is recorded in the smooth sounding record. Opposite each sounding is shown, by comparison with the wire drag record, the position of the buoy at which the sounding was obtained. Thus on A day, the first sounding was obtained at N buoy at the time when this buoy had traversed one-quarter of the distance between positions 1 and 2; the second sounding was obtained at No. 5 buoy when the buoy had traversed one-quarter of the distance between positions 4 and 5; etc.

Respectfully submitted,

J. H. Hawley

Chief of Party.

TABLE OF STATISTICS
HYDROGRAPHIC SHEET NO. #4032 + 4032a

Day	Date	Vol.	Positions	Soundings	Drag Length	Miles	Sup. Sndgs
A	Sept. 25, 1918	1	37	1	5000	9.0	29
B	" 26 "	1	22	1	12000	3.5	24
C	" 30 "	1	51	0	5000	11.5	47
D	Oct. 1 "	1	35	0	6000	10.8	38
E	" 4 "	1	34	0	5000	7.0	19
F	" 8 "	1	37	0	6000	10.2	0
G	" 9 "	1	29	0	6000	10.0	0
H	" 10 "	2	29	1	6000	7.0	0
J	" 11 "	2	28	0	5000	8.0	0
K	" 12 "	2	24	0	9000	4.5	0
L	" 17 "	2	28	1	12000	9.2	76
M	" 19 "	2	31	0	5000	11.0	0
N	" 23 "	2	38	0	6000	13.5	33
O	" 24 "	2	34	0	6000	9.2	36
P	" 25 "	2	32	0	9000	7.0	43
Q	" 26 "	3	20	0	5000	3.5	0
R	" 28 "	3	17	0	6000	3.0	0
S	Nov. 4 "	3	33	1	6000	9.0	45
T	" 5 "	3	36	1	5000	5.5	31
U	" 9 "	3	23	0	5000	5.5	19
			618	6		157.9	390

LIST OF SIGNALS.
Hydrographic Sheet No. 4032.

Hydrographic name	Name of triangulation Sta. location, etc.
Pet	Petit Manan L.H., 1860.
Rag	Narraguagus L.H., 1861.
Nash	Nash Island L.H., 1902.
Saw	Sawyers Cove church spire, 1913.
Mark	Mark, 1862
Fal	Three Falls L.S.S. cupola, 1913.
Rum	Crumple, 1862.
Peak	Moose Peak L.H., 1862.
Cab	Scabby, 1863.
Lib	Libby Island, L.H. (old), 1862.
Ver	Avery Rock L.H., 1862.
	(see Special Publication No. 46 for locations of above triangulation stations)
Bot	Hydro. signal located by theodolite cuts, see page 57, Vol. 1 W.D. record.
Pond, Man, Black, Tree	Hydrographic signals located by sextant cuts, see pages 57-59, Vol. 1, Wire Drag record.

Original attached to page 1, Vol. 1, wire drag record.

Color Scheme used on smooth sheet of work done on the approaches to Machias Bay.

W.D.P.No.2----Sheet ~~#~~ 4032

0--19 Feet	Brown
20--29 Feet	Yellow
30--39 Feet	Blue
40--59 Feet	Red
60--79 Feet	Purple
80--Over.	Orange

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 583

PROGRESS CHART

SHOWING CONDITION OF RECORDS OF

Hydrographic Sheet No. 4032 Field No. 4

Wire drag survey of Approaches to Machias Bay

Scale 1/40,000 *Date of Survey* 1918

Surveyed by J.H.Hawley

Day	DATE	Signaled angles compared	Distances entered	Distances checked	Length of upright entered	Length of upright checked	Correction entered	Correction checked	Drag depth entered	Drag depth checked	Reducers entered	Reducers checked	Effective depth entered	Effective depth checked	Effective depth diagram entered	Effective depth diagram checked	Positions plotted	Dragged strip traced	Tracing checked	Area subdivided	Subdivision checked	Transferred and inked	Compared with chart
A	9/25	F.L.G	H.W.H	F.L.G	F.A.	E.J.H	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
B	9/26	(X) F.A. S.M.F	/	/	F.A.	E.J.H	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
C	9/30	F.L.G	W.H.H	F.L.G	F.A.	E.J.H	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
D	10/1	F.L.G	W.H.H	F.L.G	F.A.	E.J.H	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
E	10/4	F.L.G	W.H.H	F.L.G	F.A.	S.M.F	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
F	10/8	F.L.G	H.W.H	F.L.G	/	/	J.H.H	/	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
G	10/9	F.L.G	H.W.H	F.L.G	S.M.F	F.A	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
H	10/10	F.L.G	H.W.H	S.M.F	F.A.	S.M.F	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
J	10/11	F.L.G	S.M.F	F.L.G	/	/	J.H.H	/	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
K	10/12	(X) S.M.F (X) F.A. S.M.F F.L.G	/	/	/	/	J.H.H	/	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
L	10/17		/	/	/	/	J.H.H	/	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
M	10/19	F.L.G	J.H.H	F.L.G	/	/	J.H.H	/	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
N	10/23	S.M.F	N.C.	S.M.F	S.M.F	F.A	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
O	10/24	S.M.F	N.C.	S.M.F	P.W.	S.M.F	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
P	10/25	(X) P.W. N.C.	/	/	P.W.	S.M.F	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
Q	10/26	N.C.	N.C.	S.M.F	P.W.	S.M.F	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
R	10/28	N.C.	N.C.	S.M.F	P.W.	S.M.F	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
S	11/4	N.C.	N.C.	S.M.F	P.W.	S.M.F	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
T	11/5	S.M.F	N.C.	S.M.F	P.W.	S.M.F	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	
U	11/9	S.M.F	N.C.	S.M.F	P.W.	S.M.F	J.H.H	S.M.F	S.M.F	R.L.H	S.M.F	R.L.H	S.M.F	R.L.H			S.M.F			S.M.F		S.M.F	

This Progress Chart, checked to show the condition of the office work, should be forwarded to the office with the records.

11—6061

ADDRESS THE SUPERINTENDENT
U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 41-ACC

HYDROGRAPHY ETC., (HT)

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON May 13, 1919.

FIELD RECORDS

Division of Hydrography and Topography: HCG

Division of Charts:

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

HYDROGRAPHIC SHEET 4032

Approaches to Machias Bay, Maine.
J.H. Hawley in 1918.

Plane of reference is
Mean low water, reading

2.5 ft. on staff at Jonesport, Maine.

H.A. Bruce

Chief, Section of Tides
and Currents.

Kan Report of Hydrographer 4032 + 4032A

1

The entire area within the limit dragged appears to be well covered save for the splits as designated. All of the records were unusually well kept.

There were small differences running throughout between the original plotting of positions and that as plotted for verification. They were not sufficient however to warrant any change.

On "S" day the plotter failed to plot one position for the 2nd launch thus necessitating a revision of the area subdivision for that day.

On a few instances the distance between the two launches as computed from the distance angles was greater than the possible maximum, that is the drag length plus the tow line. At 36"i" the position of the guide launch was brought in as to lessen the length of drag as originally plotted, making it plot so as to conform to the full length of drag. At 1K the drag was counted "full length" as called for in the record.

2

The plotting of the supplemental soundings as a whole was carelessly done. About 40 % of the soundings

had to be corrected. The draftsman in plotting, contrary to regulations, used 3 and 4 feet as a quantity sufficient to increase the sounding as recorded to the next highest fathom; i.e., 4 fms, 3 ft or 4 fms, 4 ft. was plotted as 5 fms. This error was carried throughout and made up about 30% of the total soundings. Two-thirds of the soundings on "J" day were corrected as the spacing was incorrect, due to the error on this day as noted above. The soundings in a few cases were not accurately spaced and two or three unidentified soundings were removed.

Respectfully submitted,

Alois Baer

E.P.E.

ADDRESS THE DIRECTOR
U.S. COAST AND GEODETIC SURVEY

AND REFER TO No. 4-DRH

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
WASHINGTON

June 12, 1923.

SECTION OF FIELD RECORDS

Report on Wire Drag Sheet No. 4032.

Surveyed in 1918.

Chief of Party, J. H. Hawley.

Surveyed by J. H. Hawley.

Protracted by F. M. Albert; S. M. Ferguson.

Inked by S. M. Ferguson.

Verified and Area and Depth Sheet by A. Baer.

1. The depth and extent of dragging satisfy the specific instructions.

2. A clearance depth was obtained over all shoals discovered sufficient to insure safety to surface navigation in this particular locality except the 76-foot spot found at the end of T day. The drag grounded here at a depth of 89 feet and 76 feet was the least water obtained. No further dragging was done here. The least water was, therefore, not obtained on this shoal.

3. The supplemental hydrography is suitable for correcting the charts only in places where there are extensive blank areas. Otherwise, by order of the Chief, Division of Charts, the supplemental hydrography shall be disregarded.

4. The overlaps are sufficient.

5. There are several splits on this sheet, all shown on the Area and Depth sheet. As further work will be done in this locality, these splits should all be covered at that time. Also, the 76-foot spot mentioned in paragraph 2 should be dragged to determine the least water. The depths all around this spot vary from 2 to 2 1/2 times as deep and it is quite possible that much shoaler water exists. It is therefore highly advisable to determine a clearance depth on this spot as soon as practicable.
Attention is called to the fact that this 76-foot spot does not appear on the latest edition of Chart 1201, and also to the fact that all the bottom characteristics of the soundings discovered by the drag were omitted from Chart 1201.

6. Reviewed by A. L. Shalowitz, June, 1923.

Considered in reconstruction of charts 303 305 7/72 11/6/56