

# 6922 Additional work

## WIRE DRAG

Form 504

U. S. COAST AND GEODETIC SURVEY  
DEPARTMENT OF COMMERCE

### DESCRIPTIVE REPORT

Type of Survey Wire Drag

Field No. .... Office No. H-6922 Add'l Wk. ....

#### LOCALITY

State Maine

General locality Casco Bay

Locality East of Bailey Island

194 5

CHIEF OF PARTY

G. L. Anderson, I. E. Rittenburg

LIBRARY & ARCHIVES

DATE .....

B-1870 1 (1)++

6922

Additional work

WIRE DRAG

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER No. H-6922 Add'l. Wk. W. D.

Field No. ....

State Maine .....

General locality Casco Bay .....

Locality East of Bailey Island .....

Scale 1:10,000 .....

Date of survey Aug. 9, 1945 .....

Instructions dated July 20, 1945 .....

Vessel Hilgard & Wainwright .....

Chief of party G. L. Anderson, I. E. Rittenburg .....

Surveyed by .....

Soundings taken by fathometer, graphic recorder, hand lead, wire .....

Protracted by G. F. Jordan .....

Soundings penciled by .....

Soundings in ~~XXXXXX~~ feet at MLW ~~XXXXXX~~ .....

REMARKS: Plotted on H-6922(1943) W.D.

boat sheet H-6671 used in field

REG. NO. **H6922**  
ADDITIONAL WORK  
WIRE DRAG

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
NORTHEASTERN DISTRICT HEADQUARTERS  
TENTH FLOOR, CUSTOM HOUSE  
BOSTON, 9, MASS.

IN YOUR REPLY REFER TO  
FILE  
AND DATE OF THIS LETTER

August 17, 1945

To: The Director  
U.S. Coast and Geodetic Survey  
Washington 25, D.C.

From: C.O. HILGARD & WAINWRIGHT

Subject: Report on Wire Drag Investigations, Maine.

Reference: Your letter dated 20 July, 1945 same subject,  
number 22/MEK - 1975 Bo 4 and addressed to the  
Supervisor, N.E. District, Boston 9, Mass.

In accordance with instructions contained in the second paragraph of above reference, work was discontinued in the Boston area and these vessels proceeded to Maine on 30 July, 1945 and arrived in Portland Maine that evening. The loan of a tender was secured from the Army and the Commanding Officer of the LYDONIA was contacted for information and control data.

On 1 August these vessels sailed from Portland and wire dragged in the vicinity of Toms Rock in accordance with paragraphs 4 and 5 of above reference and then proceeded Eastward. On 6 August the investigation of Three Fathom Ledge was made in accordance with paragraph 2. Compliance with paragraph 3, Rockland Trial Course, was made on 7 and 8 August while the drag work in Casco Bay, East of Bailey Id in compliance with paragraph 6 was done on 9 August.

The records for the entire project are contained in one wire drag volume and are lettered as follows,

"A" day, 1 Aug., vicinity of Toms Rock, Me<sup>boat</sup> sheet number W. D. 667L, furnished by office. (H-6830 A44-WK)

"B" day, 6 Aug., Three Fathom Ledge, work done on chart 225.

"C" day, 7 Aug., "D" day 8 Aug., Rockland Trial Course, work done on chart 310. (FE.No.6&7)

"E" day, 9 Aug., Casco Bay E of Bailey Id, sheet number W.D. 6922, furnished by office.

See Note  
next page

For that work done on the charts, the signals and signal names are shown thereon. For that work done on the sheets furnished by the office signals and names were used as shown thereon. A list of signals used is attached to the wire drag volumes.

The final results for "A" day and "E" day cannot be given at this time since the actual tides from the Portland gage are not available. Preliminary results using predicted tides are as follows:

2- Report on Wire Drag Investigations, Maine - Cont.

"A" day vicinity of Toms Rock, sheet 6671, paragraphs 4 & 5 of original letter- the 38 ft sounding par. 4, was covered by  $34\frac{1}{2}$  feet and an actual fathometer sdg. of,  $38\frac{1}{2}$  ft. was obtained (fathogram attached). This disproves the 26 ft sdg. in question and proves the 38 ft. sounding. Paragraph 5 - the 55 ft. sdg. was cleared by 51 ft and the 43 foot sdg. was cleared by 39 feet.

Applies  
to  
H-6722  
only

"E" day, Casco Bay, par. 6 of reference, sheet number 6922, the 16 ft sdg., the 14 ft. sdg., and the 34 foot sdg were all disproved having been covered with drags of 21 feet, 18 ft and 37 feet respectively.

See  
Reviewer's  
Memo for  
location

"B" day, paragraph 2, Three Fathom Ledge. Final results. An actual fathometer sdg. reduced to  $17\frac{1}{2}$  ft and M L W was obtained (fathogram attached). The drag hung at  $17\frac{1}{2}$  and 17 feet but cleared at 16 feet.

This work is shown on chart # 225. On the guide launch line - the northwesterly line - whenever Matinicus Rock L. H. was behind Seal Island, a very poor fix was all that could be obtained. In most cases another angle was observed simultaneously hoping that by means of this angle the locii of points would assist in the final position of the fix. Sufficient fixes using Matinicus Id. L. H. were had to prove conclusively that Three Fathom Ledge was covered.

Final results for "C" day, and "D" day, paragraph 3, Rockland Trial Course. This work is done on chart number 310. Natural charted objects such as Tanks, lights, targets and beacons were used throughout. All but Monroe Id. Light have been located by triangulation. The buoys on the trial course were removed by the U.S. Coast Guard so that no splits remain from this cause. A least depth of 49 feet was carried over the entire area dragged.

The portable automatic tide gage operated by the Ship LYDONIA at Matinicus Harbor, was used to obtain tide reducers for the work on Three Fathom Ledge and the Rockland Trial Course. The LYDONIA also operates a standard automatic gage at Rockland so that if desired, these tides can be used when received. The tide gage in operation nearest the work in Casco Bay and in the vicinity of Toms Rock is at Portland Maine. The records are not available at present. Rather than wait for these data, the record is being forwarded to your office where the tide reducers for A and E days can be entered and the effective depths diagrams can be drawn. The records are complete except for these entries on A and E days.

The results of the wire drag on Three Fathom Ledge using predicted tides was discussed with the Operations Officer, U.S. Navy, Portland.

*George L. Anderson*  
George L Anderson

I. E. Rittenburg

*I. E. Rittenburg*

NAUTICAL CHART BRANCH

REVIEW SECTION

Reviewer's Memoranda on H-6922 (1945) W.D., Add'l Wk.

This additional work complies satisfactorily with the instructions of July 20, 1945 and completes the additional work recommended in the reviews of H-6809 (1942-1943) and H-6922 (1943) W.D.

The following soundings are considered disproved and have been removed from H-6809 (1942-1943):

- 16 ft sounding at lat.  $43^{\circ} 44.07'$ , long.  $69^{\circ} 59.0'$ , cleared with 21-foot drag.
- 14 ft sounding at lat.  $43^{\circ} 43.05'$ , long.  $69^{\circ} 57.66'$ , cleared with 17-foot drag.
- 34 ft sounding at lat.  $43^{\circ} 42.97'$ , long.  $69^{\circ} 57.17'$ , cleared with 36-foot drag.

Reviewed, Oct. 12, 1945

George F. Jordan

Inspected by: H. W. Murray

Surveys Section (Chart Division)

WIRE DRAG

HYDROGRAPHIC SURVEY NO. **H6922** Additional work

Records accompanying survey:

(See Boat Sheet H-6671 W. D.)

Boat sheets .1.; sounding vols. ....; wire drag vols. 3...;  
 (Filed under H-6922)

bomb vols. ....; graphic recorder rolls .2...;

special reports, etc. ... ~~Tidal Data~~ with F.E. No. 6 & 7 (W.D.) 1945

.....

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	.26..
Number of positions checked	.....
Number of positions revised	.....
Number of soundings recorded	.....
Number of soundings revised (refers to depth only)	.....
Number of soundings erroneously spaced	.....
Number of signals erroneously plotted or transferred	.....
Topographic details	Time .....
Junctions	Time .....
Verification of soundings from graphic record	Time .....

Verification by *G.F. Jordan*..... Total time .10... Date Oct. 5, 1945.

Review by ..... *G.F. Jordan*..... Time .2... Date Oct. 5, 1945.

*Ham.*

TIDE NOTE FOR HYDROGRAPHIC SHEET

October 1, 1945.

~~Division of Hydrography and Topography:~~

Division of Charts: Attention: H. W. MURRAY

Plane of reference approved in  
3 volumes of ~~sounding~~ records for  
wire drag

HYDROGRAPHIC SHEET 6922

Locality Rockland Trial Course, Coast of Maine

Chief of Party: G. L. Anderson & I. E. Rittenburg in 1945  
Plane of reference is mean low water, reading  
8.6 ft. on tide staff at Portland  
19.0 ft. below B. M. 31

Height of mean high water above plane of reference is  
8.9 feet.

Condition of records satisfactory except as noted below:

*Ham.*  
Chief, Division of Tides and Currents.





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Page 283

# 6922

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES  
NOV 13 1944  
Acc. No. \_\_\_\_\_

6922

Form 504

U. S. COAST AND GEODETIC SURVEY  
DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

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Type of Survey ..... Hydrographic

Field No. W.D. 1 ..... Office No. H-6922

---

LOCALITY

State ..... MAINE

General locality ..... CASCO BAY

Locality ..... HARPSWELL SOUND AND VICINITY  
~~EASTERN PART~~

---

1943

CHIEF OF PARTY

John H. Brittain

---

LIBRARY & ARCHIVES

DATE .....

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. H-6922

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. W.D. 1

REGISTER NO. H-6922

State Maine

General locality Casco Bay

Locality ~~Eastern Part~~ HARPSWELL SOUND AND VICINITY

Scale 1:10000 Date of survey June 30 to Sept. 3, 1943

Vessel HILGARD and MARINDIN

Chief of Party John H. Brittain

Surveyed by John H. Brittain

Protracted by A. Kaupa

Soundings penciled by A. Kaupa

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by

Verified by G.F. Jordan

May 7, 1941; March 11, 1942

Instructions dated March 16, 1943, 19

Remarks: This sheet was processed at the Norfolk Processing Office.

DESCRIPTIVE REPORT  
to accompany  
WIRE DRAG SURVEY NO. 1 (Field)

INSTRUCTIONS

Work was accomplished under original instructions dated May 7, 1941, and supplemental instructions dated March 11, 1942, and March 16, 1943. ✓

SURVEY METHODS AND EQUIPMENT

Standard dual control wire drag methods were used with the Launches HILGARD and MARINDIN as towing vessels. Lift tests were made using a coating of white lead and tallow on a 3/4" iron pipe suspended by graduated wire from a float. Launch No. 101 was used as a tender ✓ except for the period from August 17 to August 27 when a fishing boat was hired while launch No. 101 was laid up for repairs.

Considerable difficulty was experienced in obtaining a satisfactory towing speed for the launches for the first several days work. A short drag was necessary and it was not possible to slow down the engines of the HILGARD even with the use of two sea anchors to avoid excessive lift. Due to the poor condition of the carburetors ✓ on the Marindin the speed of that launch could not be adjusted to stay abreast of the HILGARD at all times. After considerable experimenting the engineer of the HILGARD succeeded in reducing speed to a more or less satisfactory speed although this caused considerable vibration to the launch.

RESULTS OF SURVEY

Hydrographic surveys were made in the area covered by this survey in 1942. Boat sheet soundings were available except for part of Harpswell Sound. 144 hand lead soundings were obtained at drag groundings on this survey. (six bottom samples obtained)

The principal discrepancies between the wire drag and the hydrography are listed as follows:

Lat. & Long.	Boat Sheet Sdg.	Hand Lead Sdg.	Cleared with effective depth
43°42.51'	(30.6")	18 ft. Rejected stray on fathogram	31 ft. and 34 ft
69°59.53'	(31.8")	" " "	" " "
43°42.60'	(36.0")	8 ft. " " "	10 ft.
69°59.67'	(40.2")	13 1/2 (w.d.)	" " "

} adjusted

Lat. & Long.	Boat Sheet Sdg.	Hand Lead Sdg.	Cleared with effective depth
43°42.80' (48.0") 69°59.47' (28.2")	19 ft. Rejected stray on fathogram H-6810		25" 29 ft. adjusted
43°42.87' (52.2") 69°57.06' (03.6")	27 ft.	20 ft.	19 ft. Not a discrepancy
43°45.83' (49.8") 69°57.30' (18.0")	34 ft.	19 ft.	18 ft. " " "

The area south of Jaquish Island was not dragged at this time as this area was being used by the Navy for experimental work with under water listening devices. (Scheduled for 1944 season)

#### TIDES

Hourly heights taken from the record of the Standard Gage at Portland, Me., were used, without correction, for the reduction of drag depths and soundings for this area.

Respectfully submitted,

*John H. Brittain*  
John H. Brittain, H & G E  
Chief of Party.

STATISTICS - WIRE DRAG SHEET NO. 1

Date	Letter	Vol.	Drag Length	Pos.	Statute Miles	Hand Lead Soundings
6-30-43	A	1	2100	31	3.1	-
7-1-43	B	1	1500	88	7.5	2
7-2-43	C	1	1500	16	1.6	-
7-6-43	D	1	2100	10)	2.5	2
7-6-43	D	1	1500	19)		
7-7-43	E	1 & 2	2800	45)	4.9	-
7-7-43	E	2	1200	40)		
7-8-43	F	2	2400	22	2.1	-
7-9-43	G	2	500	17	1.4	-
7-12-43	H	2	2400	22	1.9	4
7-13-43	J	2	2000	49	3.9	1
7-15-43	K	2	2400	28	2.6	7
7-16-43	L	2	1200	5	0.03	4
7-20-43	M	3	2800	23)	4.0	9
7-20-43	M	3	1200	12)		
7-20-43	M	3	2800	12)	3.9	-
7-21-43	N	3	2400	33		
7-23-43	P	3	2000	11)	2.7	4
7-23-43	P	3	1600	26)		
7-27-43	Q	3	900	2	0.02	3
7-28-43	R	3	2000	24)	2.9	6
7-28-43	R	3	1200	19)		
7-28-43	R	3	1600	11)	3.2	7
7-29-43	S	3	1200	30)		
7-29-43	S	3 & 4	1600	11)	4.8	8
7-30-43	S	4	900	13)		
7-30-43	S	4	2000	35)	2.5	7
8-3-43	T	4	900	4)		
8-3-43	T	4	1500	38)	1.4	-
8-4-43	V	4	1800	24		
8-5-43	W	4	900	3)	3.1	16
8-5-43	W	4	1500	20)		
8-5-43	W	4	1800	34)	1.4	15
8-6-43	X	4	1800	25		
8-9-43	Y	5	2100	47	2.3	3
8-10-43	Z	5	1500	28	1.5	3
8-11-43	AA	5	1500	90	6.1	6
8-12-43	BB	5	1800	59	4.0	7
8-17-43	CC	6	1500	39	2.6	3
8-18-43	DD	6	1500	45)	4.2	2
8-18-43	DD	6	1200	5)		
8-20-43	EE	6	1800	50	2.6	2
8-25-43	FF	6	1800	60	3.2	8
8-26-43	GG	6 & 7	1800	21	1.1	3
8-31-43	HH	7	2100	8)	4.2	2
8-31-43	HH	7	1800	48)		
9-1-43	JJ	7	1200	19)	2.8	5
9-1-43	JJ	7	2100	26)		
9-2-43	KK	7	900	10)	3.6	4
9-2-43	KK	7	1800	49)		
9-3-43	LL	7	1500	19)	1.6	1
9-30-43	LL	7	2100	9)		

Square Statute Miles 14.0

734

101.7

144

434  
708

ADDENDUM for H-6922 (Wire Drag)

Signal ITEM (Topo):

This signal is erroneously plotted on the boat sheet; therefore, the wire drag strips which were determined by this signal differ on the boat sheet from that shown on the smooth sheet. ✓

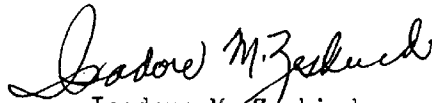
Split

There is a small split area at latitude  $43^{\circ} 44.58'$  and longitude  $69^{\circ} 58.39'$ . *Verification now shows this part of undragged area.*

Effective Drag Depths


The effective drag depth on this survey ranges from 8 to 53 ft. ✓

Respectfully submitted,

  
Isadore M. Zeskind  
Cartographic Engineer

Norfolk, Va.  
November 8, 1944

Approved & Forwarded

  
Paul C. Whitney  
Supervisor S.E. District

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6922**

Records accompanying survey:

Boat sheets .1...; sounding vols. ....; wire drag vols. 17...;  
 bomb vols. ....; graphic recorder rolls ....;  
 special reports, etc. .1 A. and D. sheet.....  
 .....

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet		.1000 (approx)	
Number of positions checked		..331.	
Number of positions revised		...0.	
Number of soundings recorded		..144.	
Number of soundings revised (refers to depth only)		...0.	
Number of soundings erroneously spaced		...0.	
Number of signals erroneously plotted or transferred		....0.	
Topographic details	Time	...9.	
Junctions	Time	..32.	
Verification of soundings from graphic record	Time	....	
Verification by .. <i>G. F. Jordan</i> .....	Total time	..121..	Date <i>Dec. 22, 1944</i>
Review by .....	<i>G. F. Jordan</i> .....	Time	..11.. Date <i>Dec. 22, 1944</i>

Remarks

Decisions

	Remarks	Decisions
1		U.S.G.B
2		
4		437699
5		"
6		"
7		"
8		"
9		
10		
11		
12		
13	Location of tide staff	
14		
15		
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24		
25		
26		
27		



GEOGRAPHIC NAMES

Survey No. **H6922**

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
<u>Maine</u>											1
<u>Casco Bay</u>											2
<u>Harpwell Sound</u>											3
<u>Orrs I.</u>											4
<u>Bailey I.</u>											5
<u>Ragged I.</u>											6
<u>Pond I.</u>											7
<u>Ram I.</u>											8
<u>Round Rock</u>											9
<u>Littlejohn Rock</u>											10
											11
											12
<u>Portland</u>											13
											14
											15
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											25
											26
											27

MAINE MAPS...  
 BY L. HECKEN 12/26/84

DIVISION OF CHARTS

Review Section -- Surveys Branch

REVIEW OF HYDROGRAPHIC SURVEY, REGISTRY NO. 6922 W.D.  
Field No. W.D. 1

Maine, Casco Bay, Harpswell Sound and Vicinity  
Surveyed in June to Sept., 1943; Scale 1:10,000  
Instructions dated May 7, 1941; March 11, 1942

Soundings:

Hand lead

Control:

Three-point fix on shore signals

Chief of Party - J. H. Brittain  
Surveyed by - J. H. Brittain  
Protracted by - A. Kaupa  
Subdivision of wire drag areas by - A. Kaupa  
Verified by - G. F. Jordan  
Reviewed by - G. F. Jordan  
Inspected by - H. R. Edmonston, January 12, 1945

1. Shoreline and Signals

The control for this survey is from previous triangulation and graphic control surveys T-6851 (1941), T-6912b (1942) and T-6929a and b (1942).

The shoreline is from planimetric drawings T-5960, T-5963, T-5969, and T-5970.

2. Junctions with Contemporary Wire Drag Surveys

Satisfactory junctions are made in the approach to Harpswell Sound with H-6670 (1941) W.D., and on the south with H-6662 (1941), W.D., H-6674 (1941) W.D., and H-6783 (1942) W.D. The present A and D sheet includes the latter survey, in the common area.

3. Comparison with Hydrographic Surveys

a. H-6809 (1942-43)

The deeper areas are satisfactorily covered by the present survey. Considerably shoaler depths were obtained on several critical shoal areas. The 19 and 21 ft. soundings in 27 to 40 ft. depths, at Lat.  $43^{\circ}45.85'$ , Long.  $69^{\circ}57.3'$ , obtained between two sounding lines 50 meters apart, demonstrate the value of wire drag surveys in this area.

- (1) A 35 ft. drag strip appeared to clear 30 and 33 ft. soundings at Lat.  $43^{\circ}43.9'$ , Long.

69°56.1'. The 30 appears as a clear and definite rocky pinnacle on the fathogram of the hydrographic survey. The discrepancy has been eliminated by rejecting the end section of the drag. The end of the drag had overlapped the 30 ft. sounding by 40 meters.

b. H-6810 (1942)

- (1) The 8, 18, and 19 ft. questionable shoal soundings charted on chart 315 in the vicinity of Lat. 43°42.5', Long. 69°59.6' were disproved by the present survey. Investigation was recommended in the review of H-6810, paragraphs 6a and 9. These soundings are strays from 17, 43, and 28 feet, respectively. The charted 8 should be replaced by a 12 ft. sounding on H-6810.
- (2) The 11 ft. contemporary and prior depth on Charity Ledge at Lat. 43°42.9', Long. 69°59.35' appears to be cleared by 12 and 13 ft. wire drag on the present survey. The contemporary soundings were 11-1/2 ft. by fathometer and 12-1/2 ft. by hand lead. A Coast Pilot report in 1928 is the authority for the previously charted 11 ft. depth. The present A and D sheet clearance depth has been changed to 11 ft. clearance, in order to provide agreement.

c. H-6732 (1941-42)

The present survey makes two small overlaps on the southwest with H-6732, and extends the wire drag coverage to include Mackerel Cove on Bailey Island. A wire drag sounding of 18 ft. extends the 18 ft. curve at Lat. 43°44.35', Long. 70°00'.

d. H-6661 (1941); H-6806 (1943)

The small overlaps with these surveys on the south and east, respectively, are satisfactory.

4. Comparison with Prior Surveys

This is the first wire drag survey in this area. No disagreements exist with prior hydrographic surveys which have not been disposed of in the reviews of the contemporary surveys.

5. Comparison with Chart 315 (latest print of Jan. 31, 1944)

Attention is called to paragraph 3 b (1), which notes the rejection of three charted soundings.

6. Condition of the Survey

- a. The split where the 25 ft. and 19 ft. wire drag strips do not overlap at Lat.  $43^{\circ}45.85'$ , Long.  $69^{\circ}59.3'$  is over a smooth bottom of 33 ft. depths, and is not considered to be an important deficiency.
- b. The sounding records and descriptive report are satisfactory.
- c. The smooth plotting was generally satisfactory. Some corrections were made in subdivided areas to conform to the Wire Drag Manual, pages 36, 37, and 40, especially in plotting increased or decreased depth changes.

7. Compliance with Instructions for the Project

The present survey adequately covers the area shown on the layout for the project, with the exception of a narrow strip southwest of Ram Island at Lat.  $43^{\circ}44.5'$ , Long.  $69^{\circ}58.2'$ .

8. Additional Work

No immediate additional work is considered necessary to complete the coverage of the present area. However, certain recommendations are offered for consideration.

- a. The advisability of dragging the buoyed passage around the west side of Littlejohn Rock at Lat.  $43^{\circ}45.0'$ , Long.  $69^{\circ}58.5'$ .
- b. Investigation of the 16 ft. prior sounding at Lat.  $43^{\circ}44.07'$ , Long.  $69^{\circ}59.0'$ , and the 14 ft. contemporary sounding at Lat.  $43^{\circ}43.05'$ , Long.  $69^{\circ}57.66'$ . These questionable soundings were discussed in the review of H-6809 (1942), paragraphs 5 a (9) and 8 d (5), and were not disproved by the present survey. The area immediately south of Round Rock and the 34 ft. sounding at Lat.  $43^{\circ}42.97'$ , Long.  $69^{\circ}57.17'$ , discussed in the review of H-6809, paragraph 6 b, might be included, in the event wire drag investigation of the above 14 ft. sounding is authorized. 16, 14, 34  
disproved on  
H-6922(1945)  
W.D.-Add.wk.  
10/14/49-G.F.J.

Examined and approved:

*Charles Price*  
Chief, Surveys Branch

*J. S. Borden*  
Chief, Division of Charts

*Carl O. Heaton*  
Chief, Section of Hydrography

*G. F. Hude*  
Chief, Division of Coastal  
Surveys

RAC  
H12

TIDE NOTE FOR HYDROGRAPHIC SHEET

November 16, 1944

~~Division of Hydrography and Topography:~~

✓ Division of Charts: Attention: H. R. EDMONSTON

Plane of reference approved in  
17 volumes of sounding ~~records~~ <sup>& wire drag</sup> for

HYDROGRAPHIC SHEET 6922

Locality Eastern Part, Casco Bay, Maine.

Chief of Party: J. H. Brittain in 1943  
Plane of reference is mean low water reading  
8.6 ft. on tide staff at Portland  
19.0 ft. below B. M. 31

Height of mean high water above plane of reference is 8.9 feet.

Condition of records satisfactory except as noted below:

*Atty* *Ham*  
Chief, Division of Tides and Currents.

Applied to reconstruction of Ch. 315 - 12/29/44 (after review) J.P.W.  
No Cor. to 201 after review - J.P.W. 2/23/45  
Partially applied to Ch 1204 - Mar. 1945 - J.P.W.  
Generalized dragged area applied to chart 315 July 1958

272

370