

6662

WIRE DRAG

6662
WIRE DRAG

Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Topographic~~ }
Hydrographic } Sheet No. H-6662

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
SEP 26 1941
Acc. No.

State MAINE

LOCALITY

GULF OF MAINE

WESTERN PART OF CASCO BAY

1931

CHIEF OF PARTY

I. E. Rittenburg

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. 10662 WIRE DRAG

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. 2001

REGISTER NO. H - 6662 (Wire Drag)

State Maine

General locality Gulf of Maine

Locality Western Part of Casco Bay

Scale 1:20,000 Date of survey June - Sept., 1941

Vessel Launches Mitchell & Ogden

Chief of Party I. E. Rittenburg

Surveyed by I. E. Rittenburg, Ross A. Gilmore

Protracted by G. E. Varnadoe

Soundings penciled by G. E. Varnadoe

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by I.E.Rittenburg & G.E.Varnadoe

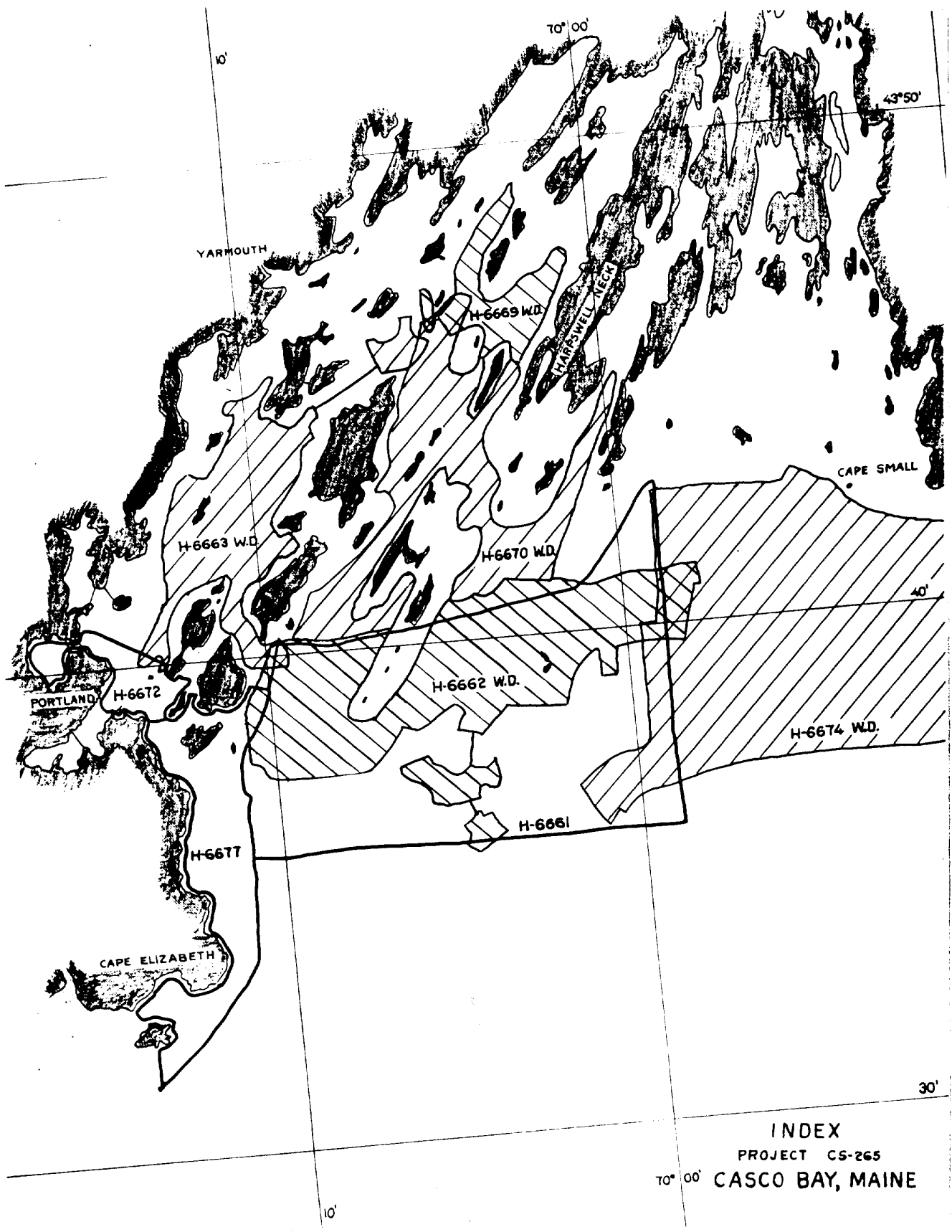
Inked by G. E. Varnadoe

Verified by G.F. Jordan

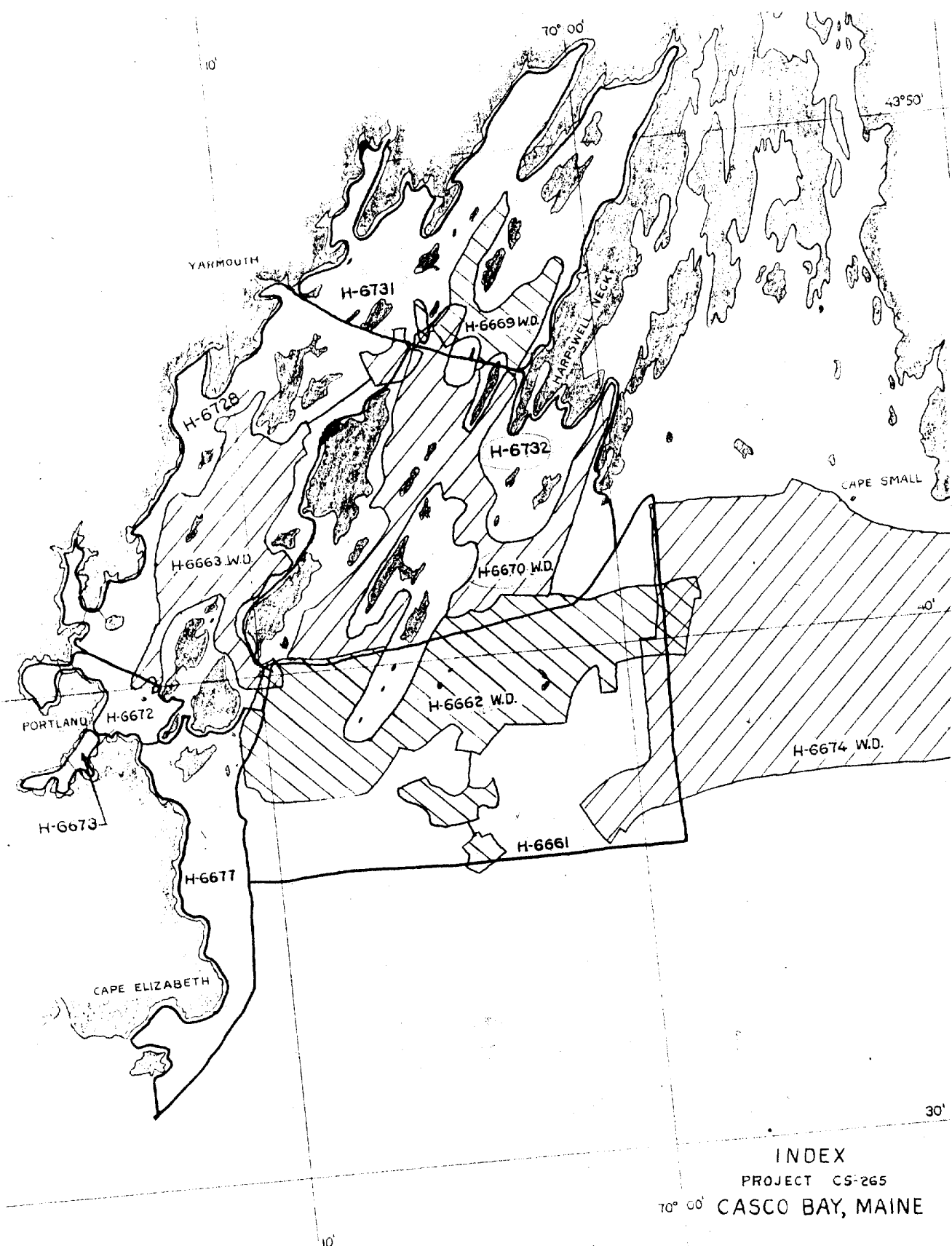
Instructions dated May 7, 1941, 19

Remarks:

apparently no A. & D. sheet



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PROJECT CS-265
70° 00' CASCO BAY, MAINE



INDEX
PROJECT CS-265
70° 00' CASCO BAY, MAINE

DESCRIPTIVE REPORT

To Accompany Wire Drag Sheet H-6662

Project CS-265. Casco Bay, Maine

INSTRUCTIONS, LIMITS & TIME OF SURVEY

This survey was executed in accordance with instructions for Project CS-265 dated May 7, 1941 and addressed to the Commanding Officer, Ship OCEANOGRAPHER. ✓

The area covered by this sheet extends from the approximate 10 fathom curve off Peaks and Ram Islands eastward to Long. 69 58, about 3 miles E. of Halfway Rock Lighthouse. Bulwark Shoal was dragged to disprove shoaler fathometer soundings. Wire drag operations extended from June to July 1941 and Sept. 1941. Approximate limits were laid down and furnished by the Office on a copy of Chart 201. 13 ft. on H-6661
11 ft. on present survey.

JUNCTIONS & OVERLAPS

Junctions were made with other surveys as follows: On the South with wire drag sheet H-3677, 1914; on the North with wire drag sheets Field Nos. ~~10011002~~ ^{H-6663 H-6670} of OCEANOGRAPHER, 1941; on the East with wire drag sheet ~~H-6667~~, this party, 1941. *Not received this date.*

Overlaps of adjacent and adjoining lines and at junction points are sufficient and satisfactory. ✓

SPLITS

The holiday in the vicinity of the Mussey in Lat. 43 39.5, Long. 70 08.8. The overlap of 13-16A by 26-28B is not a whole section but is more than $\frac{1}{2}$ section of 600 ft. Likewise the overlap of line 41-43M by 46-48M is not quite a whole section. In both cases it is recommended that technical splits be not called as considerably more than 300 feet ($\frac{1}{2}$ section) is overlapped and dual control was used. Due to this method of control each buoy path is definitely located and not based on a computation. ✓

SURVEY METHODS & EQUIPMENT

Standard dual control methods as authorized in S. P. #118 were used throughout the entire sheet. ✓ ✓

Towing launches were as follows: "RODGERS" (exchanged with the OCEANOGRAPHER for the "OGDEN" because of hoisting engine) guide launch, "MITCHELL" end launch, chartered launch GLENORNET as tender. No regular drag master was available. Seaman A.B. J. C. Phillips was detailed to test, raise and lower buoys. On groundings an officer went out in the tender from the guide launch to supervise soundings and take fixes. ✓ ✓

Lift tests were entered in the drag volumes to the nearest foot considering lift tests the same as tide reducers, i.e., changes occurred at three tenths of a foot. As an example, a lift of 2 feet 3 inches was considered a 2 ft. lift while a lift of 2 ft. 4 in. was considered a 3 ft. lift.

Ground wire used was 1/8" in size. Wire, aluminum floats, intermediate buoys, and weights were furnished from the subparty of the OCEANOGRAPHER and were all standard sizes. End buoys were built and were slightly larger than the 55 gal. drums shown in S.P.118.

Soundings for the boat sheet to be used in laying out drag strips were obtained from previous surveys, charts and hydro. sheet H-6661 in progress before and after this wire drag survey was made.

The detached area wire dragged between Lat. 43 37 and 38 minutes and Long. 70 04 and 05 minutes was done to cover a split on sheet wire drag 3677, 1914 and to deepen a previously dragged area. A heavy swell picked up this day. A lift of 5 feet was used so the final effective depths were less than intended. It is believed the remark in the end launch record book on page 23, vol. 3, relative to 8 ft. swell is slightly exaggerated as to the size of the swell as on page 22, vol. 3 the sea was calm. Slightly over an hour elapsed between the 2 remarks. Guide launch estimated swell at 3 ft., see page 28 (guide launch) vol. 3.

End launch boat sheet used was boat sheet for hydrographic sheet 6661, southern half and will be submitted with that hydrographic sheet when completed.

DATUM, CONTROL & SHORELINE

This sheet is on the adj. N.A. 1927 datum throughout.

Three point sextant fixes were used to control the buoy paths on this sheet. Triangulation stations were mainly located by C. A. Durgin in 1933. Topographic signal locations were from the aluminum mounted topographic sheets of this area done by the OCEANOGRAPHER this season. Shoreline is from previous surveys and the charts of this area. It should be noted that none of the topographic features were located by this party but are from other surveys. Therefore none of the topographic features shown should be considered in charting.

GROUNDINGS

Drag Pos.	Tender Pos.	Eff. Depth	Soundings	Cleared by	Depth Plotted	Remarks
39A-43A	1a	41	39	34	39	Near 37 ft. edg. on lx

See attached sheet for list of groundings.

LIST OF GROUNDINGS

(NBC) - no bottom characteristic

Drag Pos.	Tender Pos.	Eff. depth	Sound'gs	Cleared by	Depth plotted	Remarks
39A-43A	1a	41	39	34	34.0 ✓	See grounding 33X ✓ Near 37 ft. sounding on lx.
44A-48A	1a	32	none	34	34 ✓	See notes page 14 & 16 vol. 1 "g" due to not having reversed far enough.
11-17B	1,2&3b	43 ✓	37,36&34	not cleared	34 ✓	Too close to edge of ledge ✓
32B	4 & 5b	43 ✓	43-42 1/2 ✓	34-26 ✓ 26 ✓	43&42 ✓ NBC	29 ft. close by - near The Hussey. ✓
18C	1e	42 ✓	none ✓	cleared	42 ✓	Too close to ledge ✓
30-31D	1d	50 ✓	76 ✓	51-44 ✓	76 ✓	This "g" due to sag of wire. See Desc. report ✓
43D	2d, 3d	52 ✓	53 52, 52	45 ✓	52, 52 ✓	Near 44' grounding on E day ✓
"	3d	52 ✓	52 ✓	45 ✓	52 ✓	" " " " ✓
6E	1e	45 ✓	44 1/2 ✓	42, 40 ✓	44 ✓	
21E	2e	44 ✓	42 ✓	35 ✓	42 ✓	
32E	3e	41 ✓	50 ✓	43, 35, 39 ✓	44 43 ✓	Section inclined from 41-47 ft. See Desc. Report ✓
After 36F	1f	44 ✓	66 ✓	44 ✓	66 ✓	Due to sag of wire - See Dec. Report ✓ Also cleared by 41 1/2' by OCEO. ✓
47F	2, 3, 4, 5f	46	49, 49, 48 & 50 ✓	44	46 ✓ NBC	45' found on Sheet 2 OCEO. ✓
26J	1j	50 40 ✓	none	none	41 40 ✓	See note page 42 vol. 2 "N" not raised quickly enough. ✓
30L	1l	43 ✓	42	35 39 ✓	42 ✓ NBC	
16M	1m	51 ✓	45 ✓	35 ✓	45 ✓ NBC	
9N	1&2n	45 44 ✓	40&35	none	35 ✓ NBC	Too close to ledge in 1914 area ✓
13P	none	41 ✓	none	none	41 ✓	Sheet 3677
7Q	1q	35 34 ✓	none	none	35 34 ✓	Upright depth.
27Q	2q	26 ✓	none	none	21 26 ✓	From hydro. sheet 1-0001
37R	1, 2r	46	44, 40	26, 43, 33	44, 40 ✓ NBC	Near 28 ft. sounding 2t.
37R	2r	46 ✓	48	26	46 ✓ NBC	
27S	5s	38 ✓	none	35	38 ✓	
29-40S	1, 2s	37, 47, 46 ✓	35, 47	35	35, 46 ✓	temporary grounding at 33 U, with E.D. of 36 1/2
10T	1t	33 ✓	28 ✓	24 ✓	28 ✓	
28U	2t	28 ✓	29 ✓	26	28 ✓	
38U	1u	36 ✓	none ✓ 35 (1s)	35	35 ✓	Same "g" as 1s
5V	1v	44	none	33	none ✓	Near 34' 7w - Wire parted.
7W	1, 2 & 3w	25	20	not cleared	20 ✓ NBC	Near Hussey Rock.
21-29W	4, 5, 6, 7w	30 37 ✓	34	33	34 ✓	
24-28X	1, 2x	37 38	37&37 1/2	34	37 ✓	
33X	3x	34	none	34 son C-day none	42 34 ✓ NBC	Note rejected groundings 44-48A and see D.R. rejected ground 42. Rejected as it was pre-cleared by 42 1/2.
49X	3, 4x	33, 33 33	34, 35	Not cleared	33, 34 ✓	Near Hussey Rock.
21-26Z	1z	14	14 1/2	12, 11	14 1/2 ✓	Bulwark Shoal - 11 ft and 12 ft strips grounded at same point and cleared themselves.

COMPARISON WITH PREVIOUS SURVEYS & SHEET H-6661

A pencil A & D sheet of this survey was made on tracing paper by the Field Party. A comparison with the boat sheet of hydrographic survey No. H-6661 of this area and this party failed to disclose any soundings, shoaler than the effective depths dragged over any area. Likewise a comparison with the charts of this area was made for the same purpose.

Field A & D sheet destroyed. Pencil tracing made for office use. ✓

DISCREPANCIES

An apparent discrepancy on this sheet is the clearing of the grounding 3e wire drag pos. 32E effective depth 41 ft. with an effective depth of 43 ft. on L day. The grounding on 3e however occurred in about the middle of an inclined section with 41 ft. effective depth on one end and 47 ft. effective depth on the other. Accordingly 44 ft. was plotted (half the difference in effective depths). Since, in an inclined section, the shoaler effective depth carries over the entire section, the effective depth must be shown as 41 ft. *Tender records G at 75 ft from 4; 43 ft plotted, E.D. of clearing strip*

The grounding at position 30-31D day with an effective depth of 50 ft. was evidently due to sag of the wire in towing over to begin a new line. The least sounding found was 76 ft. This spot was cleared with 51 on 47-53D day and 44 ft. on 1-10F day. Likewise the grounding on F day after pos. 36 was also evidently due to sag in the wire while towing over to another line. In both cases the launch that was not towing over did not cast off but held on and turned too quickly instead of laying behind the drag. A least sounding of 66 feet was obtained here. It was cleared by 44 feet on this sheet and 41½ ft. by Lieut. Gossett on sheet Field No. 1, OCEANOGRAPHER. H-6670 (1941) W.D.

~~The grounding with effective depth of 32 ft. on pos. 44-48A was rejected as it was subsequently cleared by 34 ft. (X day & C day). It was evidently due to not having reversed far enough to clear the shoal previously found.~~

The note in the record book at pos. 33X relative to "buoy #1 appeared to hang up momentarily" should be rejected as the area was cleared by a drag with effective depth of 42 feet. *Not rejected as bight can bend around tender pos. 1a, with sdg. 39 ft, E.D. of 42 ft; now plotted as 34 ft, the E.D. of this strip and also strip on C-day, with no grounding.*

Submitted by

I. E. Rittenburg

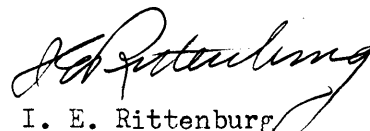
I. E. Rittenburg
H. & G. Engineer
Chief of Party

Statement to Accompany Wire Drag Sheet H-6662

The plotting of the drag positions on this sheet was done by
G. E. Varnadoe and I. E. Rittenburg.

The subdivision and inking of drag strips was also done by
G. E. Varnadoe and I. E. Rittenburg but was under the immediate
supervision of I. E. Rittenburg.

The smooth sheet was inspected and approved.


I. E. Rittenburg
H. & G. Engineer
Chief of Party

STATISTICS

Date	Letter	Volume	Drag length feet.	Positions	Miles Statute	Soundings
1941						
June	12 A	1	3600	48	5.5	1
	13 B	1	4200	33	4.1	5
	17 C	1	4200	22	2.6	1
	19 D	1	4200	53	5.6	3
	20 E	1	4200	39	2.6	3
	23 F	2	4200	51	4.7	5
	24 G	2	4200	31	3.7	0
	25 H	2	4200	50	5.3	0
	26 J	2	4200	26	2.8	1
	27 K	2	4200	22	2.8	0
July	2 L	2	3600	35	3.5	1
	3 M	3	3600 & 4200	69	7.5	1
	9 N	3	3600	14	1.3	2
	10 P	3	4200 & 2400	52	5.0	0
	11 Q	3	3600	27	2.2	2
	14 R	3	4200	43	4.6	2
	15 S	4	3600	71	6.5	3
	16 T	4	3600	54	3.8	2
	21 U	4	3000	60	5.1	1
	22 V	4	4200	6	0.6	1
	23 W	5	4200	29	1.7	7
	24 X	5	3500	55	2.9	4
Sept.	12 Y	5	3200	38	4.0	0
	16 Z	5	2800	37	2.4	1
				965	90.8	46

H6662 WIRE DRAG

TIDAL DATA SHEET

Tide reducers for this sheet were obtained from the hourly heights furnished by the Office from the records of the primary tide station at Portland, Maine.

The unit of reducers is feet.

Further information concerning the geographic position of the tide gage and the highest and lowest readings, etc., can be furnished by the Division of Tides and Currents.

M.L.W. on the staff as furnished this party was 8.6 feet.



I. E. Rittenburg
H. & G. Engineer
Chief of Party

82

LAC
HAE

TIDE NOTE FOR HYDROGRAPHIC SHEET

Division of Hydrography and Topography: October 3, 1941.

✓ Division of Charts: Attention: Mr. H. R. Edmonston

Plane of reference approved in
wire drag and
6 volumes of sounding records for

HYDROGRAPHIC SHEET 6662

Locality Western Part of Casco Bay, Gulf of Maine.

Chief of Party: I. E. Rittenburg in 1941
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:

H. A. Marnes
Acting Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES
 Survey No. **H6662**
 (Wire Drag)

Name on Survey	A. On Chart No.	B. On previous survey No.	C. On U. S. quadrangle Maps	D. From local information	E. On local Maps	F. P. O. Guide or Map	G. Rand McNally Atlas	H. U. S. Light List	K.
<u>Casco Bay</u>									1
<u>Gulf of Maine</u>									2
<u>Bulwark Shoal</u>									3
									4
<u>Portland</u>									5
									6
	Names underlined in red approved								7
	by L. HECK on 12/17/41								8
									9
									10
									11
									12
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									23
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									25
									26
									27

Remarks

Decisions

	Remarks	Decisions
1		U.S.G.B 436706
2		
3		436700
4		
5	location of tide staff	
6		
7		
8		
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25		
26		
27		

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6662** (Wire Drag)

Records accompanying survey:

Boat sheets ^{One}....; sounding vols. ⁽¹⁾....; wire drag vols. ⁽¹⁰⁾....;
 bomb vols.; graphic recorder rolls;
 special reports, etc.

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

Number of positions on sheet	.965.
Number of positions checked	..194.
Number of positions revised2
Number of soundings recorded	..46.
Number of soundings revised (refers to depth only)
Number of soundings erroneously spaced
Number of signals erroneously plotted or transferred
Topographic details	Time ...0
Junctions	Time1
Verification of soundings from graphic record	Time0

Verification by *G.F. Jordan*.....Total time .94. Date *Oct. 24, 1941*

Review by *J.A. McCormick*..... Time .42. Date *Nov. 29, 1941*

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H **H6662**
~~No. H~~ (Wire Drag)

received Sept. 26, 1941
 registered Sept. 29, 1941
 verified
 reviewed
 approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	<i>Knob</i>
----	-------------

✓ Rank

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H **H6662** (Wire Drag)

Verified and Inked by *G. F. Jordan*

Date *Oct. 24, 1941*

1. The descriptive report was consulted and appropriate action taken. ✓ ✓
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude. ✓ ✓
3. All references to survey sheets mentioned in the descriptive report include the registry number and year. ✓ ✓
4. Geographic names of hydrographic features are in slanting lettering and of topographic features in vertical lettering. —
5. All items effecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken. ✓ ✓
6. All positions verified instrumentally were check marked in the sounding records. ✓ ✓
7. All critical soundings are clear and legible. ✓ ✓
8. The metal protractor has been checked within the last three months. ✓ ✓
9. The protracting and plotting of all bad crossings were verified. ✓ ✓
10. All detached positions locating critical soundings, rocks or buoys were verified. ✓ ✓
11. The boat sheet was compared with the smooth sheet. ✓ ✓
12. The spacing of soundings as recorded in the records was closely followed. — ✓
13. The bottom characteristics were shown on outstanding shoals. ✓
only 15 out of the 34 soundings give bottom characteristics
14. The reduction and plotting of doubtful soundings were checked. ✓ ✓

15. The transfer of contemporary topographic information was carefully examined. *Topo. sheets not received from field.* ✓
16. All junctions were transferred. *only H-3677 (1919) WD on hand.* ✓
17. The notation "JOINS H " was added for all contemporary adjoining or overlapping sheets now registered. ✓ ✓
18. The depth curves have been drawn to include the significant depths. —
19. All triangulation stations and transfer of topographic and hydrographic signals were checked by the field party. ✓ ✓
20. Heights of rocks were checked against range of tide. —
21. Rocks transferred from topographic survey have a dotted curve where shown thereon. —
22. Unnecessary pencil notes have been removed. — ✓
23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.
24. The low water line and delineation of shoal areas have been properly shown (see letter of October 20, 1934).
25. Degree and minutes values and symbols have been checked. ✓
26. Source of shoreline and signals (When not given in report). Rev. ✓
27. Depth curves were satisfactory except as follows: —

28. Sounding line crossings were satisfactory except as follows: ✓ —

29. Junctions with contemporary surveys were satisfactory except as follows: ✓ ✓
The detached strips at Lat 43°36', Long 70°04' did not completely cover the split on H3677 (1914)WD

30. Condition of sounding records was satisfactory except as follows: ✓

31. The protracting was satisfactory except as follows: ✓

32. The field plotting of soundings was satisfactory except as follows: ✓

33. Notes to reviewer:

1. *Tender positions were rejected for groundings where no fix and sounding was obtained.* ✓
2. *A penciled A & D sheet was made, as the one referred to in this report was returned to the field, but subsequently returned to office and destroyed.* ✓

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF HYDROGRAPHIC SURVEY NO. H-6662 (1941) FIELD NO. 2001

Maine; Gulf of Maine; Western Part of Casco Bay
Surveyed in June - September 1941, Scale 1:20,000
Instructions dated May 7, 1941 (OCEANOGRAPHER)

Wire Drag

Dual Control

Chief of Party - I. E. Rittenburg
Surveyed by - I. E. Rittenburg; R. A. Gilmore
Protracted by - G. E. Varnadoe
Subdivision of wire-dragged areas by - I. E. Rittenburg;
G. E. Varnadoe
Verified by - G. F. Jordan
Reviewed by - J. A. McCormick, November 29, 1941
Inspected by - H. R. Edmonston

1. Shoreline and Signals

Graphic control surveys responsible for topographic signals had not been received in the office at the date of this review. Shoreline is from old surveys and is not to be used for charting.

2. Adjoining Surveys

H-6663 (1941) W.D. on the northwest and H-6670 (1941) W.D. are in the office but have not been verified. Preliminary inspection of both indicates satisfactory junctions with the present survey but final disposition will be made in the reviews of the unverified surveys. A 1:20,000 scale survey was made on the east but has not been received from the field. The overlap with H-3677 (1914) W.D. on the south is excellent except in the vicinity of Bulwark Shoal (lat. $43^{\circ}36'$, long. $70^{\circ}04'$). The original split on H-3677 was reduced considerably in size but not eliminated entirely. Several other splits on H-3677 were satisfactorily cleared.

3. Hydrographic Surveys

H-6661 (1941) covers most of the present survey but is still in process of verification. It has been consulted frequently on critical shoals but will be considered in its entirety in its own review. Old surveys

have been consulted infrequently as they must again be considered in the review of H-6661 and there are approximately 20 of them in the area.

4. Comparison with Chart 201 (New Print of October 2, 1941)
Chart 315 (New Print of July 10, 1941)

These charts have been inspected in as much detail as was possible considering that they are now being revised in Nautical Chart Section. The reviewer was instrumental in discrediting most of the contents of Chart Letter 491 of 1941 from which some critical soundings had already been applied.

5. General Comment

None.

6. Compliance with Project Instructions

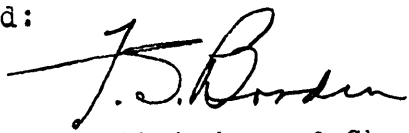
Excellent except as regards dragging around Bulwark Shoal.

7. Additional Field Work Recommended


None.

Examined and Approved:


Chief, Surveys Section


Chief, Division of Charts


Chief, Section of Hydrography


Chief, Division of
Coastal Surveys

No A. & D. sheet

Applied to Chrt. 201 (Before review + revif.) G.R. 12/10/41.
" " " 315 " " " " " " "

Applied to Chart Cor. 325 (Taken from Chrt. dng. 201) MEM. 12/12/41
Generalized dragged area 315 " " " " " LAM July '58 ³¹⁵
325 (Extension of limits) - 2-21-68 HRG - Added dragged areas