

8465

WIRE DRAG

Diag. Cht. Nos. 1203-3 & 1204-3.

<p>Form 504 U. S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY</p> <h3>DESCRIPTIVE REPORT</h3>	
Type of Survey	Wire Drag
Field No.	WA-HI-2253
Office No.	H-8465 W.D. W.D.
LOCALITY	
State	Maine
General locality	Muscongus Bay
Locality	Pemaquid Neck to Allen Island
<u>1953-55</u>	
CHIEF OF PARTY	
E. B. Brown & J. C. Ellerbe	
LIBRARY & ARCHIVES	
DATE	August 27, 1959

USCOMM-DC 5087

8465

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-8465WD ✓

Field No. WA-HI-2253WD ✓

State MAINE

General locality MUSCONGUS BAY
GULF OF MAINE

Locality PEMAQUID NECK TO ALLEN ISLAND
MUSCONGUS BAY

Scale 1:20,000 ✓ Date of survey 15 Sept. 1953 - 26 May 1955

Instructions dated 2/6/53; 3/9/54 & 2/11/55 ✓

Vessel WAINWRIGHT & HILGARD ✓

Chief of party (1953-54) E. B. BROWN & (1955) JOHN C. ELLERBE ✓

Surveyed by G. L. SHORT, R. A. PARKER, H. J. SEABORG, L. G. TAYLOR ✓
J. B. WATKINS, J. E. GUTH

Soundings taken by ~~XXXXXX~~, graphic recorder, hand lead, ~~XXX~~

Fathograms scaled by SHIP PERSONNEL ✓

Fathograms checked by SHIP PERSONNEL ✓

Protracted by W. W. FEAZEL ✓

DRAG STRIPS INKED

~~XXXXXXXXXXXXXXXX~~ by W. W. FEAZEL ✓

Soundings in ~~XXXXXX~~ feet at MLW ~~XXXX~~

REMARKS:

.....
.....
.....
.....
.....
.....

206

DESCRIPTIVE REPORT

H-8465 W.D.

To Accompany Wire Drag Sheet

Field No. WAHI-2253,WD

Project CS-265

Coast of Maine

Scale 1:20,000

E. B. Brown and John C. Ellerbe--Chief of Party

A. PROJECT

Supplemental Instructions dated 2/6/53, 3/9/54, and 2/11/55 22/MEK S-2-WA&HI.

B. SURVEY LIMITS AND DATES

Sheet covers $43^{\circ} 44'N$ to $43^{\circ} 54^{\prime 3}N$ and $69^{\circ} 14'W$ to $69^{\circ} 31'W$. Field work began 15 September 1953 and was completed 26 May 1955.

C. VESSELS AND EQUIPMENT

The Ships WAINWRIGHT & HILGARD acted as guide launch and end launch respectively except for F day 28 September 1953 when the HILGARD acted as guide launch. On that date the guide launch sheet and record book were taken aboard the HILGARD and the end launch record book was used aboard the WAINWRIGHT.. HILGARD positions are shown in red and those of the WAINWRIGHT in blue on that day only. Launch No. 171 was used as a tender throughout.

808 Fathometer No. 58S was used on the WAINWRIGHT throughout. In 1953, 808 fathometer No. 139SPX was used on the HILGARD and 808 fathometer No. 53 was used on Launch No. 171. In 1954, 808 fathometer No. 138SPX was used on the HILGARD and 808 fathometer No. 139SPX was used on Launch No. CS-171. In 1955, 808 fathometer No. 138SPX was used on the HILGARD and an unnumbered fathometer on Launch No. CS-171. Standard wire drag equipment was used throughout.

D. TIDE AND CURRENT STATIONS

Hourly heights for the reduction of soundings and drag depths were obtained from portable automatic tide gages at New Harbor and Port Clyde, Maine. Data are listed in Attachment No. 2.

No Current Stations were observed.

E. SMOOTH SHEET

^{Was}
~~To be~~ prepared by the Norfolk Processing Office. In processing field records many situations were considered where the manual required clarification. To insure uniformity of handling by all processors on the party a set of rules was formulated and typed for distribution. These rules are set forth in Attachment No. 7.

There were situations where, for convenience, uprights were left set at depths greater than project depth. In some cases these depths were not uniform and exceeded the $2\frac{1}{2}\%$ rule so that determining effective depths was relatively involved. In some cases the extra depth covered narrow areas whose limits are not positively known due to lack of positive knowledge of the actual shape of the bight. The smooth sheet plotter should use his judgement in not claiming this extra depth where he can gain time without sacrificing needed coverage by so doing.

F. CONTROL STATIONS

All control stations were located by conventional methods. No survey buoys were used. All signals are tabulated individually on Attachment No. 3.

Signals shown by red circles on the boat sheet are positive recoveries of marks or remains of former signals; those shown in blue were recovered by other means and are adequately located.

G. SOUNDING AND DRAG TESTS

Soundings were obtained using the 808 fathometer or the hand lead. Tests of the drag followed the method outlined in the manual.

H. CONTROL OF WIRE DRAG

Standard dual control methods were used. Cuts to the end buoy and then to the opposite vessel were taken immediately after the fix. The cuts were called plus (+) if the object was to the right of the signal and minus (-) if to the left. Length of tow line was the distance from the center of the wheelhouse to the end buoy in each case.

J. ADEQUACY OF THE SURVEY

This survey is considered adequate and no further field work is considered necessary.

K. COMPARISON WITH PREVIOUS SURVEYS

In general the wire drag was in good agreement with previous surveys. See Attachment #6 for a tabulation of hangs and hydrographic development indicating changes. Other hangs were of no consequence being due to the drag sagging at the set-out or an inadvertent hanging of the drag on shoals of known lesser depths.

L. AIDS TO NAVIGATION

See Attachment #5 of this report.

M. LANDMARKS FOR CHARTS

No new landmarks for charts are recommended for the area covered by this survey.

a. 1953 Season

One bar check on 9 October 1953 was used to compute bar corrections for fathometer 58S. These corrections are tabulated in Attachment #8. Fathometer corrections are zero for both the HILGARD and Launch CS-171.

b. 1954 Season

Fathometer No. 58S was used on the Ship WAINWRIGHT throughout the season. Two bar checks affect the work on this sheet. Curves were plotted from the means of these curves and corrections scaled in accordance with Paragraph 822 of the Hydrographic Manual.

Fathometer 138SPX was used on the Ship HILGARD throughout this season. One bar check affects the work on this sheet. Corrections were determined as above.

Fathometer 139SPX was used on Launch CS-171 throughout this season. Two bar checks affect the work on this sheet. Phase correction was determined for this instrument to be ± 2.5 feet to be applied to all "B" range soundings.

The effective radius of the respective stylus arms was measured on all fathometers and found to be within the proper limits.

See Attachment #8 for an abstract of corrections.

c. 1955 Season

Fathometer No. 58S was used on the Ship WAINWRIGHT throughout the season. One bar check affects the work on this sheet. A curve was plotted and corrections scaled in accordance with Paragraph 822 of the Hydrographic Manual. The length of bar uprights was checked and found to be correct. A 2.0 foot index was used throughout. A check of the length of the stylus arm showed negligible corrections.

Fathometer No. 138SPX was used on the Ship HILGARD throughout the season. The same corrections were determined and applied.

An 808 fathometer with no number was used in Launch CS-171 throughout the season. The length of bar uprights was found to require corrections which were applied. Other corrections were made in the same manner as described for fathometer No. 58S.

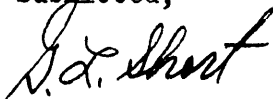
P. TIME

Local time was used to avoid discrepancies. Eastern Standard Time (75° M.T.) was used early in each season and Eastern Daylight Time (60° M.T.) was used subsequent. Date of change in 1955 was 24 April. Proper notation was made of time used.

Q. LIST OF ATTACHMENTS

1. Statistics
2. Tide Note
3. List of Signals
4. None
5. Aids to Navigation
6. Hang Data
7. Notice to Processors
8. Fathometer Corrections

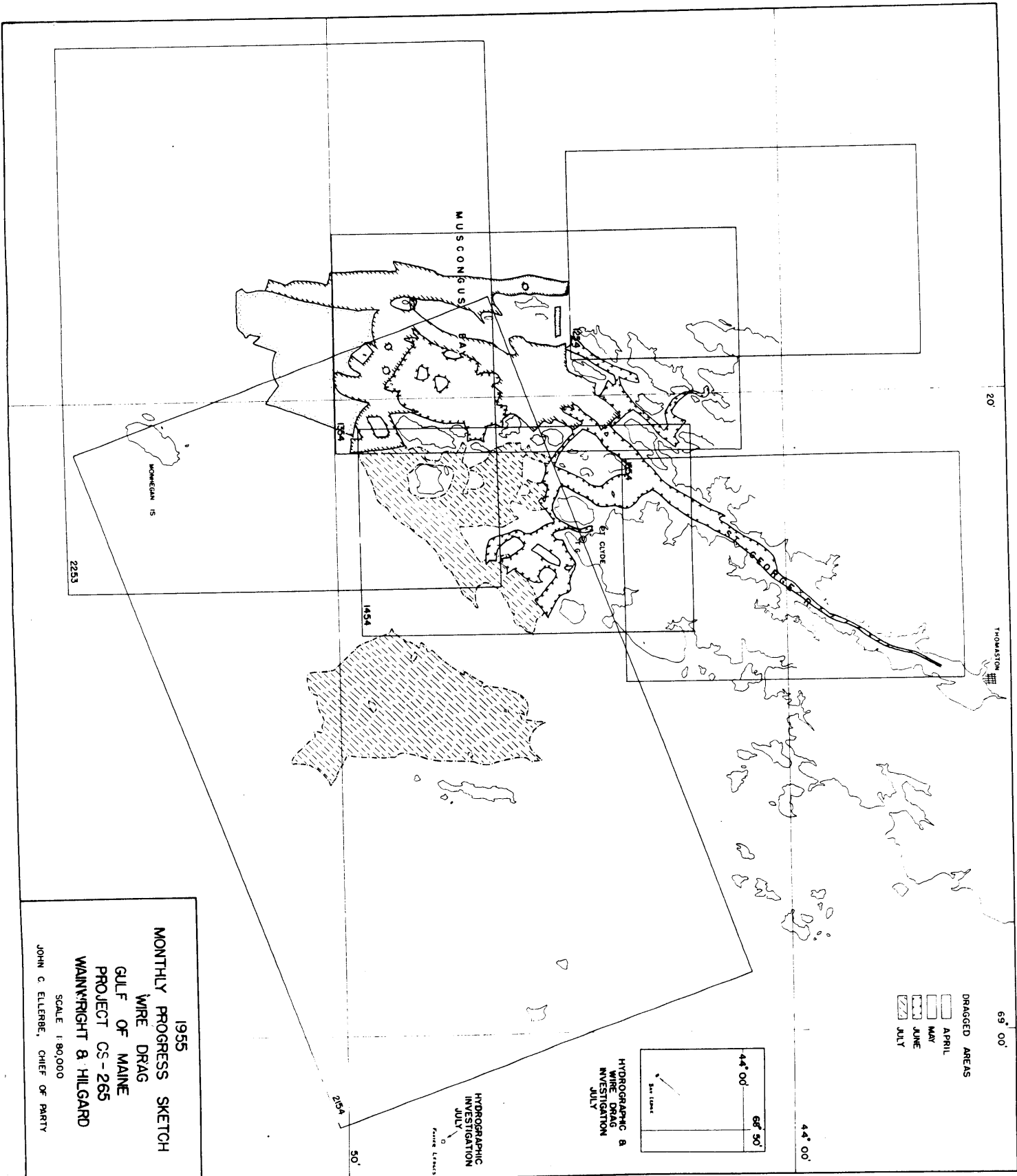
Submitted,



G. L. Short
Lt. Comdr., C&GS

Approved & Forwarded

John C. Ellerbe
Commander, C&GS
Chief of Party



20'

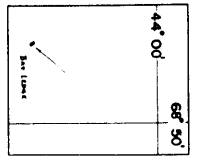
THOMASTON

69° 00'

- DRAGED AREAS
- APRIL
 - MAY
 - JUNE
 - JULY

44' 00"

68' 50"



HYDROGRAPHIC &
WIRE DRAG
INVESTIGATION
JULY



MUSCONGUS BAY

HYDROGRAPHIC
INVESTIGATION
JULY

PAULINE LEROUX

1454

26° 4' 50"

MONHEGAN IS.

2253

1955
MONTHLY PROGRESS SKETCH
WIRE DRAG
GULF OF MAINE
PROJECT CS - 265
WAINWRIGHT & HILGARD
SCALE 1:80,000
JOHN C. ELLERBE, CHIEF OF PARTY

STATISTICS

<u>VOL. NO.</u>	<u>DAY LETTER</u>	<u>DATE</u>	<u>NO. SDG.</u>	<u>NO. POS.</u>	<u>STAT. MI.</u>	
a. 1953 Season						
		1953				
	A	9/15		41	4.2	
	B	9/16		77	6.9	
	C	9/17		24	2.5	
	D	9/18		32	3.7	
	E	9/24		69	6.9	
	F	9/28		43	3.9	
	G	9/29		76	8.2	
	H	10/2		39	4.0	
	J	10/5		<u>47</u>	<u>4.7</u>	
				448	45.0	TOTALS
b. 1954 Season						
		1954				
	K	9/10		44	6.0	
	L	9/13		44	3.4	
	M	9/15		20	1.0	
	N	9/16		53	4.0	
	P	9/17		<u>31</u>	<u>3.2</u>	
				192	17.6	TOTALS
c. 1955 Season						
		1955				
4	Q	4/20		33	2.3	
4	R	4/21		31	4.9	
4	S	4/28		46	3.5	
4	T	5/10		18	1.6	
4	U	5/11		39	4.2	
5	V	5/12		65	5.1	
5	W	5/13		40	3.4	
5	X	5/20		62	6.2	
5	Y	5/26		<u>16</u>	<u>1.7</u>	
				350	32.9	TOTALS
Grand Total, Seasons of 1953, 1954, & 1955				990	95.5	

TIDE NOTE

a. 1953

The tide gage at New Harbor, Maine was used as a reference station for all work accomplished during this season. Mean Low Water was 3.6 feet above the zero of the tide staff. Reducers were applied without correction for time or range factor.

b. 1954

For the work accomplished during this season the Port Clyde tide gage (installed & maintained by the Ship GILBERT) was used as a reference station with a -0.2 height correction applied to the high water. Mean Low Water was 3.5 feet above the zero of the tide staff. Eastern Daylight Savings Time was used from 15 through 24 September 1953 and Eastern Standard Time for the remainder of the season. Eastern Standard Time is noted on all marigrams from the Port Clyde tide gage used during the 1954 season.

c. 1955

The Port Clyde tide gage records were used without time or range corrections in reducing 1955 soundings. The gage was installed and maintained by party personnel. Eastern Standard Time (75° MT) was used on "Q" and "R" days and Eastern Daylight Time (60° MT) on the remainder of the days. Mean Low water was 3.5 feet above zero of the staff.

*See Norfolk Processing
Office List of Signals*

LIST OF SIGNALS

<u>NAME</u>	<u>SOURCE</u>	<u>NAME</u>	<u>SOURCE</u>
ACE	See Boat Sheet	MAN	T-11135-S (See also P38 Vol. 4 WA)
BOX	WA-HI 1654	MON	Triangulation Sta. Monhegan L. H. 1859
BULL	T-5622	NAPU	H-6992
BUR	Triangulation Station BURNT IS. 2,1934	OX	H-6992
CAR	WA-HI 1654	PEM	Triangulation Sta Pemaquid L.H. 1859
CAT	WA-HI 1654	PIG	H-6992
CHIM	WA-HI 1154	POT	WA-HI 1654
DAR	H-6969	RAD	T-1135-S
DATE	H-6969	RAM	H-6969
DON	WA-HI 1654	RAY	WA-HI 1154
DOT	H-6992	RED	WA-HI 1154
EBB	WA-HI 1154	RUS	WA-HI 1154
EEL	WA-HI 1654	SAT	WA-HI 1654
EGG	Triangulation Station Eastern Egg Rock Bn. 1934	SIN	Vol. 4 P. 35 WAIN.
FOX	WA-HI 1654	TOP	WA-HI 1654
FRAN	Triangulation Station Franklin Is. L.H. 1859	WAT	WA-HI 1654
GULL	Triangulation Station Gull, 1859	WAX	Vol. 4 P. 35 WAIN
JAY	H-6992	WET	WA-HI 1654
LOF	WA-HI 1354	YAK	WA-HI 1154
LOP	WAHI 1654	YEL	Triangulation Station Yellow Head 2, 1934

*See Norfolk Processing Office
List of Aids to Navigation*

AIDS TO NAVIGATION

<u>OBJECT</u>	<u>RECORDED</u>	<u>SHIP</u>
New Harbor Sunken Ledges Buoy N "14"	Pos. 31 "D" day	WAINWRIGHT
Moser Ledge R&B Buoy	Pos. 37a "F" day	WAINWRIGHT
Old Man Ledge Lighted Whistle Buoy "20M"	Vol. 4 Page 38	WAINWRIGHT
Duck Rocks Bell Buoy 7	Vol. 3 Page 21	WAINWRIGHT
Gull Rock Ledge Bell Buoy 12GRL	Vol. 1 Page 23	Tender

HANG DATA

Latitude	Longitude	General Depth	Shoalest Hang Ft.	Position Number	Maximum Clear Feet	Cleared Pos. No.	Shoalest Sdgr. Ft.
1. 43° 51.3'	69° 28.5'	52	50'	29A	Not adequately cleared 51' 52'	33-35A	--
2. 43° 51.3'	69° 26.8' ⁸⁵	56	54'	21C	51' 52'	3-5F	--
3. 43° 49.0'	69° 23.4'	44-60	57'	5J	39'	1-5X	43
4. 43° 46.6'	69° 16.6'	18 <i>Reported</i>	--	--	22'	1-10N	26 1/2 ← NO HANG
5. 43° 51.2' ⁴	69° 26.8' ⁸⁵	56	56' ⁴	20C	52'	1-6F	--
6. 43° 51.3'	69° 23.0'	14	9 1/2'	40X	8	--	7' ← No evidence of 7' sounding
7. 43° 49.4'	69° 23.4' ³	43	39'	9X	32'	10-15X	3 3/4
8. 43° 50.7' ⁷	69° 20.8' ⁸¹	31	38' ²⁸	18W	24'	19-23W	26'
9. 43° 50.2' ⁶⁵	69° 18.7' ⁶⁴	39	32'	11T	28'	12-22T	31'
10. 43° 50.95'	69° 20.6'	7	6'	7V	2'	8-20V	5'
11. 43° 50.91'	69° 21.01'	60	26'	18W	10' ⁹	21-35V	18' ¹⁹
12. 43° 48.96'	69° 25.41'		53	25F	44		
13. 43° 51.32'	69° 23.00'		8	47X	Not cleared		

See Hang Data on Smooth Sheet

RULES FOR PROCESSORS

1. The effective depth of an inclined section shall be assumed to be the effective depth of the shoaler side except as modified by the $2\frac{1}{2}$ percent rule. ✓
2. The drag shall be assumed to have an additional foot of lift between the beginning of the line and the time of assuming normal bight. ← Rejected.
Not according
to Manual
3. The effective depth of a toppled buoy is indeterminate and drag area claimed shall not include the area affected during the time any buoy is toppled. ✓
4. THE $2\frac{1}{2}$ RULE. If the difference in length of the two uprights of an inclined section is greater than $2\frac{1}{2}$ percent of the length of the section, the depth of the deeper upright shall be reduced to the maximum depth that will meet this requirement. (Note that the section beyond the reduced upright may be affected.) ✓
5. When deep sections of the drag lie between sections inclined to lesser depths, each deeper section adjoining an inclined section shall be reduced to the effective depth of the adjacent inclined section.

FATHOMETER CORRECTIONS

Ship WAINWRIGHT - Fathometer No. 58S - Initial set at 2.0'

1953 Season

A Range - Feet		B Range - Feet	
<u>Depth</u>	<u>Correction</u>	<u>Depth</u>	<u>Correction</u>
0 to 28.0	-0.5		
28.1 - 50.0	-1.0	35.0 - 90.0	-2.5

Ship WAINWRIGHT - Fathometer No. 58S - Initial Set at 2.0'

1954 Season

A Range - Feet		B Range Feet	
<u>Depth</u>	<u>Correction</u>	<u>Depth</u>	<u>Correction</u>
0 to 13.9	0.5	35.0 to 64.9	-1.0
14.0 to 50.0	0.0	65.0 to 90.0	-1.5

Ship WAINWRIGHT - Fathometer No. 58S - Initial set at 2.0'

1955 Season

A Range - Feet		B Range - Feet	
<u>Depth</u>	<u>Correction</u>	<u>Depth</u>	<u>Correction</u>
0 to 13.7	0.8	to 44.9	-0.2
13.8 to 18.9	0.6	45.0 to 49.9	-0.4
19.0 to 26.6	0.4	50.0 to 55.9	-0.6
26.7 to 38.9	0.2	56.0 on	-0.8
39.0 on	0.0		

FATHOMETER CORRECTIONS

Ship HILGARD - Fathometer No. 139SPX - Initial set at 2.0

1953 Season

Use zero correction throughout

Ship HILGARD - Fathometer No. 138SPX - Initial set at 2.0'

1954 Season

A Range - Feet		B Range - Feet	
<u>Depth</u>	<u>Correction</u>	<u>Depth</u>	<u>Correction</u>
0 to 30.5	0.0	35.0 to 44.5	-3.5
31.0 to 44.5	-0.5	45.0 to 55.5	-4.0
45.0 to 50.0	-1.0	56.0 to 64.5	-4.5
		65.0 to 73.5	-5.0
		74.0 on	-5.5

Ship HILGARD - Fathometer No. 138SPX - Initial set at 2.0'

1955 Season

A Range - Feet

<u>Depth</u>	<u>Correction</u>
0 to 12.5	/ 0.2
13.0 to 20.5	/ 0.6
21.0 to 30.0	/ 1.0

FATHOMETER CORRECTIONS

Launch No. CS-171 - Fathometer No. 53 - Initial set at 0.5'

1953 Season

Use zero correction throughout

Launch No. CS-171 - Fathometer No. 139SPX - Initial set at 0.0'

1954 Season

A Range - Feet		B Range - Feet	
<u>Depth</u>	<u>Correction</u>	<u>Depth</u>	<u>Correction</u>
0 to 44.5	0.0	35.0 to 44.5	0.0
45.0 to 50.0	-0.5	45.0 to 90.0	-0.5

Launch No. CS-171 - Fathometer No. unknown - Initial set at 0.0'

A Range - Feet 1955 Season

<u>Depth</u>	<u>Correction</u>
0 to 16.2	0.6
16.3 on	0.4

NORFOLK PROCESSING OFFICE
LIST OF
FLOATING AIDS TO NAVIGATION
H-8465WD

<u>BUOY</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH</u>	<u>POS. NO.</u>	<u>DATE</u>
New Hbr. Sunken Ledges Buoy 14	43-51.40	69-26.87 ⁵	71' [←] <i>Depth not plotted</i>	1d	9/18/53
Moser Ledge R&B Buoy	43-48.69	69-25.64	24' [←] <i>Depth not plotted</i>	1f	9/28/53
Old Man Ledge Ltd. Whistle Buoy "20M" "20M"	43-50.15	69-18.93	237' [←] <i>Depth not plotted</i>	1&2T	5/10/55
Duck Rocks Bell Buoy 5	43-46.77	69-20.05 ⁴	68' [←] <i>Depth not plotted</i>	1 1	9/13/59
Gull Rock Ledge Bell Buoy 12GRL	43-45.06	69-18.21	37' [←] <i>Depth not plotted</i>	4n	9/16/54

NORFOLK PROCESSING OFFICE
LIST FO SIGNALS
To Accompany
H-8465WD

TRIANGULATION STATIONS

BUR BURNT ISLAND 2, 1934
EGG EASTERN EGG ROCK BEACON, 1934
FRAN FRANKLIN ISLAND LIGHT, 1859
GULL GULL, 1859
LOP DUCK ROCKS DAYBEACON, 1953
MAN OLD MAN LEDGE DAYBEACON, 1953
MON MONHEGAN LIGHT, 1859-1934
NEW NEW HARBOR, METH. EPISCOPAL CHURCH, CROSS ON STEEPLE, 1934-42
PEM PEMAQUID L.H., 1859
YEL YELLOW HEAD 2, 1934

MARKED TOPOGRAPHIC STATIONS

BULL BULL, 1943 T-5620
DATE DATE, 1943 T-11131S
LOF WOLF, 1943 T-5620

TOPOGRAPHIC STATIONS

SOURCE T-11135 S

Box Cat Don Dof Eel Fox Pot Sat Teal
Top Wat Wet

SOURCE H-6992

Jay Napu Ox Pig

SOURCE H-6853

Chim

SOURCE T-5991 SOURCE H-6844 Source H-6969

Ray Yak Dar Ram

SOURCE T-5620

Rad

TOPOGRAPHIC FEATURES

Rus T-5991

HYDROGRAPHIC STATIONS

Car Vol. 3, pg. 27&28
Sin Vol. 4, pg. 35
Wax Vol. 4, pg. 35

Station "Ace" was transferred from the boat sheet

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

WIRE DRAG SURVEY H-8465 (WA-HI-2253WD)

GENERAL

This appears to be an excellent wire drag survey. Most of the discrepancies encountered were minor in nature and the methods used by the smooth plotter to adjust them are explained on the plotting overlays.

It is probable that the three areas of insufficient overlap are adequately dragged. The boat sheet shows these lines beginning with the drag plotted N to F straight. Reverse bights are shown on the smooth sheet because they are recorded as such in one or the other drag volumes.

The one foot of assumed lift at the beginning of each drag line was rejected during the smooth plot. There is no precedent for this procedure and it is difficult to show the depth changes clearly on most of the beginning bight formations.

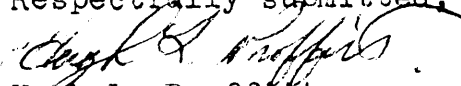
DISCREPANCIES

The reported hang and clear at position 39L, Vol. 3, pg. 22, was not smooth plotted as a ground as the charted depths are much greater than the effective drag setting. The hang indication is believed to have been caused by tension as the End Launch went out on the line at this time.

Radical changes were made in the effective depth diagram on line 19 thru 42X, vol. 5, due to the application of the $2\frac{1}{2}\%$ rule. (See the Processing Office diagrams attached to page 51).

Norfolk, Va.
21 August 1959

Respectfully submitted,


Hugh L. Proffitt
Cartographer

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8465.W.P.

Records accompanying survey:

Boat sheets ..2..; sounding vols. .1...; wire drag vols.10;
 bomb vols.; graphic recorder rolls 1-Envelope
 special reports, etc. 1-Smooth sheet, 1-Area & Depth Sheet,....
 .1-Roll, Plotting Overlays and Field notes on drag settings....
 (Filed with Fathograms).

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

Number of positions on sheet	990
Number of positions checked	149
Number of positions revised	0
Number of soundings revised (refers to depth only)	1
Number of soundings erroneously spaced	-
Number of signals erroneously plotted or transferred	-
Topographic details	Time 1.0
Junctions	Time 12:0
Verification of soundings from graphic record	Time 2.0

← HWL Drawn on A & D Sheet

Verification by *Del E. Westbrock* Total time 119.5 hrs. Date 10/9/64
 Reviewed by *Del E. Westbrock* Time 20.0 hrs. Date 10/13/64

OFFICE OF CARTOGRAPHY

REVIEW SECTION -- NAUTICAL CHART DIVISION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8465 W.D.

FIELD NO. WAHI-2253 W.D.

Maine, Muscongus Bay, Pemaquid Neck to Allen Island

SURVEYED: September 1953--May 1955 SCALE: 1:20,000

PROJECT NO. CS-265

SOUNDINGS: 808 Depth Recorders
Handlead

CONTROL: Sextant Fixes on
Shore Signals

Chief of Party-----E. B. Brown (1953-54)
J. C. Ellerbe (1955)
Surveyed by-----G. L. Short
R. A. Parker
H. J. Seaborg
L. G. Taylor
J. B. Watkins
J. E. Guth
Protracted by-----W. W. Feazel
Drag Strips Inked by-----W. W. Feazel
Verified by-----D. E. Westbrook
Reviewed by-----D. E. Westbrook
Inspected by-----R. H. Carstens

October 13, 1964

A. Purpose of the Survey

The purpose of this wire-drag survey was to assure safe anchorage areas and passages thereto for deep draft vessels, and to determine the least depth within two feet of all previously located dangers, and of dangers which may be found in the progress of the survey.

B. Shoreline and Control

The shoreline originates with reviewed photogrammetric manuscripts T-5991 (1941-42); T-11130-S (1952-55); T-11131-S (1952-55); T-11134-N (1952-55); T-11135-N (1952-55); and T-11135-S (1953-55).

The source of the control is adequately described in the Descriptive Report.

C. Junctions with Wire-Drag Surveys

Adequate junctions were effected with H-8181 (1953) W.D. on the west; H-8183 (1954) W.D. on the northwest; and H-8184 (1954) W.D. in the vicinity of Monhegan Island.

The junctions with H-8500 (1954-55) W.D. on the north; H-8182 (1953) W.D. on the southwest; and H-8554 (1955-56) W.D. on the east, will be discussed in the reviews of those surveys.

D. Comparison with Hydrographic Surveys

H-6853 (1:10,000) 1943
H-6861 (1:20,000) 1943-44
H-6969 (1:10,000) 1944
H-6982 (1:20,000) 1944-45
H-6992 (1:10,000) 1944

The effective depths of the present wire-drag survey do not conflict with the depths on the above listed surveys.

E. Comparison with Chart 313 (11th Ed., Rev. 8/10/64).

1. Hydrography

The charted hydrography originates with the previously discussed hydrographic surveys which require no further consideration.

This hydrography is supplemented by information from the unverified smooth sheet of the present wire-drag survey, and from Chart Letter No. 1013 (1955).

Additional wire-drag information in the vicinity of Lat. $43^{\circ}49'$, Long. $69^{\circ}25'$, is provided by F.E. No. 6, 1958 W.D., a wreck investigation. see #6 & #7

Attention is directed to the following:

The 48-ft. cleared depth charted in Lat. $43^{\circ}51.30'$, Long. $69^{\circ}28.49'$ originates with the present survey before verification. During verification, it was determined that insufficient overlap existed at this point and that the area could not be considered cleared. 1204 ✓

The 50-ft. hang depth should be charted and the 48-ft. cleared depth and word "shoal" should be deleted. 3

The 13-ft. cleared depth charted on Moser Ledge in Lat. $43^{\circ}48.70'$, Long. $69^{\circ}25.65'$ originates with the present survey before verification. During verification, it was found that the navigation buoy marking the ledge stood directly over the least depth, thereby disallowing the claim that the shoal was adequately cleared. 4

The 13-ft. cleared depth should be replaced by the 15-ft. least depth shown on H-6861 (1943-44) which had been previously charted. 1204 ✓ 5

The 53-ft. cleared depth charted in Lat. $43^{\circ}48.90'$, Long. $69^{\circ}24.60'$ originates with Chart Letter No. 675 (1958), reporting a wreck investigation (See F.E. No. 6, 1958 W.D.). This field examination shows the position of the reported wreck to be cleared by 52-ft. after verification and review. The present wire-drag survey also shows the position to be cleared by 52-ft. 6

The 53-ft. cleared depth should be replaced by a 52-ft. cleared depth. 1204 ✓ 7

The 7-ft. sounding charted in Lat. $43^{\circ}51.29'$, Long. $69^{\circ}23.00'$ originates with Chart Letter No. 1013 (1955). The present survey shows this area to be cleared by 8-ft. Due to the small difference between the two depths, and due to the fact that the 7-ft. sounding was reported by the same party which made the present wire-drag survey, the 7-ft. reported sounding is not considered disproved and should be retained as charted. 8
1204 ✓

The two 19-ft. cleared depths and words "shoal" charted in Lat. $43^{\circ}50.68'$, Long. $69^{\circ}23.49'$, and Lat. $43^{\circ}50.61'$, Long. $69^{\circ}23.70'$ originate with the present survey before verification, and do not correctly show the situation as it exists in the vicinity of this shoal. These two cleared depths should be deleted from the chart. 9

The 20-ft. sounding from H-6861 (1943-44) charted in Lat. $43^{\circ}50.74'$, Long. $69^{\circ}23.57'$ should be changed to a 19-ft. cleared depth. Other depths from H-6861 (1943-44) may be used to fill in the chart where necessary to further delineate the shoal. 10
2

The 28-ft. cleared depth charted in Lat. $43^{\circ}50.62'$, Long. $69^{\circ}18.65'$ originates with the present survey before verification. The position of the hang was revised during verification and it now falls about 100 meters to the northward. The 28-ft. cleared depth should be repositioned in accordance with its new location on the present survey. 11

use 31 ft sdg

2. Aids to Navigation

The present survey positions of aids to navigation are in substantial agreement with the charted positions and adequately mark the features intended.

Sunken Duck Rock Bell Buoy "5" was moved to a new location subsequent to the date of the present survey.

F. Condition of Survey

1. Field Work

The field work was satisfactorily accomplished. The survey

contained one split and three areas of insufficient overlap. Most of these areas, however, were not critical and as a result the quality of the survey was not adversely affected.

One foot of additional lift was assumed by the field party at the beginning of each drag strip until a normal bight was obtained. This practice was correctly rejected by the smooth plotter as having no precedent, and is not in accordance with the manual. It is believed that plotting of the bights in the standard conservative manner satisfies the necessary safety factor at the beginning of each drag strip.

2. Records

The information recorded in the volumes is adequate except that the investigation of Egg Rock South Ledge as reported in Chart Letter No. 1013 (1955) was not recorded in the volumes of this survey. 12

A conflict exists between a reported 7-ft. least depth and the 8-ft. cleared depth shown on the present survey on the south side of the ledge. Since no records were found to substantiate or disprove the 7-ft. reported sounding it was necessary to recommend that it be retained as charted. 13

3. Descriptive Report

The descriptive report is complete and comprehensive.

G. Compliance with Project Instructions


The survey adequately complies with the Project Instructions except that the requirement that all dangers be cleared within 2-ft. of the least depth was not followed in several instances.

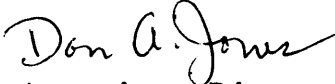
H. Additional Field Work

No additional field work is recommended.

H-8465 - 6

Examined and Approved:


Chief, Marine Chart
Division


Associate Director, Office of
Hydrography and Oceanography

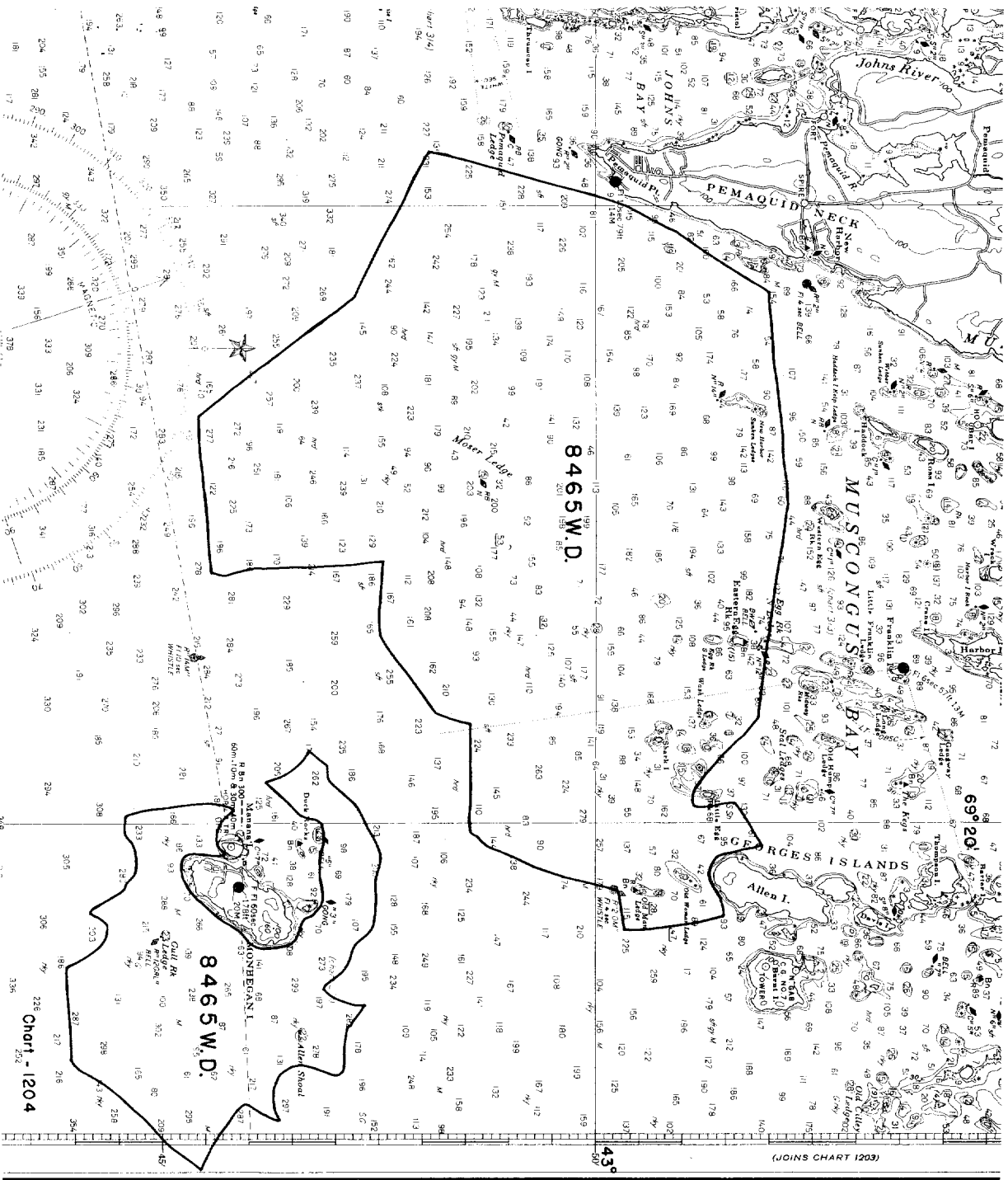
C323x1 Stems

Buoy #5+6,4,3,
See letter to C.G. 2,1

L. Evans

#7 Weirs

Brooke #8



TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

27 October 1959

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

HYDROGRAPHIC SHEET 8465

Locality Muscongus Bay, Maine

Chief of Party: E. B. Brown & J. C. Ellerbe in 1953-1955

Plane of reference is mean low water, reading

3.6 ft. on tide staff at New Harbor

26.8 ft. below B.M. 4 (1953)

3.5 ft. on tide staff at Port Clyde
23.0 ft. below B.M. 3 (1944)

Height of mean high water above plane of reference is: New Harbor 8.8 ft.
Port Clyde 8.9 ft.

Condition of records satisfactory except as noted below:


Signature

Chief, Tides Branch

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8465 W.D.

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
10-23-59	313	M. Rogers	Applied critical changes only Before After Verification and Review with respect ^{JMK} to H-6853, 6861, 6969.
12/3/59	1203	H.W. Burgoyne	Before After Verification and Review Applied Crit Corrs only
12/4/59	1106	J.W.M.	Before After Verification and Review Examined - not applied at this time.
12/15/59	1204	Jenn	Before After Verification and Review Compared with Partially applied. ^{dup 313 #12} ^{JMK}
5-8-63	1203 Recon	M. Rogers	All critical work fully applied Before After Verification and Review
11-4-64	1203 Rec	H. Keeler	Part. appd. Before After Verification and Review ^{before} but, not inspected ^{JMK}
8/9/65	314	H. K.	Before After Verification and Review
2/16/66	1204	John P. W. L.	Before After Verification and Review Fully applied ^{JMK}
11/6/67	313	William H. Mull	Before After Verification and Review Fully applied
3/12/68	1204	J.W. D. Ailey	Before After Verification and Review Fully applied
9/24/68	1203	D. Svendsen	After Verif. & Review - Fully applied thru Chart 313. Drg 16 b on 1203 Drg # 23

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.