

# 8846

Diag. Cht. No. 1209-3.

Form 504

U. S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. WH-12.5-1-65 Office No. H-8846

### LOCALITY

State Massachusetts

General locality South Coast of Mass.

Locality Muskeget Channel & Wasque  
& Mutton Shoals

19 65

### CHIEF OF PARTY

James P. Randall, LCDR, USESSA

### LIBRARY & ARCHIVES

29 FEB 1968

DATE

USCOMM-DC 5087

8846

HYDROGRAPHIC TITLE SHEET

H-8846

INSTRUCTIONS - 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.

WH-12.5-1-65

State Massachusetts

General locality South Coast of Massachusetts

Locality Muskeget Channel and Wasque Shoal

Scale 1:12,500 Date of survey 1965

Instructions dated 3/11/63, 19/6/63, 7/4/64, Project No. OPR-369  
& 23/4/65

Vessel WHITING

Chief of party LCDR James P. Randall

Surveyed by Ship's Personnel

Soundings taken by echo sounder, ~~MATHEMATICAL~~

Graphic record scaled by Ship's Personnel

Graphic record checked by Ship's Personnel

Protracted by Fred Bean (Norfolk Processing Branch)

Soundings penciled by Fred Bean

Soundings in ~~XXXXX~~ feet at MLW ~~XXXXX~~

REMARKS:

*J. J. G.*

DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY H-8846  
FIELD NO. WH-12.5-1-65

Muskeget Shoal & Wasque Shoal  
Martha's Vineyard, Mass.

USC&GSS WHITING  
Scale: 1:12,500

LCDR James P. Randall  
Commanding

Surveyed By:

LCDR James P. Randall  
LTJG J. D. Boon  
LTJG J. E. Dropp  
LTJG R. M. Petryczanko  
ENS P. L. Richardson

A. Project

The authority for this survey is contained in revised instructions for Project OPR-369 Nantucket Sound, Massachusetts, dated 11 March 1963, and amended 19 June 1963, and supplemented on 7 April 1964 and 23 April 1965.

B. Area Surveyed

The area surveyed is included between Latitudes  $41^{\circ} 15' 30''$ N and  $41^{\circ} 20' 30''$ N and between Longitudes  $70^{\circ} 18' 30''$ W and  $70^{\circ} 30' 30''$ W. The survey covers the area southwest of Muskeget Island westward to and due south of Katama Bay entrance. The survey covers Mutton Shoal, Wasque Shoal, and Muskeget Channel, as far south as whistle buoy #1. Hydrography began on 24 June and the sheet was finished on 27 August 1965.

The adjoining contemporary surveys are H-8845 (1:10,000, 1964-65) to the east and H-8847 (1:20,000, 1965) to the west. The prior surveys are:

H-8820	1:10,000	1964
H-8631	1:10,000	1960-61
H-1844 (area surveyed)	1:20,000	1888
H-6446	1:40,000	1930-9

Soundings from these surveys and the chart are entered on the boatsheet in azure blue pencil.

### C. Sounding Vessels

Soundings were taken using the WHITING's Launch I on the entire sheet except from Longitude  $70^{\circ} 29' 30''$ W to the western edge of the sheet which was completed by Launch II. Launch I used lower case blue day letters and Launch II used lower case red day letters.

### D. Sounding Equipment

Launch I and II used Raytheon DE-723 fathometers, units #250 and #262 respectively during this project. Corrections to the fathometer soundings were obtained from bar checks averaged over selected time intervals. All fathometer corrections are presented in Table I, and also Report on Corrections to Echo Soundings.

### E. Smooth Sheet

The smooth sheet projection and HIRAN curves will be drawn by the processing office of the Atlantic Marine Center.

### F. Control

HIRAN electronic positioning equipment was used to control all hydrography on this sheet. The shore station sites used were located over 3rd order traverse stations MAD 1965, POGE 1961, and CHAP 1965. CHAP 1965 was used with MAD 1965 to work sheet WH-12.5-1/65 from Longitude  $70^{\circ} 25' 30''$ W westward. Following are the locations of the three stations:

	POGE 1961	MAD 1965
Latitude	$41^{\circ} 25' 19.918''$ N	$41^{\circ} 16' 13.494''$ N
Longitude	$70^{\circ} 27' 06.981''$ W	$70^{\circ} 12' 18.018''$ W

	CHAP 1965
Latitude	$41^{\circ} 21' 10.734''$ N
Longitude	$70^{\circ} 27' 15.259''$ W

HIRAN calibrations were accomplished by comparing simultaneous electronic and visual positions. Visual positions were determined by sextant fixes (a strong three point fix with a good check angle) and plotted on a 1:10,000 mylar calibration sheet with a steel protractor. Comparisons were taken in sets of ten observations each, and were taken at maximum and minimum distances from the station. A graph was constructed from the data, and corrections entered in the sounding volumes. For more detailed information see HIRAN REPORT - OPR-369 - 1965.

### G. Shoreline

There is no shore line on this sheet. *Shoreline has been put on the verified survey from the following T-sheets. T-11216*

### H. Crosslines

Crosslines were run on the POGE and CHAP arcs in the appropriate areas and to the extent of about 8.2% of the regular scheme of sounding lines. All crosslines were in good agreement except slight differences were observed in areas where two tide areas overlapped. These areas should come into agreement when actual tides are used on the smooth sheet. The Washington office divided the sheet into an eastern half and western half for tide reduction purposes.

### I. Junctions

The north edge, western half of sheet, junctions with prior surveys H-8820 and H-8631. The area covered by H-8820 seems to have shoaled 2 - 4 feet along its entire length. The area covered by H-8631 is within an agreement of one foot. *Junction has been made with H-8820.*

*Junction with H-8631 has not been made at this time. even*

The northeast quadrant of sheet H-8846 was run by a prior survey H-8631 (1960-61) and the junction is good in this area to within 1 - 2 feet. The shoal area at Lat.  $41^{\circ} 19.3' N$ , Long.  $70^{\circ} 23.1' W$  seems to have moved north one tenth of a mile. The corner, Lat.  $40^{\circ} 17' 45'' N$ , Long.  $70^{\circ} 23' 00'' W$  seems to have deepened by 1 - 2 feet and from this position eastward to Long.  $70^{\circ} 18' 30'' W$  the junction is within 1 - 2 feet of the prior survey H-8631. The shoal in area Lat.  $40^{\circ} 17' 45'' N$ , Long.  $70^{\circ} 20' 30'' W$  seems to have moved eastward 400 meters.

The eastern edge of sheet junctions with H-8845, and seems to agree within 1 - 2 feet except for a  $\frac{1}{2}$  mile area at Lat.  $41^{\circ} 15.5' N$  to  $41^{\circ} 16.0' N$  where the 60 foot depth curve appears to have shifted causing a disagreement of 2 - 3 feet. *Junction has been made with H-8845. even*

The southern edge of sheet junction with H-6446 and is in agreement with this prior survey throughout the length of the southern edge of the sheet.

The western edge of sheet junctions with H-8847 by a good overlap. \*The junction soundings agree within one foot.

\* Smooth sheet soundings disagree by 2 to 3 ft. in overlap.

#### J. Comparison with Prior Survey

The prior survey of this area is H-1844 (1888). The data on this survey was compared with the data on Charts 1209 and 264 and found to be basically the same. The sandy bottom of the area shifts from year to year. The resultant of these many migrations is the difference between this survey and charts 1209 and 264.

#### K. Comparison with the Chart

Shoaling in area Lat.  $41^{\circ} 17.5'N$ , Long.  $70^{\circ} 21.0'W$  has extended the fingers of the existing shoals about  $\frac{1}{2}$  mile in a southwest direction.

The large shoal which starts at Lat.  $41^{\circ} 17.6'N$ , Long.  $70^{\circ} 22.5'W$  and runs 2 miles in a southwesterly direction has shifted  $\frac{1}{4}$  mile in a southeasterly direction throughout its length.

Mutton Shoal (near center of chartlet) has changed shape. The northwest corner has shifted east and shortened by  $\frac{1}{2}$  mile. The smaller shoals to the southwest of Mutton Shoal no longer exist.

Northeast and  $\frac{1}{4}$  mile from the R"2" buoy in Muskeget Channel a shoal area has developed showing about 8 feet of water where there used to be 12 - 18 feet of water.

A 12 foot sounding was recorded at Lat.  $41^{\circ} 18.1'N$ , Long.  $70^{\circ} 25.5'W$ . A series of sand ridges has built up in this area showing depths 10 feet less than the prior survey and charts. This shoaling is most predominant within a half mile radius of the 12 foot sounding. The 30 foot curve near the 12 foot sounding has shifted eastward.

The southeast quarter of Wasque Shoal has shifted and extended until it has almost reached Lat.  $41^{\circ} 18.0'N$ , Long.  $70^{\circ} 27.5'W$ . The following positions and soundings delineate the eastern edge of Wasque Shoal, which has undergone major changes:

<u>Latitude</u>	<u>Longitude</u>	<u>Boat Sheet Sounding</u>	<u>Charted</u>
$41^{\circ} 16' 25''N$	$70^{\circ} 27' 21''W$	12' <sup>11</sup>	22'
$41^{\circ} 18' 06''N$	$70^{\circ} 27' 30''W$	9' <sup>5</sup>	22
$41^{\circ} 19' 00''N$	$70^{\circ} 26' 18''W$	6' <sup>5</sup>	30

Skiff Island shown on Chart 1209 does not exist and is covered by 1 - 3 feet of water. Chart 264 does not indicate an island as is correct. A Chartlet of this area is found as Table III.

#### M. Aids to Navigation

The floating aids to navigation were compared with C&GS charts 1209 and 264 and their charted locations were found to be adequate.

#### N. Tides

The tide gage used to reduce the soundings on this survey was the standard tide gage at New London, Connecticut. The Marine Data Division furnished hourly heights from this tide station. ~~Survey H-8846 was divided into two parts for the purpose of tide reduction. This division was made on the 10 mile arc of HIRAN station MAD. The 10 mile arc was chosen because it most closely defines the ideal division between the major tidal areas.~~

~~The western half of the sheet will have used New London with  $\frac{1}{2}$  hour in time and 0.4 range ratio. The eastern half of the sheet will have used New London with  $+1\frac{1}{2}$  hours in time and 0.6 range ratio. Copy of letter will be found in Appendix. Mean low water above staff zero was 3.4 feet for all hydrographic days.~~

#### O. Other

Settlement and squat corrections are presented in Table IV.

#### P. Adequacy of the Survey

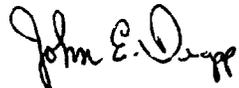
This survey is complete and adequate for charting and should supersede all prior surveys of the area.

Q. Statistics

<u>Vessel</u>	<u>Number of Positions</u>	<u>Nautical Miles Sounding Lines</u>	<u>Number of Bot. Sam.</u>
Launch I	4599	898.1	87
Launch II	<u>418</u>	<u>98.2</u>	<u>7</u>
Totals	<u>5017</u>	<u>996.3</u>	<u>94</u>

Total area surveyed: 34.94 square nautical miles

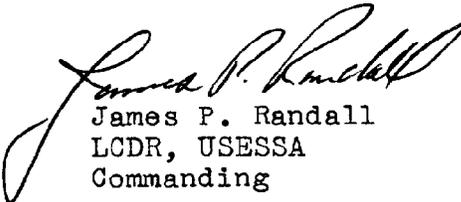
Respectfully submitted,



John E. Dropp  
LTJG, USESSA

APPROVAL SHEET

The boatsheet and records for the area surveyed are complete and approved. The boatsheet and sounding volumes were examined daily during the survey. The survey is complete and adequate for charting and should supercede all prior surveys.

  
James P. Randall  
LCDR, USESSA  
Commanding

# VELOCITY CORRECTIONS

M #1 FATHOMETER #250

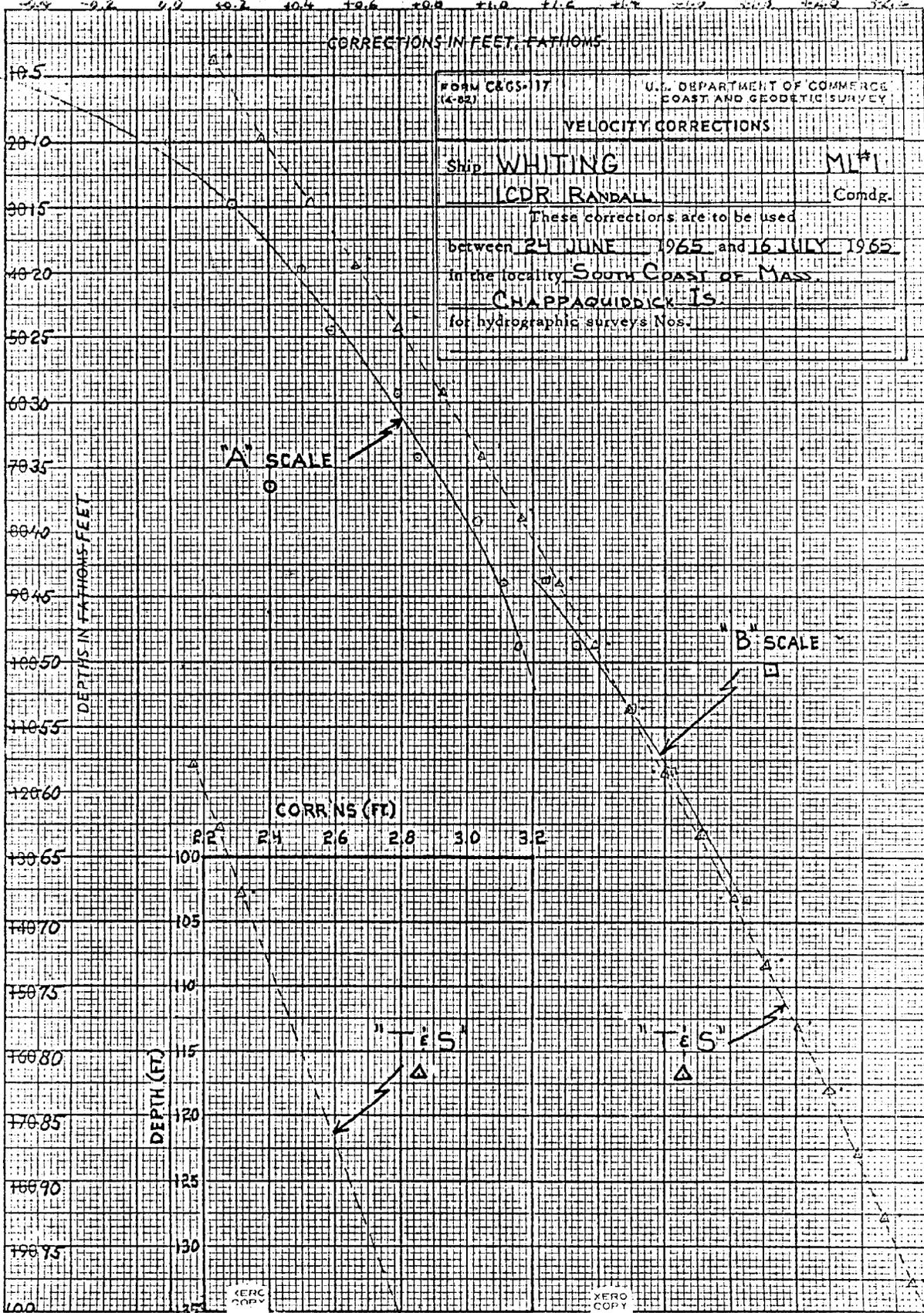
24 JUNE - 16 JULY 1965

	FATH. DEPTH	CORRN
"A" SCALE	< 7.1	-0.4
	7.1 - 9.6	-0.2
	9.6 - 12.9	0.0
	12.9 - 17.6	+0.2
	17.6 - 23.8	+0.4
	23.8 - 31.1	+0.6
	31.1 - 39.1	+0.8
	39.1 - 51.4	+1.0

"B" SCALE	< 42.4	+1.0
	42.4 - 50.1	+1.2
	50.1 - 58.1	+1.4
	58.1 - 67.1	+1.6
	67.1 - 77.9	+1.8
	77.9 - 88.9	+2.0
	88.9 - 101.6	+2.2
	101.6 - 115.1	+2.4
	115.1 - 128.6	+2.6
		128.6 <

COMP. *RMP*  
- *JKD*

1 inch equal 4 fathoms for deep water and 1 inch equal 0.4 fathoms for shoals.



(For deep water add a 0 to those figures)

358-10 1/2  
 MADE IN U.S.A.

XERO COPY

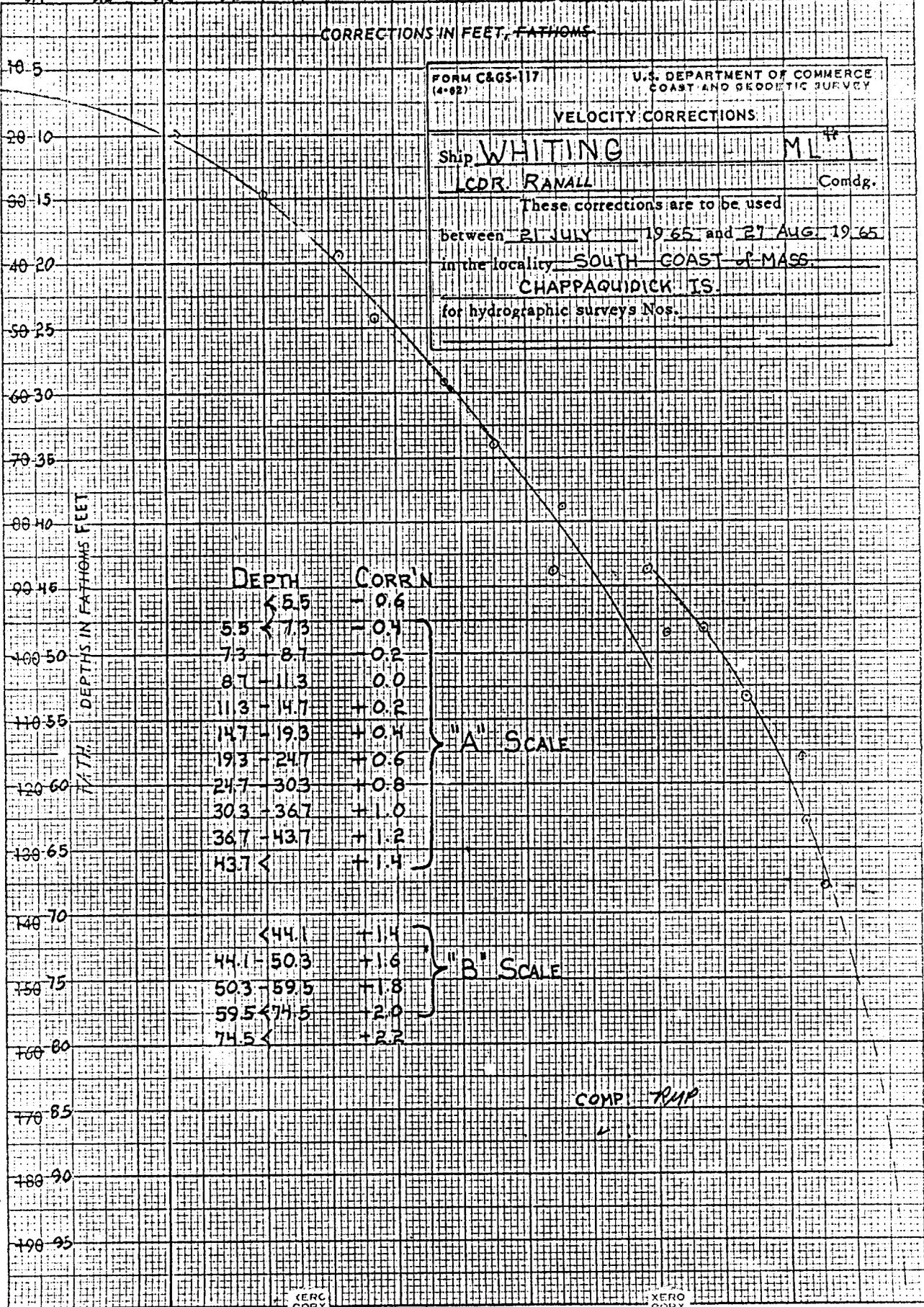
(Let 1 inch equal 4 fathoms for deep water and 1 inch equal 0.4 fathom for shoal.) WH-125-1-65

-0.4 -0.2 0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2

CORRECTIONS IN FEET, FATHOMS

FORM C&GS-117 (4-62)	U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY
VELOCITY CORRECTIONS	
Ship <b>WHITING</b>	<b>ML</b>
<b>LCDR. RANALL</b>	Comdg.
These corrections are to be used between <u>21 JULY</u> 19 <u>65</u> and <u>27 AUG</u> 19 <u>65</u> in the locality <u>SOUTH COAST of MASS.</u> <u>CHAPPAQUIDICK IS.</u> for hydrographic surveys Nos.	

(For deep water add a 0 to these figures)



MADE IN U.S.A.  
 W. W. & F. W. INCORPORATED  
 BALTIMORE, MARYLAND  
 & EDGAR CO.

"A" SCALE

"B" SCALE

COMP. RUP

XERO COPY

XERO COPY

XERO COPY

COH 265

5012 31

(Let 1 inch equal 4 fathoms for deep water and 1 inch equal 0.4 fathom for shoal.)

-1.0

20

+1.0

+2.0

+3.0

+4.0

CORRECTIONS IN FEET, FATHOMS

10.5  
20.0  
30.5  
40.20  
50.25  
60.30  
70.35  
80.40  
90.45  
100.50  
110.55  
120.60  
130.65  
140.70  
150.75  
160  
170  
180  
190

DEPTH IN FATHOMS

FORM C&GS-117 (4-52)

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

VELOCITY CORRECTIONS

Ship: WHITING MLT

ICDR. RANDALL Comdg.

These corrections are to be used  
between 21 JULY 1965 and 26 AUG 1965  
in the locality \_\_\_\_\_

for hydrographic surveys Nos. \_\_\_\_\_

DEPTH	COR
A SCALE	
251	-0.2
30	0.0
71	+0.2
89	+0.4
112	+0.6
144	+0.8
188	+1.0
255	+1.2
309	+1.4
382	+1.6
477	+1.8
495	+2.0
448	+2.2
470	+2.4
708	+2.6
B SCALE	
425	+2.8
426	+1.6
462	+1.8
491	+2.0
528	+2.2
556	+2.4
585	+2.6
609	+2.8
631	+3.0
672	+3.2
678	+3.4
692	+3.6
709	+3.8

DRAWN BY PFD  
CHECKED BY RR

20 X 20 TO THE INCH 46 MAX  
7 X 10 INCHES  
KEUFFEL & ESSER CO.

(For deep water add a 0 to these figures)

HLRAN CORRECTIONS

WH-12.5-1-65

ML #1

		Miles	Corr'n
MAD	14 Jun - 12 Jul	0.000 - 1.999	+0.010
		2.000 - 5.219	+0.005
		5.200 - 8.999	0.000
		9.000 - 12.229	-0.005
		12.230 - 15.999	-0.010
		16.000 - 19.124	-0.015
		19.125 - 23.000	-0.020
	13 Jul - 11 Aug	0.000 - 17.999	-0.005
		18.000 - 20.000	0.000
	11 Aug - 31 Aug	0.000 - 22.000	-0.005
POGE	14 Jun - 27 Jun	0.000 - 6.999	-0.050
		7.000 - 12.399	-0.055
		12.400 - 20.500	-0.060
	28 Jun - 26 Jul	0.000 - 3.299	-0.010
		3.300 - 5.249	-0.015
		5.250 - 7.669	-0.020
		7.670 - 9.399	-0.025
		9.400 - 10.079	-0.030
		10.080 - 13.799	-0.035
		13.800 - 16.259	-0.040
16.260 - 18.279	-0.045		
18.280 - 20.600	-0.050		
CHAP	27 Jul - 10 Aug	0.000 - 4.539	-0.010
		4.540 - 8.249	-0.015
		8.250 - 13.199	-0.020
		13.200 - 16.799	-0.025
		16.800 - 21.730	-0.030
	11 Aug - 31 Aug	0.000 - 2.119	-0.015
		2.120 - 6.819	-0.020
		6.820 - 10.399	-0.025
		10.400 - 15.199	-0.030
		15.200 - 18.609	-0.035
18.610 - 22.700	-0.040		

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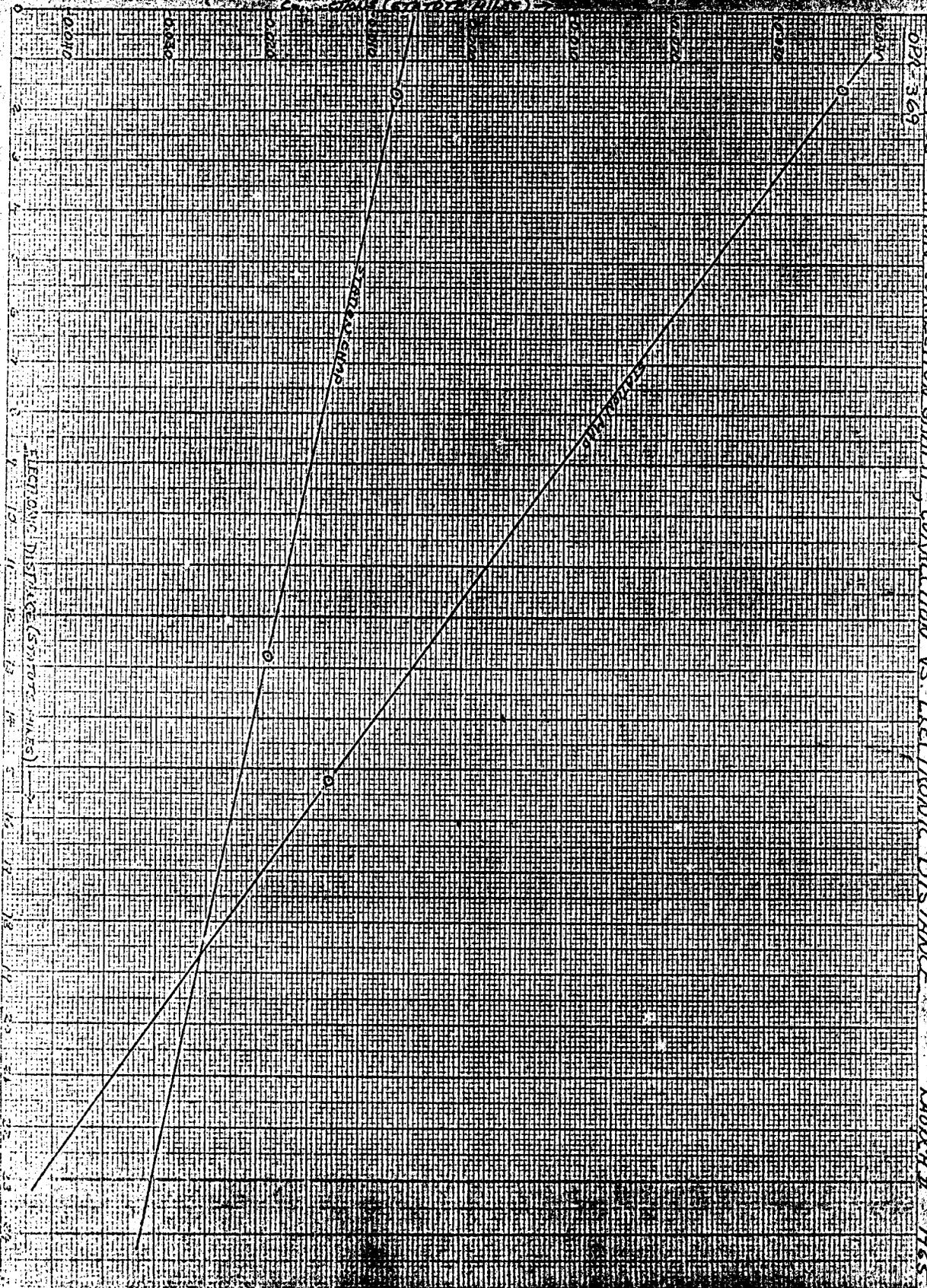
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HIRAN CORRECTIONS LAUNCH II  
OPR-369 1965

Station MAD

Electronic dist. (statute miles)	Correction (statute miles)
1.400-2.749	+0.035
2.750-4.109	+0.030
4.110-5.499	+0.025
5.500-6.849	+0.020
6.850-8.209	+0.015
8.210-9.599	+0.010
9.600-10.999	+0.005
11.000-12.349	0.000
12.350-13.709	-0.005
13.710-15.099	-0.010
15.100-16.499	-0.015
16.500-17.829	-0.020
17.830-19.200	-0.025

Station CHAP

0.000-2.049	-0.005
2.050-6.659	-0.010
6.660-11.279	-0.015
11.280-15.899	-0.020
15.900-20.500	-0.025

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# Memorandum

TO : The Commanding Officer  
USC&GS Ship WHITING

FROM : Chief, Marine Data Division

SUBJECT: Tidal Data OPR-369, 1965

DATE: October 1, 1965

In reply refer to:  
232W-260-CSS 14

In reply to your memorandum of September 19, 1965, mean low water at Squibnocket Beach corresponds to 0.7 feet on the 1965 tide staff. Hourly heights of the tide at Squibnocket should be used to control Sheet WH 20-2-65, between Squibnocket Beach and Wasque Shoal. *10-21-65 SEE LETTER OF OCT. 28, 1965*

Enclosed are copies of the hourly heights for New London, Connecticut, which should be used for the sheets with corrections as listed below:

Sheet WH 20-2-65, Eastward of Wasque Shoal (and western half of Sheet WH 12.5-1-6.5) use New London with  $+\frac{1}{2}$  hour in time and 0.4 range ratio. *not used*

Sheet WH 12.5-1-6.5 Eastern Half, use New London with  $+\frac{1}{2}$  hour in time and 0.6 range ratio. *Used on entire sheet*

Sheet WH 10-3-64

Inside Maddaket Harbor, use New London with +2 hours in time and 0.9 range ratio.

Outside Maddaket Harbor, use New London with  $+1\frac{1}{2}$  hours in time and 0.6 range ratio.

*William D. Barbee*  
William D. Barbee

Enclosures



BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

XERO COPY

XERO COPY

XERO COPY

# SQUAT & SETTLEMENT

ML# 1+2

f.p.m.	ROD	ΔTIDE	f.p.m.	Ave. ROD - Ave. TIDE	Ave. INIT.	CORR'N
0000	6.530	0.000	0000	6.531 - 6.531 =		+0.000
1000	6.720	0.027	1000	6.693 - 6.531 =		+0.162
1500	6.500	0.079 <del>0.053</del>	1500	6.697 - 6.531 =		+0.166
2000	6.750	0.105 <del>0.079</del>	2000	6.645 - 6.531 =		+0.114
2500	6.600	0.132 <del>0.105</del>	2500	6.446 - 6.531 =		+0.085
1500	6.850	0.157 <del>0.132</del>				
2500	6.640	0.183 <del>0.157</del>				
1500	6.910	0.209 <del>0.183</del>				
0000	6.830	0.235 <del>0.209</del>				
0000	6.860	0.393 <del>0.23</del>				
2500	6.830	0.417				

———— CORRECTIONS FROM GRAPH ————

f.p.m.	CORR'N
000-500	= 0.0
500-2025	= +0.2
2025-2500	= 0.0

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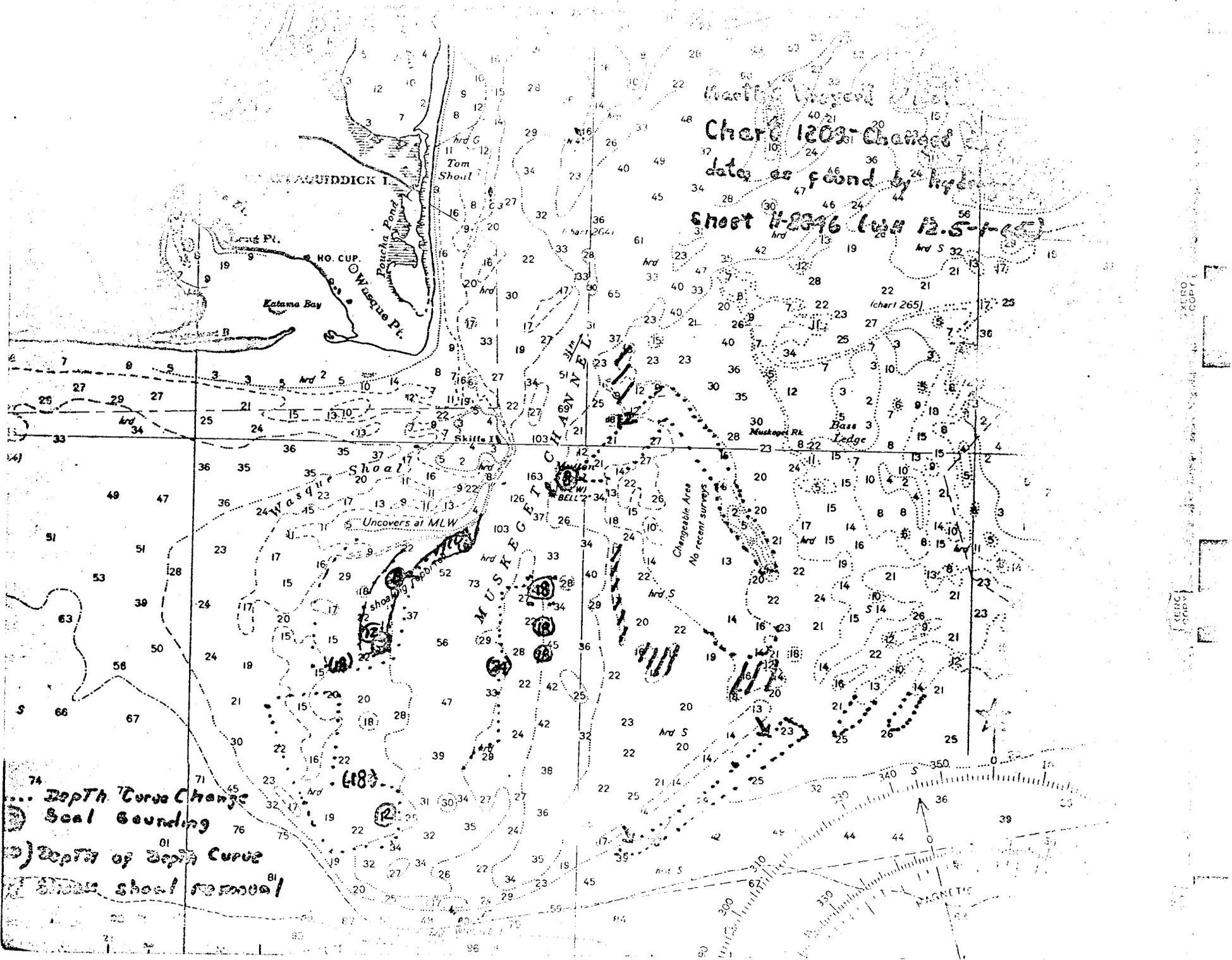


Chart 1203 - Changed  
 dates as found by hydro  
 Sheet 1-2296 (1912.5-1-1913)

74  
 ... Depth Curve Change  
 Seal Bounding  
 01  
 0) Depth of Depth Curve  
 81  
 Shows shoal removal

SERCO COPY  
 SERCO COPY  
 SERCO COPY

TIDE NOTE FOR HYDROGRAPHIC SHEET

February 21, 1967

~~National Chart Division~~ Atlantic Marine Center

Plane of reference approved in  
27 volumes of sounding records for

HYDROGRAPHIC SHEET 8846

Locality: Muskeget Channel and Wasquet Mutton Shoals  
South Coast, Massachusetts

Chief of Party: J. P. Randall, 1965

Plane of reference is mean low water

Tide Station Used (Form C&GS-681):

New London, Connecticut

at the working grounds  
Height of Mean High Water above Plane of Reference, is as follows:

1.6 feet

Remarks

see attached sheet

The corrections were made to apply  
reducers from New London gage with  
time difference of  $+1\frac{1}{2}$  hrs, and range ratio  
of 0.6 to entire sheet.

ERC 3/4/68

J. M. Simmons  
Chief, Tides and Currents Branch

Note: Portion of this survey which overlaps H-8847 (on the west) is superseded by H-8847  
because of incomplete tidal information. See review H-8847. DRE 1-15-69

Tide reducers for the following positions have been revised and verified:

Volume 3 e-54 to e-150  
Volume 4 e-151 to e-159; f-17 to f-83; h-1 to h-27  
Volume 5 h-28 to h-85  
Volume 6 k-91 to k-107  
Volume 7 m-59 to m-75; N-93 to N-145  
Volume 8 N-146 to N-180  
Volume 10 t-27 to t-85  
Volume 11 U-21 to U-111  
Volume 12 V-58 to V-196  
Volume 13 W-86 to W-143  
Volume 14 y-79 to y-148  
Volume 15 z-1 to z-46  
Volume 16 aa-3 to aa-33; ba-1 to ba-27; ca-29 to ca-49  
Volume 17 da-1 to da-57; ca-49 to ca-75  
Volume 18 ea-16 to ea-146  
Volume 19 fa-61 to fa-193  
Volume 20 fa-194 to fa-212; ha-1 to ha-91  
Volume 21 ka-1 to ka-41  
Volume 22 ka-145 to ka-163; la-127 to la-145  
Volume 24 Na-1 to Na-65  
Volume 25 b-38 to b-119  
Volume 26 d-1 to d-46

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NORFOLK HYDROGRAPHIC PROCESSING BRANCH  
ADDENDUM  
To Accompany

HYDROGRAPHIC SURVEY H-8846 (Wh 12.5-1-65)

GENERAL

Except for the disagreement in soundings mentioned below, this appears to be an excellent basic survey in an area of irregular and highly changeable bottom.

SOUNDINGS

In areas of comparatively smooth bottom where depth checks are meaningful, a study of sounding agreement at crossings and along parallel sounding lines shows numerous apparent discrepancies of from 1 to 2 feet and in some instances, the disagreement amounted to 4 feet. Soundings were not plotted on the smooth sheet when these extreme instances of disagreement occurred. They are being submitted on rough overlays and are listed by position number in paragraph 31 of the verifier's report.

Much the same condition was experienced on adjoining survey H-8845 (Wh 10-3-64) where, even after the tide corrections had been verified a second time, numerous crossing discrepancies of 1 to 2 feet remained. Furthermore, it will be noted that numerous revisions were made to corrections on this survey during tide verification, and it is believed that the zones were changed from those indicated in paragraph N of this report. *Zones changed as annotated*

Some position displacement may have occurred because of faulty voltage regulators on the control equipment. See paragraph 2 of the accompanying HIRAN report.

CHART COMPARISON

Major changes in depths and bottom configurations have been delineated on enclosed sections of charts 264 and 265.

Respectfully submitted,



Hugh L. Proffitt  
Chief, Hydro Processing Branch

Norfolk, Va.  
Feb. 20, 1968



Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8846

Records accompanying survey: Smooth sheets .1...;  
 boat sheets .1...; sounding vols. 27...; Calibration vols. 1...;  
 Descriptive Reports .1...; graphic recorder envelopes 2-Cahier  
 special reports, etc. ~~Hydro Report~~ OPR 369-1965, ~~Bathometer Report~~  
 .OPR-369-1965.....

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

Number of positions on sheet	5017
Number of positions checked	112
Number of positions revised	0
Number of positions revised (refers to depth only)	
Number of soundings/erroneously spaced	
Number of signals erroneously plotted or transferred	
Topographic details	Time
Junctions	Time 20
Verification of soundings from graphic record	Time 27
Special adjustments	Time

Verification by DAN R. MUNFORD Total time 331 Date 2 Nov. 1967

Reviewed by Time Date

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H-8846

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.
3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.
4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.
5. All items affecting 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 and are a little larger than the adjacent soundings.
8. The metal protractor has been checked within the last three months. *Not Apply. Protracting done with a adessey protractor, Scale 1:12,500*
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.  
*The boat sheet is an excellent guide.*

12. The spacing of soundings as recorded in the records was closely followed.
13. The bottom characteristics were shown on outstanding shoals.  
*Bottom characteristics are sufficient to cover the entire survey.*
14. The reduction and plotting of doubtful soundings were checked.
15. The transfer of contemporary topographic information was carefully examined.
16. All junctions were transferred and overlapping curves made identical.
17. The notation "JOINS H- (1922)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.  
*Junctions with H-8845, and H-8870 have been completed in this office.*
18. The depth curves have been inspected before inking.  
*Curves inspected by H.L. Pruffitt, Supervisor.*
19. All triangulation stations and transfer of topographic and hydrographic signals were checked.
20. Heights of rocks were checked against range of tide.
21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.
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.
25. Degree and minutes values and symbols have been checked.
26. Questionable soundings have been checked on the fathograms.

27. Source of shoreline and signals (when not given in report).  
*Shoreline taken from T-sheets - T-11216, T-10643A*
28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.
29. All aids located, with those on contemporary topographic sheets, have been shown on survey.
30. Depth curves were satisfactory except as follows:
31. Sounding line crossings were satisfactory except as follows:  
*Discrepancies of one to four feet were noted and plotted on tracing paper overlays No. 1 thru 5. It is believed that a combination of possible erroneous tide corrections and voltage regulation problems on the HIRAN sets as described in "Hiran Report OPR-369-1965" would be the most likely cause of these discrepancies. (blue) 8a-13a, 1x-10x, 1e-11e, 48e-50s, 99f-102s, 150u-152u  
1v-5v, 1x-5x, 47x-49x, 1151a-1171a. (red) 50e-52e*
32. Junctions with contemporary surveys were satisfactory except as follows:
33. Condition of sounding records was satisfactory except as follows: *Sounding records was in satisfactory condition.*
34. The protracting was satisfactory except as follows:  
*The protracting was very good.*
35. The field plotting of soundings was satisfactory except as follows: *The field plotting of soundings was satisfactory.*
36. Notes to reviewer:

Verified by *DAN P. MONFORD*

Date *2 Nov 1967*

H-8846

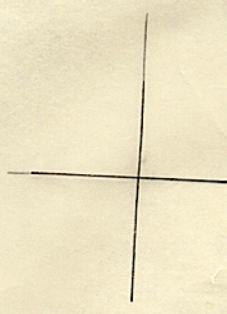
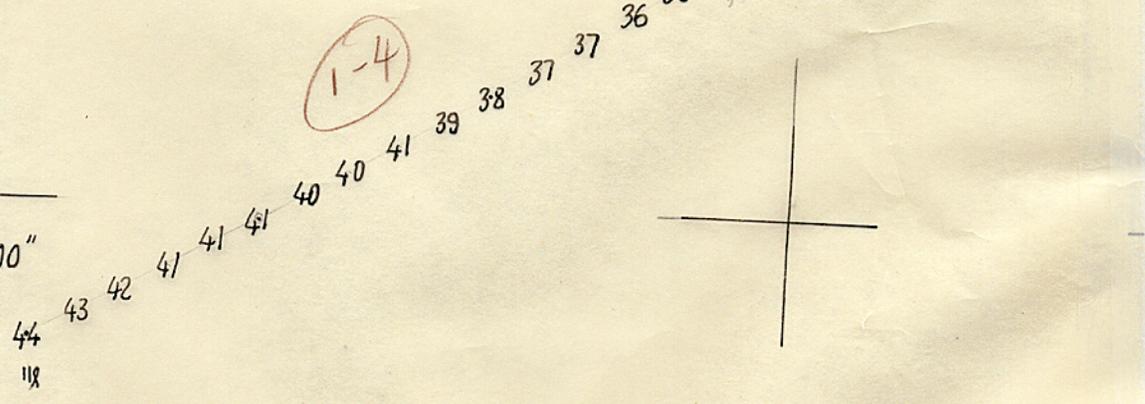
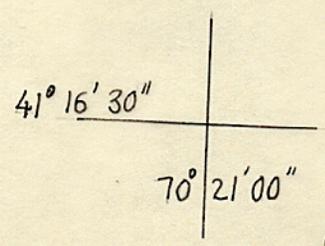
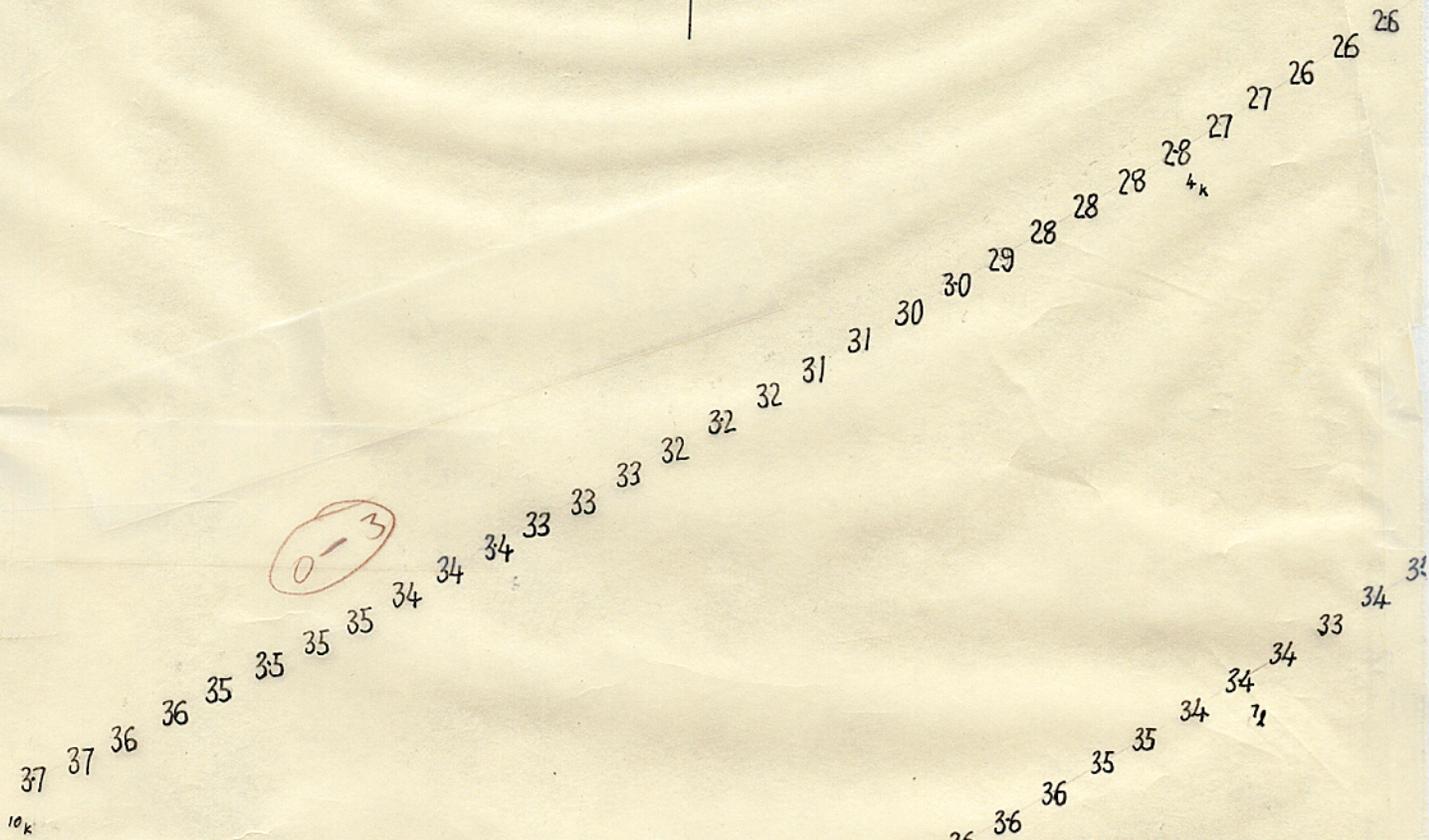
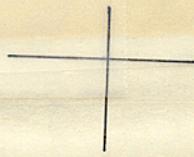
5- Rough overlays -

sounding discrepancies -

1- Chart section -



8846

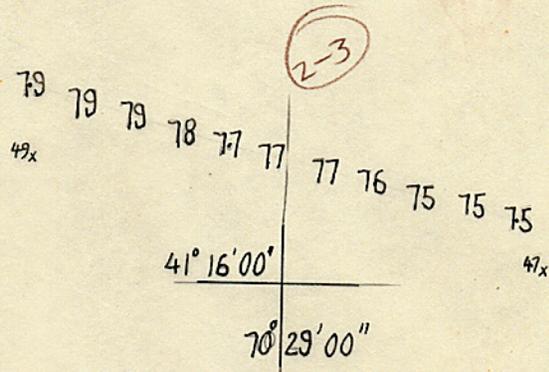


Overlay No. 2

Pos. 4k-10k  
7e-11e



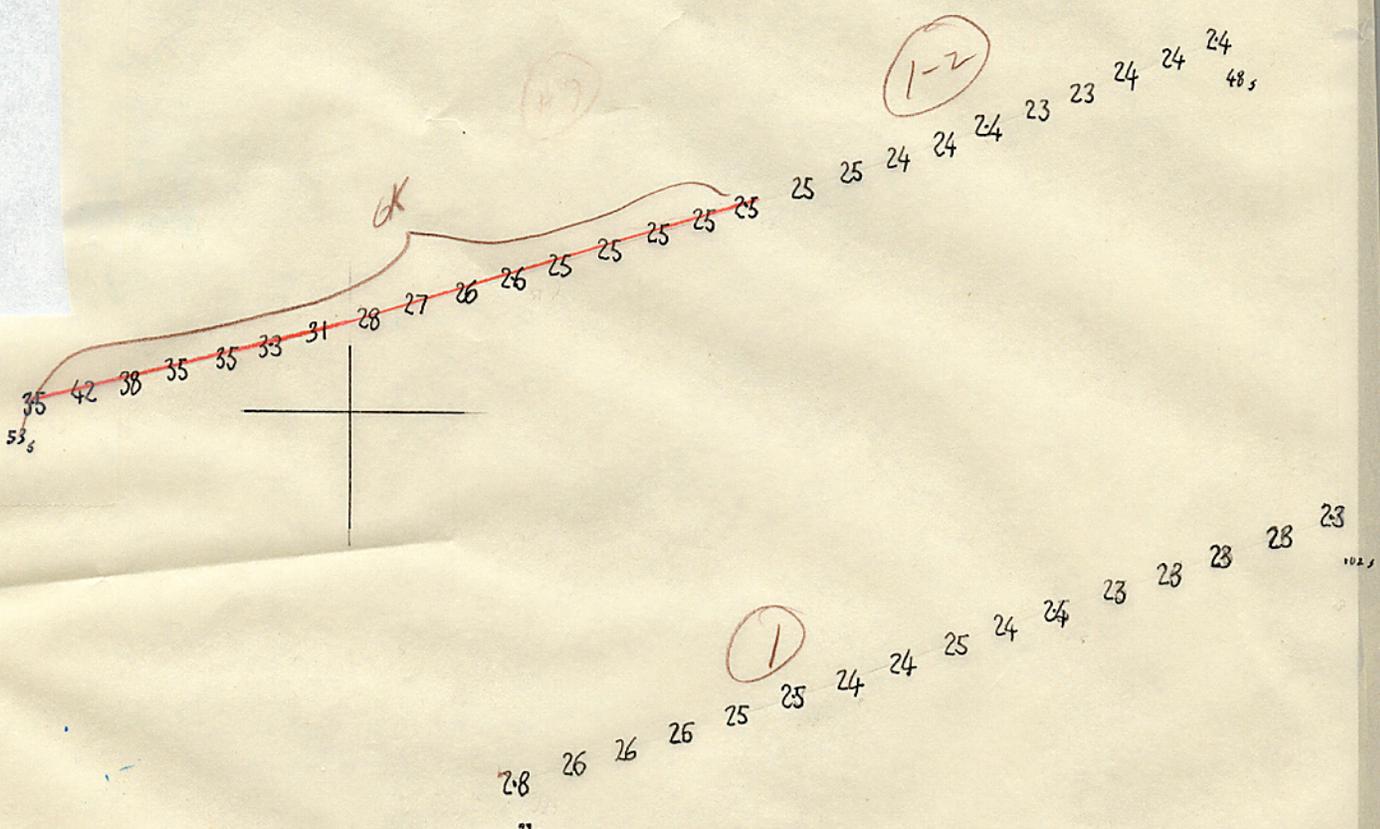
8846



Overlay No. 3

Pos. 47x-49x

8846



41° 17' 30"  
70° 24' 00"

Overlay No. 4

Pos. 48s-53s  
99s-102s

RECORD OF APPLICATION TO CHARTS

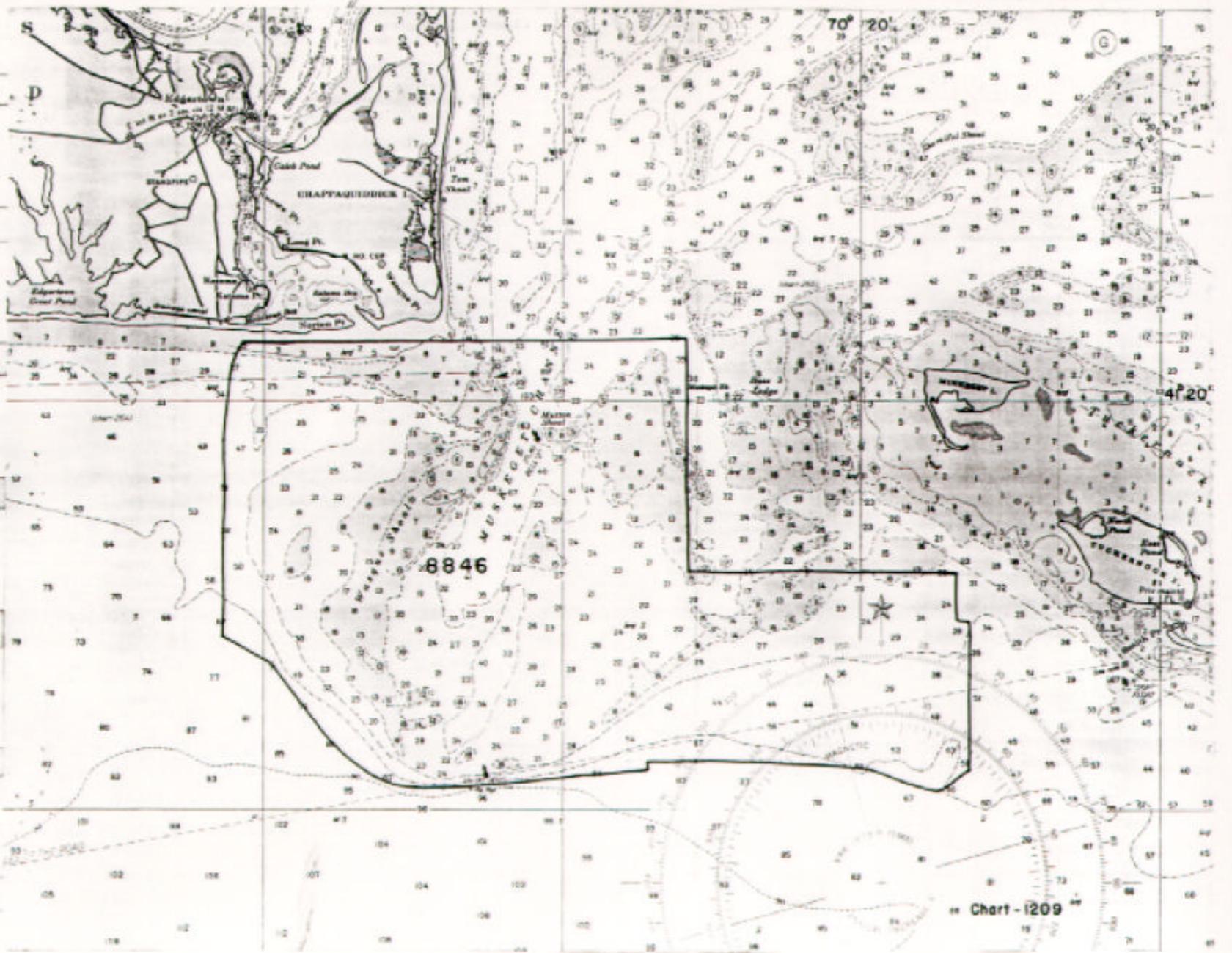
FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8846

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
71	8/68	Clarence Musfeldt	Full Part <del>Before</del> <sup>Before</sup> After Verification Review Inspection Signed Via Drawing No. <i>Completely fully appl'd. applied depths on sheets</i>
70	8/68	Clarence Musfeldt	Full <del>Part</del> Before After Verification Review Inspection Signed Via Drawing No. <i>Completely fully appl'd. applied depths on sheets</i>
261	9/1968	J.McMullan	<del>Full Part Before</del> After Verification Review <del>Inspection Signed Via</del> Drawing No. <i>critical correction appl only</i>
264	9/1968	J.McMullan	<del>Full Part Before</del> After Verification Review <del>Inspection Signed Via</del> Drawing No. <i>critical correction only</i>
265	10/16/68	J.H. Hall	<del>Full Part Before</del> After Verification <del>Review Inspection Signed Via</del> Drawing No. <i>Critical corrections only</i>
1209	10/16/68	J.H. Hall	<del>Full Part Before</del> After Verification <del>Review Inspection Signed Via</del> Drawing No. <i>Critical corrections only off chart chg 264 &amp; 265</i>
1107	10/18/68	Chas S. Forke	<del>Full Part Before</del> After Verification Review <del>Inspection Signed Via</del> Drawing No. <i>No correction</i>
1108	5/3/69	J.S. McMillan	<del>Full Part Before</del> <sup>before</sup> After Verification Review Inspection Signed Via Drawing No. <i>38 - Part thru chg 261 264 No correction added.</i>
261	10/29/69	J. Beeler	<del>Full Part Before</del> <del>After</del> <del>Verification</del> Review Inspection Signed Via Drawing No. <i>Exam; For Junction with H8847; Corr thru H8820; No Corr per this survey</i>
264	10/29/69	J. Beeler	<del>Full Part Before</del> <del>After</del> <del>Verification</del> Review Inspection Signed Via Drawing No. <i>Exam; For Junction with H8847 Corr thru chg 261 - No Corr per this survey</i>
1309	10/29/69	J. Beeler	<del>Part Appl</del> After Verification - Exam - Corr thru chg 264 - Junction with H8847
70	6/30/70	Jeffrey Stuart	<del>Part Appl</del> Fully Appl'd After Verification Exam - No Corr
13241	1/2/92	L. Okerman	Adequately APPLIED, NO FURTHER CORRECTION
13233	9/2/92	<i>[Signature]</i>	adequately applied, no further corrections.



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Chart - 1209