

6861

6861

Form 504	
U. S. COAST AND GEODETIC SURVEY	
DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey	Hydrographic
Field No. 2143	Office No. H-6861 & H-6976
LOCALITY	
State	MAINE
General locality	Muscongus Bay Coast of Maine
Locality	Menbegan I. to Penmaquid Neck Muscongus Bay
1943-44	
CHIEF OF PARTY	
I. E. Rittenburg and W. R. Porter	
LIBRARY & ARCHIVES	
DATE	MAY 17 1945

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-6861

Field No. 2143

State Maine

General locality Muscongus Bay
Coast of Maine

Locality Monhegan I to Pemaquid Neck
Muscongus Bay

Scale 1:20,000 and 1:40,000 Date of survey June - August, 1944
Oct. 1943

Instructions dated Mar. 16, 1943 and Mar. 11, 1944

Vessel M. V. GILBERT and FARIS

Chief of party I. E. Rittenburg and W. R. Porter

Surveyed by I. E. Rittenburg and W. R. Porter

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

Protracted by M. E. Byrd, K. T. Meech, M. J. Langley and G. Barr

Soundings penciled by M. J. Langley and G. Barr

Soundings in ~~fathoms~~ feet at MLW ~~MLW~~

REMARKS: These sheets were processed in the Hydrographic Section of the
S. E. District at Norfolk, Va.

The survey processed on a separate sheet (Formerly H-6976) was
reproduced and printed as an insert on H-6861 after verification and
inking. The original plotting has been placed in Volume 1 of the re-
ords to preserve the position numbers

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET FIELD NO. 2143

PROJECT CS-265

COAST OF MAINE

GILBERT-1943 -44

AUTHORITY AND TIME OF SURVEY:

This survey was made in accordance with original instructions from the Director for Project CS-265 dated May 7, 1941 addressed to the Commanding Officer, OCEANOGRAPHER and amended as follows:

March 11, 1942 addressed to C. O. LYDONIA

June 13, 1942 addressed to C. O. LYDONIA

March 16, 1943 addressed to C. O. LYDONIA

And a further amendment extending the limits of the project eastward to Monhegan Id., Me. (the date of this amendment is *March 11, 1944* not available). Work was done in the early part of October, 1943.

LIMITS AND JUNCTIONS:

The work on this boat sheet is to be coupled with the corresponding work of W. R. Porter (FARIS) to make one smooth sheet as the area was split to allow both vessels to work simultaneously on the same sheet. The area covered by this portion of the survey lies between Latitudes $43^{\circ}45.3'$ and $43^{\circ}48.5'$ and extends eastward from Longitude $69^{\circ}30'$ to Longitude $69^{\circ}20' W$. On the west it joins with Hydrographic Sheet H-~~6730~~^{6858 (1943)}, on the north with the work of W. R. Porter (FARIS). There are no junctions with new surveys on either the east or south.

Joins H-6992 (1944) on east and H-6992 (1944) on south east

CONTROL AND DATUM:

Control consisted entirely of triangulation stations with the exception of two hydrographic stations, HO and KAY, whose positions were transferred from sheet H-~~6730~~⁶⁸⁵⁸. In addition the radio tower on Manana Id. and the beacon on Duck Rocks, called Rad and Beacon respectively, were cut in by sextant cuts, ^{but were} not used this year. It will be necessary, however, to use them next year or whenever the sheet is completed. This survey is on the North American, 1927 Datum.

METHODS:

Exactly the same as for Sheet H-~~6730~~⁶⁸⁵⁸ except for last paragraph, which reads for this sheet as follows:

The general spacing of sounding lines is 200 meters. No development or splits were run as the season closed before this sheet could be completed. It appears, however, that not as much development will be needed on this sheet as was found necessary on other sheets in this locality as the water is generally deeper and the bottom not quite so broken. No cross lines have been run as yet. *Crosslines ran in 1944*

DISCREPANCIES:

None

DANGERS:

None

TIDES:

Reducers for A, B, & C days were obtained from the records of a portable automatic tide gage in operation at Monhegan Id., Maine. Reducers for D & E days were obtained from the records of a standard automatic tide gage in operation at Boothbay Harbor, Maine. Datum planes were furnished by the office. No tidal data sheet is attached as the information is not available. ~~However the actual reducers used are attached.~~

STATISTICS:

Statute miles of sounding lines	256.6
Number of Positions	617
Number of Soundings	continous profile

COMPARISON WITH CHART 1204 and 313:

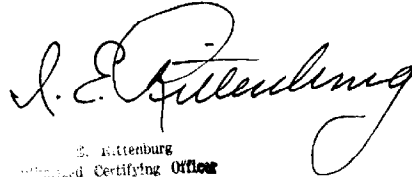
This is not a completed survey as necessary development within the area covered has not been done, therefore a detailed comparison with the existing charts will not be made. Several differences, however, are worthy of note and are listed below.

Sounding	Latitude	Longitude	Charted Depth <small>Prior to revision</small>	Remarks
90 96 ft.	43°47. ⁸ 62'	69°28.0'	124 - 136 ft.	least depth so far on extensive ledge.
108 128 ft.	43°47. ⁵⁸ 62'	69°27.0 ⁵ '	219 ft.	"
41 41 ft.	43°48.50'	69°25.8'	48 ft.	on extension of Moser Ledge. In addition to these soundings there are many other soundings shoaler than those charted, & a better delineation of the limits of the ledge is now available.
52 63 ft.	43°47.85'	69°25. ⁴⁵ 60'	84 ft.	"
64 64 ft.	43°46.62'	69°26.2 ⁸ '	127 ft.	"
49 55 ft.	43°47.6 ⁶ '	69°25.7 ⁸ '	87 ft.	"
4 104 ft.	43°48.0 ³ '	69°24. ⁶ '	117 ft.	

Ledge between Longitude $69^{\circ}24'$ and $69^{\circ}25'$ in Latitude $43^{\circ}47.0'$ not indicated on charts which show depth of 256 - 253 ft. Ledge has $12\frac{3}{4}$ ft. so far.

A much better delineation of the underwater features is available even now with no development. After development necessary is run, shoaler water than listed above may be found.

Corrected values are least depths after development.



J. E. Rittenburg
Qualified Certifying Officer
and Chief of Party

DESCRIPTIVE REPORT

TO ACCOMPANY

Sheet No.2

Project CS - 265 FARIS - 1943

AUTHORITY:

This survey was executed under Instructions dated May 7, 1941 and Supplemental Instructions dated March 16, 1943.

SCOPE:

Muscongus Bay from a junction with LYDONIA surveys of 1943 at Latitude 43 51' southward to a junction with the GILBERT sheet No. 2143 (field) at Latitude 43 48.5' and from a junction with sheet No. 1 (FARIS) 1943, at Longitude 69 30' eastward to Longitude 69 20'.

SURVEY METHODS:

Standard survey methods were used thruout. The hydrography was done on a scale of 1/20:000 using a portable depth recorder. All lines were controlled by sextant fixes on triangulation stations. At least one good bar check was obtained each day and two and three when the operation of the fathometer and weather conditions permitted. Salinities were observed by the MY GILBERT. A tide gage was in operation thru Oct. 7 at Monhegan Island. For the balance of the work, tide reductions were obtained from gages at Boothbay Harbor and Portland, Me.

Most of this hydrography was done in rough weather; swells as high as eight feet were common. The fathometer assigned this vessel operated poorly, as to speed, over considerable portion of this work. This instrument was serviced several times by the Chief Radio Technician of the LYDONIA with only temporary success. Proper notes were made in the record whenever the speed of the machine was in error. An accurate clock was used.

par. 2 of review

Very adverse weather and the end of the Field Season prevented any developing of this area. Approximately four days of development will be necessary to complete this sheet.

Additional development accomplished by Gilbert in 1944

DANGERS:

A 15 ~~12~~ foot sounding (lat. 43° 48.70', long. 69° 25.64') was obtained on Moser Ledge. The least depth charted is 17 feet. 18' found by Gilbert in 1944

A 23 foot sounding (no development) was obtained in Latitude 43 50.73' and Longitude 69 23.7'. 20' found on this shoal by Gilbert in 1944

COMPARISONS:

Many shoaler depths than charted were found. Further developing of these shoal indications is necessary.

*Development done
by Gilbert in 1944*

STATISTICS:

Area in square miles (statute)	20.6
Miles of sounding lines (statute)	387.9
Number of positions	808
Continuous profile	

Respectfully submitted,

Wilbur R. Porter,
Lieut. Comdr., C&GS.

WRP/r

A D D E N D U M

to accompany

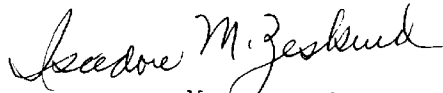
HYDROGRAPHIC SHEET NO. H-6861

1943 Season

The northern half of this sheet was surveyed by the M. V. FARIS, while the southern half was surveyed by the M. S. GILBERT.

While protracting the northern half of this sheet which was accomplished by the M.V. FARIS, it was noticed that the position of the lines on the boat sheet did not always correspond with that shown on the smooth sheet. A conference was held with Lt. Comdr. W. R. Porter, who was in charge of this work, and who, during the processing of this sheet was working in the vicinity of Norfolk, relative to this apparent discrepancy. The protractors aboard the FARIS were checked and it was discovered that one of them was out of adjustment in the neighborhood of 30 minutes. The conclusion was, therefore, reached that this protractor was out of adjustment during the plotting of that portion of the boat sheet accomplished by the FARIS.

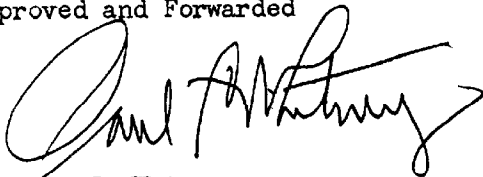
Respectfully submitted,



Isadore M. Zeskind
Associate Cartographic Engineer

Norfolk, Va.
Feb. 2, 1944

Approved and Forwarded



Paul C. Whitney
Supervisor, S. E. District

ADDENDUM

HYDROGRAPHIC SHEETS NOS. H-6861 & H-6976

Due to the fact that Smooth Sheet H-6861 did not extend far enough south to include all the additional work accomplished on H-6861 during the 1944 season, it was necessary to plot that work which fell off H-6861 on H-6976. (This additional sheet was made in accordance with the authority contained in the Director's letter dated August 26, 1944, reference 82-DRM).

The work on
H-6976 has
been made
part of H-6861
(See insert)

Volumes No. 6 & 7 contain hydrography for Surveys H-6861 and H-6976, whereas, volumes No. 8, 9, 10 and 11 contain hydrography for sheet H-6861 only.

The additional work for the 1944 season was accomplished by the M. V. GILBERT in accordance with the Supplemental Instructions, dated March 11, 1944, for Project CS-265.

It is felt that all the work necessary to complete this survey has been accomplished and no additional work is necessary.

Attention is directed to the erratic time between positions as marked on the fathogram 79 - 81 W (See page 28, volume No. 6). This was due to the tension spring slipping and was not due to erratic speed of the depth recorder.

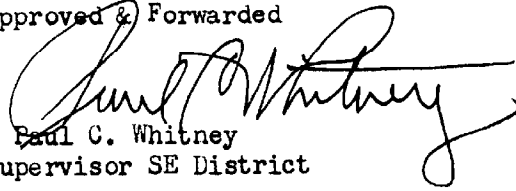
The additional work appears to be in fair agreement with the previous work. There are instances where a slight displacement of soundings would give a better agreement of adjacent hydrography. The bottom in the area covered by this survey is very irregular.

Respectfully submitted,


Isadore M. Zeskind
Cartographic Engineer

Norfolk, Va.
May 15, 1945

Approved & Forwarded


Paul C. Whitney
Supervisor SE District

H-6596

TIDAL NOTE
(1944 season)

The tide reducers used this year were from the Portland, Maine gage and a portable gage operated by this party in Boothbay Harbor, Maine. The gage in Boothbay Harbor was installed June 12, 1944 in Latitude $43^{\circ} 51'05''$; Longitude $69^{\circ} 37'16''$. The MLW on the tide staff as furnished by the Washington Office was 2.4 feet. The hourly heights for the Portland gage was furnished by the Washington Office. The reducers for June 2, 8, and 9 were taken from this data. The reducers for the other days were entered in the sounding volumes direct from the tide marigrams as recorded by the gage in Boothbay Harbor. ~~Copies of our authority to use these tide reducers are attached to the Descriptive Report.~~

~~71-6978~~

STATISTICS FOR HYDROGRAPHIC SURVEY H-6861
(1944 season)

VOLUME	DAY LETTER	DATE 1944	NUMBER OF POSITIONS	STATUTE MILES OF SOUNDING
1	F	June 2	145	59.6
1	G	June 8	120	49.3
1 & 2	H	June 9	149	57.5
2	J	June 13	27	11.9
2	K	June 14	159	59.9
2	L	July 3	123	32.6
3	M	July 4	68	19.0
3	N	July 7	167	55.5
3 & 4	P	July 14	166	64.7
4	Q	July 17	180	58.2
4	R	July 18	199	46.6
5	S	July 19	166	38.0
5	T	July 20	59	20.0
5	U	August 1	123	44.4
5 & 6	V	August 2	125	28.7
6	W	August 7	121	46.8
6	X	August 10	115	23.3
TOTALS			2212	716.0

All soundings taken with a type 808A Depth Recorder
Total area 30.6 square statute miles

H-6976

DEPTH RECORDER REDUCERS FOR SHEET NO. 6861

DATE CORRECTIONS	June 2, 1944 F-day		June 8, 1944 G-day		June 9, 1944 H-day		June 13, 1944 J-day		June 14, 1944 K-day		DATE CORRECTIONS
	FEET	FATHOMS	FEET	FATHOMS	FEET	FATHOMS	FEET	FATHOMS	FEET	FATHOMS	
-1.5											-1.5
-2.0											-2.0
-2.5	6.1	6.0	3.9	3.8	3.2	3.0	3.8	3.7	6.3	12.3	-2.5
-3.0	9.3	9.2	5.6	5.5	5.1	5.0	6.6	6.5	12.4	15.7	-3.0
-3.5	11.2	11.1	8.1	8.0	7.9	7.8	9.4	9.3	15.8	18.0	-3.5
-4.0	12.6	12.5	11.3	11.2	11.3	11.2	11.9	11.8	18.1	20.6	-4.0
-4.5	13.8	13.7	12.8	13.0	12.5	13.0	14.5	14.4	20.7	20.6	-4.5
-5.0	14.9	14.8	14.8	14.7	13.1	13.6	19.3	19.2	24.3	24.2	-5.0
-5.5	17.9	17.8	17.8	17.7	13.7	15.1	22.9	22.8	27.6	27.5	-5.5
-6.0	21.5	21.4	22.6	22.5	15.2	20.4	26.3	26.2	31.0	30.9	-6.0
-6.5	25.2	25.1	26.0	25.9	20.5	24.0	29.7	29.6	34.2	34.1	-6.5
-7.0	28.3	28.2	29.3	29.2	24.1	27.5	32.9	32.8	37.4	37.3	-7.0
-7.5	31.7	31.6	32.6	32.5	27.6	30.7	36.1	36.0	40.5	40.4	-7.5
-8.0	34.9	34.8	35.6	35.5	30.8	33.9	39.3	39.2	43.7	43.6	-8.0
-8.5	38.3	38.2	39.0	38.9	34.0	37.2	42.5	42.4	46.7	46.6	-8.5
-9.0	41.4	41.3	42.1	42.0	37.3	40.4	45.6	45.5	49.9	49.8	-9.0
-9.5	44.5	44.4	45.2	45.1	40.5	43.5			53.0	52.9	-9.5
-10.0	47.6	47.5	48.2	48.1	43.6	46.6			56.0	55.9	-10.0
-10.5	50.5	50.4	51.4	51.3	46.7	49.8			59.1	59.0	-10.5
-11.0	53.7	53.6	54.6	54.5	49.9	52.8				62.2	-11.0
-11.5	56.7	56.6	57.6	57.5	52.9	55.8					-11.5
-12.0	59.7	59.6	60.6	60.5	55.9	59.0					-12.0
-12.5	63.0	62.9	63.7	63.6	59.1	62.0					-12.5
-13.0	66.1	66.0	66.7	66.6	62.1	65.1					-13.0
-13.5					65.2	68.3					-13.5
-14.0					68.4	71.4					-14.0
-14.5					71.5	74.5					-14.5
					74.6	77.7					

NOTE: - The above corrections are to be applied to the soundings appearing on the "A" scale.

For "B" scale soundings during the period June 2, 1944 - July 7, 1944 apply an additional correction of +11.3 feet. See Page 17, Vol. 3.

DEPTH RECORDER REDUCERS FOR SHEET NO. 6861

<u>DATE</u> <u>CORRECTIONS</u>	<u>July 18, 1944</u>		<u>July 19, 1944</u>		<u>July 20, 1944</u>		<u>Aug. 1, 1944</u>		<u>Aug. 2, 1944</u>		<u>DATE</u> <u>CORRECTIONS</u>
	<u>From</u>	<u>To</u>	<u>From</u>	<u>To</u>	<u>From</u>	<u>To</u>	<u>From</u>	<u>To</u>	<u>From</u>	<u>To</u>	
- 1.5	3.8	3.7	7.6	7.5	3.3	3.2	4.5	4.4	11.1	11.0	- 1.5
- 2.0	5.9	5.8	13.1	13.0	11.6	11.5	11.3	11.2	11.1	11.0	- 2.0
- 2.5	10.9	10.8	16.1	16.0	13.7	13.6	14.6	14.5	13.6	13.5	- 2.5
- 3.0	15.1	15.0	20.1	20.1	16.6	16.5	17.9	17.8	20.1	20.0	- 3.0
- 3.5	21.4	21.3	24.2	24.8	22.5	22.4	21.5	21.4	24.6	24.5	- 3.5
- 4.0	25.8	25.7	28.9	28.2	26.9	26.8	26.1	26.0	28.9	28.8	- 4.0
- 4.5	30.3	30.2	33.3	33.2	30.9	30.8	30.1	30.0	32.8	32.7	- 4.5
- 5.0	33.9	33.8	37.0	36.9	34.7	34.6	34.1	34.0	36.8	36.7	- 5.0
- 5.5	37.8	37.7	40.5	40.4	38.5	38.4	37.8	37.7	40.4	40.3	- 5.5
- 6.0	41.5	41.4	44.0	44.0	42.3	42.2	41.5	41.4	43.9	43.8	- 6.0
- 6.5	44.9	44.8	47.6	47.6	45.7	45.6	45.1	45.0	47.5	47.4	- 6.5
- 7.0	48.5	48.4	51.0	51.0	49.2	49.1	48.6	48.5	51.0	50.9	- 7.0
- 7.5	51.9	51.8	54.5	54.5	52.7	52.6	51.9	51.8	54.2	54.2	- 7.5
- 8.0		55.1				56.8		55.3			- 8.0

NOTE: - The above corrections are to be applied to the soundings appearing on the "A" scale.

For "B" scale soundings during the period July 14, 1944 - August , 1944 apply an additional correction of +9.9 feet. See page 46, Vol. 3.

DEPTH RECORDER READINGS FOR SHEET NO. 6861

<u>DATE</u> <u>CORRECTIONS</u>	<u>July 3, 1944</u> L-day		<u>July 4, 1944</u> M-day		<u>July 7, 1944</u> M-day		<u>July 14, 1944</u> P-day		<u>July 17, 1944</u> Q-day		<u>DATE</u> <u>CORRECTIONS</u>
	<u>FEET</u> From	<u>FATHOMS</u> To	<u>FEET</u> From	<u>FATHOMS</u> To	<u>FEET</u> From	<u>FATHOMS</u> To	<u>FEET</u> From	<u>FATHOMS</u> To	<u>FEET</u> From	<u>FATHOMS</u> To	
- 1.5	3.7	3.6	5.8	5.7	4.8	4.7	7.6	7.5	8.1	8.0	- 1.5
- 2.0	5.8	5.7	9.6	9.5	8.1	8.0	9.8	9.7	12.4	12.3	- 2.0
- 2.5	9.3	9.2	11.9	11.8	11.4	11.3	11.6	11.5	14.6	14.5	- 2.5
- 3.0	14.6	14.5	13.5	13.5	13.2	13.1	13.5	13.4	17.0	16.9	- 3.0
- 3.5	17.6	17.5	15.3	15.3	14.5	14.5	15.1	15.0	19.8	19.7	- 3.5
- 4.0	19.8	19.7	21.0	21.0	16.3	16.3	17.9	17.8	23.8	23.7	- 4.0
- 4.5	24.3	24.2	25.8	25.8	16.4	16.4	17.9	17.8	23.8	23.7	- 4.5
- 5.0	28.6	28.5	30.0	30.0	22.5	22.4	23.4	23.3	28.2	28.1	- 5.0
- 5.5	32.6	32.5	34.0	34.0	26.9	26.8	27.7	27.6	32.2	32.1	- 5.5
- 6.0	36.5	36.4	37.6	37.6	30.9	30.8	31.8	31.7	36.2	36.1	- 6.0
- 6.5	40.0	39.9	41.2	41.2	34.9	34.9	35.5	35.4	39.2	39.1	- 6.5
- 7.0	43.5	43.4	44.3	44.3	38.5	38.4	39.1	39.0	43.3	43.2	- 7.0
- 7.5	47.1	47.0	48.3	48.3	42.3	42.2	42.7	42.6	46.7	46.6	- 7.5
- 8.0	50.5	50.4	51.7	51.7	45.7	45.6	46.3	46.2	50.2	50.1	- 8.0
- 8.5	54.0	53.9	55.4	55.4	49.3	49.2	49.7	49.6	53.6	53.5	- 8.5
- 9.0					52.8	52.7	53.3	53.2		56.9	- 9.0
- 9.5						55.8		56.6			- 9.5

NOTE: - The above corrections are to be applied to the soundings appearing on the "A" scale.

For "B" scale soundings during the period June 2, 1944 - July 7, 1944 apply an additional correction of + 11.3 feet. See Page 17, Vol. 3.

For "B" scale soundings during the period July 14, 1944 - August , 1944 apply an additional correction of + 9.9 feet. See Page 46, Vol 3.

DEPTH RECORDER REDUCERS FOR SHEET NO. 6861

DATE CORRECTIONS	Aug. 7, 1944 W-day		Aug. 10, 1944 X-day		DATE CORRECTIONS
	From FEET	To FATHOMS	From FATHOMS	To FEET	
- 1.0	3.7	3.6	5.5	5.4	- 1.0
- 1.5	7.4	7.3	15.5	15.4	- 1.5
- 2.0	12.1	12.0	23.1	23.0	- 2.0
- 2.5	20.1	20.0	27.2	27.1	- 2.5
- 3.0	24.2	24.1	31.2	31.1	- 3.0
- 3.5	28.6	28.5	35.2	35.1	- 3.5
- 4.0	32.6	32.5	39.3	39.2	- 4.0
- 4.5	36.3	36.2	43.4	43.3	- 4.5
- 5.0	40.0	39.9	47.0	46.9	- 5.0
- 5.5	43.5	43.4	50.4	50.3	- 5.5
- 6.0	47.1	47.0	53.8	53.7	- 6.0
- 6.5	50.5	50.4	57.0	56.9	- 6.5
- 7.0	53.9	53.8			- 7.0
- 7.5	57.0	57.0			- 7.5

NOTE: - The above corrections are to be applied to the soundings appearing on the "A" scale.

For "B" scale soundings during the period July 13, 1944 - August 10, 1944 apply an additional correction of +9.9 feet. See Page 46, Vol. 3.

H - 6976

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

No. H **H6861**
No. T

received February 5, 1944
registered February 7, 1944
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	Pg 1	ABG	Comdr Finnegan
88			
90			

RETURN TO

82	Comdr. R. W. Knox
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GEOGRAPHIC NAMES
 Survey No. **H6861**

Name on Survey										
	A	B	C	D	E	F	G	H	K	
<u>Maine</u>			(for title)					USGB		1
<u>Muscovus Bay</u>			"							2
<u>Monhegan Island</u>										3
<u>Allen Island</u>										4
<u>Eastern Egg Rock</u>										5
<u>Shark Island</u>										6
<u>Western Egg Rock</u>										7
<u>Moser Ledge</u>										8
<u>Pemaquid Neck</u>										9
										10
										11
										12
<u>Portland</u>			location of	tide	staff					13
<u>Boothbay Harbor</u>			"	"	"			USGB		14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Names underlined in red approved
 by L. Heck on 8/22/46

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6861**

Records accompanying survey:

Boat sheets *.2.*; sounding vols. ¹¹*6.*; wire drag vols.;
 bomb vols.; graphic recorder ^{6-envelopes}~~rolls~~ *5.*;
 special reports, etc. *1-Cahier Fathometer Corrections - GILBERT.*

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

Number of positions on sheet	3637.
Number of positions checked	...15.
Number of positions revised	...0.
Number of soundings recorded	<i>profile</i>
Number of soundings revised (refers to depth only)	...11.
Number of soundings erroneously spaced0
Number of signals erroneously plotted or transferred0
Topographic details	Time ...2.
Junctions	Time ..22.
Verification of soundings from graphic record	Time0

Verification by *J. J. Jordan* Total time *217.* Date *Mar. 13, 1946*

Review by *F. H. Carstens* Time *49.* Date *March 29, 1946*

LCC
HCC

TIDE NOTE FOR HYDROGRAPHIC SHEET

February 12, 1944

~~Division of Hydrography and Topography:~~

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

Plane of reference approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 6861

Locality Muscongus Bay, Maine

Chief of Party: W. R. Porter and I. E. Rittenburg in 1943

Plane of reference is mean low water reading

- 2.1 ft. on tide staff at Monhegan Island
- 16.5 ft. below B. M. 1
- 3.9 ft. on tide staff at Boothbay Harbor
- 18.5 ft. below B. M. 4

Height of mean high water above plane of reference is 8.8 ft.

Condition of records satisfactory except as noted below:

C. K. Green

Chief, Division of Tides and Currents.

TIDE NOTE FOR HYDROGRAPHIC SHEET

26 May 1945

~~Division of Hydrography and Topography:~~

✓ Division of Charts: Attention: H. W. MURRAY

Plane of reference approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 6861 Additional Work

Locality Muscongus Bay, Maine

Chief of Party: I. E. Rittenburg in 1944
Plane of reference is mean low water reading
8.6 ft. on tide staff at Portland
19.0 ft. below B. M. 31
2.4 ft. on tide staff at Boothbay Harbor
13.2 ft. below B. M. 6

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

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6861

FIELD NO. 2143

Maine, Muscongus Bay, Monhegan Island to Pemaquid Neck
Surveyed in Oct. 1943 - Aug. 1944 Scale 1:20,000
Project No. CS-265

Soundings:

Control:

808 Fathometer

Sextant fixes on shore signals

Chiefs of Party - I. E. Rittenburg and W. R. Porter
Surveyed by - I. E. Rittenburg and W. R. Porter
Protracted by - M. E. Byrd, K. T. Meech, M. J. Langley and
G. Barr
Soundings plotted by - M. J. Langley and G. Barr
Verified and inked by - G. F. Jordan
Reviewed by - R. H. Carstens, March 29, 1946
Inspected by - H. W. Murray

1. Shoreline and Signals

The shoreline and topographic signals are from T-5990, T-5991, T-5999, T-5620 and T-5621, all of 1941. Sextant cuts for supplementary hydrographic signals are recorded in the sounding records of the present survey. Hydrographic signals Ho and Kay were transferred from H-6858 (1943) and hydrographic signals Man and Ram were transferred from H-6969 (1944).

2. Sounding Line Crossings

Depths at crossings are satisfactory. Parts of lines on E and F day (red) were omitted because the speed of the fathometer was erratic. Some depths on these lines differed by as much as 12 ft. with adjacent depths. However, the development in the area affected is considered adequate even with the omission of these lines.

3. Depth Curves and Bottom Configuration

The usual depth curves were satisfactorily drawn.

The bottom is very irregular. Numerous ridges and parallel-ing deeps trend in a southerly direction. There are also many isolated spots rising sharply from deeper depths. A good illustration is the 156 ft. spot in lat. $43^{\circ} 43.5'$, long. $69^{\circ} 28.3'$ which rises from adjacent depths of about 330 ft.

A few of the reefs are dangerous to surface navigation but most of the features are covered by more than 40 ft. of water.

4. Adjoining Surveys

Satisfactory junctions were made with H-6858 (1943) and H-6844 (1943) on the west, H-6853 (1943) and H-6969 (1944) on the north, and H-6992 (1944) on the southeast. The junctions with H-6982 (1944-45) on the east and H-6854 (1943-44) on the north at long. $69^{\circ} 24'$ will be considered when those surveys are verified. There are no contemporary surveys on the south registered at the present time.

5. Comparison with Prior Surveys

H-746 (1860)	1:20,000
H-823a (1863)	1:40,000
H-823c (1867)	1:20,000
H-986 (1868)	1:10,000
H-1836 (1888)	1:40,000

H-746 covers the greater part of the area of the present survey and the other surveys cover small areas on the north, east, and south sides.

Development on the prior surveys is sparse. Depths in many places are 12 to 30 ft. deeper than present depths. This difference is probably caused by the difference in the methods of surveying.

The following soundings from H-746 falling 230 to 400 meters from similar depths on the present survey are probably out of position and should be disregarded (geographic positions are smooth sheet values).

<u>Sounding</u>	<u>Lat.</u>	<u>Long.</u>	<u>Present depth</u>	<u>Chart</u>
a. 195 ft.	$43^{\circ} 47.77'$	$69^{\circ} 28.55'$	about 240 ft.	313
b. 150 ft.	$43^{\circ} 48.85'$	$69^{\circ} 29.74'$	about 240 ft.	313
c. 123 ft.	$43^{\circ} 48.50'$	$69^{\circ} 23.78'$	140 to 198 ft.	313

The 118 ft. (chart 313) in lat. $43^{\circ} 50.15'$, long. $69^{\circ} 28.20'$, from H-746, falling in present depths of 160 to 180 ft. was probably recorded 10 fms. in error. Present development disproves the sounding.

The 153 ft. (uncharted) in lat. $43^{\circ} 47.97'$, long. $69^{\circ} 19.95'$ on H-823a, falling in present depths of 203 to 226 ft. was probably recorded 10 fms. in error. Present depths are adequate for charting.

The present survey is considered adequate to supersede these prior surveys within the common area.

6. Comparison with Chart 312 (Latest print date 8/4/45)
Chart 313 (Latest print date 9/1/45)
Chart 1204 (Latest print date 6/23/45)

A. Hydrography

The hydrography is charted largely from the previously discussed surveys. Supplementary least depths are from the present survey before verification and review.

No authority could be found for the following soundings which first appear on charts 312 and 313 in 1916 when the soundings on those sheets were changed from fathoms to feet:

<u>Sounding</u>	<u>Lat.</u>	<u>Long.</u>	<u>Present depth</u>	<u>Chart</u>
a. 153 ft.	$43^{\circ}47.63'$	$69^{\circ}19.95'$	250 to 264 ft.	312, 313
b. 142 ft.	$43^{\circ}48.57'$	$69^{\circ}16.30'$	about 170 ft.	312
c. 170 ft.	$43^{\circ}49.98'$	$69^{\circ}19.05'$	about 200 ft.	312, 313
d. 200 ft.	$43^{\circ}50.10'$	$69^{\circ}18.60'$	about 230 ft.	312, 313

Present depths are considered adequate for charting this area. The depths listed above should be disregarded.

The 116 feet (chart 313) in lat. $43^{\circ} 47.28'$, long. $69^{\circ} 30.40'$ charted from the present survey was rejected in the process of verification.

Inasmuch as there are considerable differences in some places between charted depths and present depths, the chart should be recompiled from present survey.

B. Aids to Navigation

The survey position of the beacon charted in lat. $43^{\circ} 50.48'$, long. $69^{\circ} 18.87'$ is 80 meters west of the charted position on charts 312 and 313. The survey positions of other aids to navigation are in satisfactory agreement with the charted positions.

7. Condition of Survey

The field plotting of soundings and protracting of positions was excellent.

The condition of the sounding records was very good.

8. Compliance with Project Instructions

The present survey complies with project instructions except that few bottom characteristics were taken and no hand lead verification of critical depths was made, as called for in paragraph 9 of the Instructions of March 16, 1943.

9. Additional Field Work Recommended

This is a basic survey and no additional field work is recommended.

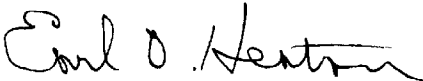
Examined and approved:



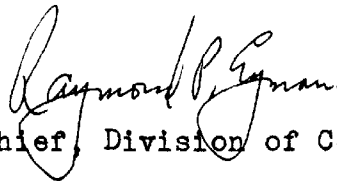
Chief, Nautical Chart Branch



Chief, Chart Division



Chief, Section of Hydrography



Chief, Division of Coastal Surveys

Partially applied before V+R to chart 313 - 3-22-44

" " " " " 1204 - 5-10-44

" " " " " 1000 thru 1204 - 9-2-44

K.R.
H.F.S.
H.F.S.

(Copied from duplicate cover)
3-13-46
G.F.d.