

7054

Diag'd. on Diag. Ch. No. 1203-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. F115 Office No. H-7054

LOCALITY

State Maine

General locality Approaches to Penobscot Bay

Locality Metinic I. to Large Green I.

1945

CHIEF OF PARTY

L. P. Raynor

LIBRARY & ARCHIVES

DATE .....

7054

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

H7054

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-7054

Field No. F 115

State Maine

General locality ~~Coast of Maine,~~ Approaches to ~~West~~ Penobscot Bay

Locality Metinic Island <sup>to Large</sup> and Green Island.

Scale 1 : 10,000 Date of survey 16 May to 17 August, 1945

Instructions dated 7 May, 1941 and 11 March, 1944

Vessel LYDONIA, Launches 79 and 82.

Chief of party L. P. Raynor

Surveyed by Lt. Comdr's. E. B. Latham and P. L. Bernstein.

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

Protracted by A. G. Atwill

Soundings penciled by A. G. Atwill

Soundings in ~~2000~~ feet at MLW ~~1000~~

REMARKS: This sheet was processed in the Hydrographic Section of the S.E.  
District, Norfolk, Va.

DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY SHEET  
(Field No. F115)

H-7054  
Project CS - 265

Ship LYDONIA

L. P. Raynor, Comdg.

1945

Surveyed by E. B. Latham, Lieut. Comdr. USC&GS  
P. L. Bernstein, Lieut. Comdr. USC&GS

A. PROJECT

Project No. CS-265, Original Instructions dated 7 May, 1941, Supplemental Instructions dated 11 March, 1944.

B. SURVEY LIMITS AND DATES

This survey covers the approaches to West Penobscot Bay in the vicinity of Metinic and Green Islands, Metinic Ledge, Northern and Southern Triangles and Green Island Seal Ledge. Field work on the sheets began on 16 May, 1945, and ended 17 August, 1945. Junctions are made with previously executed surveys as follows:

On the NW and N, (WD)<sup>H-</sup> 3185, executed in 1910, (WD)<sup>H-</sup> 3025, executed in 1909-1913.

On the NE, (WD)<sup>H-</sup> 3528 executed in 1913.

Part of the area surveyed includes areas previously surveyed on Sheets H<sup>23</sup> 293 (843-57) and H<sup>42</sup> 943 (842-57) (scales and dates supplied by Processing Off.)

Junctions with contemporary surveys as follows:

On the SE<sup>H-</sup> Sheet 6982, 1944-1945 (Scale 1:20,000).

Several periods when work was excessively delayed by fog were encountered during the period of field work.

It was found that certain areas were poorly controlled on the original sheet layout. This situation was remedied by constructing circles on the boat sheet and by constructing an additional boat sheet, both being expedients to bring Two Bush Island L. H. into the hydrographic signal system.

It is believed that the above system of boat sheet layout will not be satisfactory for smooth sheet plotting. A recommended layout is to use one sheet 42" x 62", skewed with the NE corner at Lat. 43-58.82, Long. 69-01.65, and the NW corner at Lat. 43-55.40, Long. 69-12.25, this sheet including Two Bush Island L.H.; and a second sheet 31"x53" with the SW corner at Lat. 43-50.00, Long. 69-07.25, and the SE corner at Lat. 43-52.9, Long. 68-58.10, this sheet including O GREEN.

*Smooth sheet has skewed projection with Two Bush L.H. on dogear*  
*Dogear removed in office after Rev.*

C. VESSEL AND EQUIPMENT

Launches Nos. 82 and 79, using Portable Depth Recorders Nos. 75 and 76, were used for this survey, basing from the Ship LYDONIA.

D. TIDE AND CURRENT STATIONS

A tide staff at Burnt Island C. G. Station and an automatic portable tide gage at Matinicus Island were used on this survey. Dates each used to be supplied by the Processing Office by reference to sounding records. The two stations were used indiscriminately in so far as the field work is concerned and any corrections to the data

from each station to be supplied by the Division of Tides and Currents, Washington.

No current stations were occupied.

E. SMOOTH SHEET

The smooth sheet is to be plotted by the Norfolk Processing Office. Reference is made to the last paragraph in "A". "B" ?

F. CONTROL STATIONS

See list of signals appended to this report.

Hydro signal BAK, a pipe type signal, was erected on Black Rock and called BAK. It was located by sextant angles between triangulation stations and marked topo station GREEN. (Med) The position was computed. This procedure was followed because it was believed that the area of the rock as taken from the air photo compilation precluded accurate plotting of the signal from the compilation alone.

Hydro signal ROCK was located by theodolite cuts from triangulation stations and position computed. *Computations filed with sounding records*

Plane table verification of signals on Large Green Island was made using the boat sheet. Signals were found to be in close agreement with the air photo compilation.

⊙ PAD, as transferred from the air photo compilation, was found to be in error due to the fact that the point described was incorrectly recovered. Position was obtained by a sextant cut taken from ⊙ GREEN and the plotted position changed to agree with the cut and natural features (grass line) clearly showing on the photographs. ⊙ CAB, located on on air photo compilation was not used.

G. SHORELINE AND TOPOGRAPHY

The shoreline and topographic details are from topographic sheets listed on the appended list of signals. In most places it was not possible to sound over the low water line as the shoreline was mostly ledge rock and too steep to determine low water line by this method. Where possible, lines were run close to and parallel to the beach, and a careful examination of low water features was made and sketched on the boat sheet. Agreement with the shore line as shown on the photo compilation was fair to good.

H. SOUNDINGS

Soundings were obtained with the 808 Portable Depth Recorder and hand lead, using standard methods.

Bar Check conditions were as specified in paragraph 5572(c) of the Hydrographic Manual. Whenever conditions favorable for dependable bar checks were encountered, complete bar checks were taken. Correction tables have been prepared on the basis of all acceptable bar checks taken during the several field trips and these tables have been furnished the Processing Office. *Revision of fathometer corrections discussed in Review Par. 7*

I. CONTROL OF HYDROGRAPHY

Three point fixes on shore objects were used on this work. In some instances fixes could not be obtained at the inshore ends of lines. Generally the sounding launch was brought in on a range of natural objects and the line fixed by dead reckoning and by identifiable shoreline features.

Positions were also plotted from circles in much of the work on this boat.

sheet. In the vicinity of Southern Triangles double angles were used for control, an additional observer being used and plotting being done with the sum of two angles. ✓  
 On "c" day, Launch 82, work was done in the vicinity of Wheeler Big Rock during poor visibility. Offshore ends of lines depends on generally weak fixes. These lines were run on ranges and are considered to be well controlled in and E and W direction. This area was covered later using good fixes and it is recommended that soundings taken on "c" day be not plotted until soundings are on the sheet. ✓  
 Hydrography north of Wheeler Big Rock is complete without using soundings of "c" day, but no reason exists for rejecting these soundings if they are found to be in agreement with the later hydrography. ✓

$\phi 43-54.05'$   
 $\lambda 69-07.35'$   
 Sdgs on c-day are in good agreement with sdgs of other days

J. ADEQUACY OF SURVEY

The survey is complete and adequate to supersede prior surveys for charting. Junctions with adjoining surveys are satisfactory and no holidays exist. No excessive differences exist that are not caused by rough, rocky bottom. Depth curves join within limits to be expected where bottom is rough. ✓

K. CROSSLINES

Sufficient crosslines were run to check the sounding lines and comply with the instructions. Discrepancies in crossings were generally caused by rough, rocky bottom. ✓

L. COMPARISON WITH PRIOR SURVEYS

The comparisons with prior surveys are made in the next paragraph. ✓

M. COMPARISON WITH CHARTS

Tides used in the following comparisons are Portland, Maine, predicted tides, which were used in plotting soundings on the boat sheet.

CHART 312 (Print dated 5/15/43)

Sounding of 60 feet in Lat. 43 - 54.4, Long. 69 - 03.1, was not verified. It is recommended that it be removed from the chart. ✓

For disposition see par. 5A(2) of Review

In the vicinity of the 30 foot sounding in Lat. 43 - 54.5, Long. 69 - 07.1, this sounding was verified and various shoals discovered between there and Metinic Island. No additional <sup>off-shore</sup> shoals were discovered. ✓

On Metinic Ledge the 8 foot least depth was verified. ✓

The 14 foot sounding in Lat. 43 - 52.6, Long. 69 - 09.2, was not verified. Extensive development was accomplished in this area with a least depth of (21) feet being found in Lat. 43 - 52.6, Long. 69 - 09.3, and it is recommended that the 14 foot sounding be deleted. ✓

14 is a detached sdg from H-923, not disproved by present development. 14 is retained from

The 24 foot sounding in Lat. 43 - 52.95, Long. 69 - 08.40, could not be verified. A least depth of (25) feet was found in Lat. 43 - 52.85, Long. 69 - 08.50, and therefore the 24 foot sounding can be retained in lieu of the latter. ✓

Present development adequate - 24 superseded

A (22) foot sounding was found in Lat. 43 - 52.90, Long. 69 - 08.80, which verified the charted sounding of 22 feet in Lat. 43 - 53.00, Long. 69 - 08.80. ✓

22 superseded by present depths

The 34 foot charted sounding in Lat. 43 - 53.4, Long. 69 - 03.2, was verified by a 38 foot sounding obtained by the LYDONIA. However, this position is shifted 0.15 mi. SW. The least depth obtained by Launch 82 was 45 feet and by Launch 79 was 48 feet. This 34 foot sounding can be definitely verified or disproved only

Present development adequate - 34 not retained, see par. 5A(1) of Review

by wire drag.

Additional development was accomplished in the vicinity on Southern Triangles and locations of rocks in that area delineated. The charted soundings are generally correct although more detailed soundings are shown in the current survey. 3

The 60 foot sounding in Lat. 42 - 52.30, Long. 69 - 05.55<sup>8</sup>, was verified with a least depth of <sup>47</sup>33 feet, which was 0.17 mile N x W of this position. 30 3

60 not retained - present development adequate

A least depth of <sup>47</sup>51 feet was found in Lat. 42 - 52.47, Long. 69 - 03.80, where the least charted depth is 96 feet. 47 charted on latest print

The chart indicates a controlling depth of 19 feet between Metinic Island and Metinic Green Islands. This survey indicates that the maximum depth through this passage is 13<sup>2</sup> feet, but it is considered not safe for vessels drawing more than 7 feet. controlling depth of 7 ft on latest print

The controlling depth between Hog Island and Metinic Island is 6 feet. 7

The 43 foot charted sounding in Lat. 43 - 55.3, Long. 69 - 02.05<sup>7</sup> (Director's Letter dated 18 August, No. 839 - fsh) could not be verified after considerable search and it is recommended that this sounding be deleted. 43 not retained - Par. 5A(3) of Review

The 39 foot sounding charted in Lat. 43 - 55.25<sup>3</sup>, Long. 69 - 01.80, could not be verified after considerable search and it is recommended that this sounding be deleted. 39 not retained - Par. 5A(4) of Review

The 43 foot charted sounding in Lat. 43 - 54.95, Long. 69 - 01.30<sup>8</sup> could not be verified and it is recommended that it be deleted. 43 not retained - See par. 5A(1) of Review

The 52 foot sounding charted in Lat. 43 - 54.25<sup>7</sup>, Long. 69 - 02.35<sup>7</sup> was verified, a least depth of 45<sup>8</sup> feet being obtained.

The 55 foot charted sounding in Lat. 43 - 54.45, Long. 69 - 02.70<sup>5</sup> was verified, a least depth of 51<sup>0</sup> feet being obtained.

The 60 foot charted sounding in Lat. 43 - 54.65, Long. 69 - 02.70<sup>3</sup> was verified by a 49 foot sounding in the close proximity.

The 30 foot sounding charted in Lat. 43 - 54.75, Long. 69 - 02.50, was verified by a shoal area with a least depth of <sup>25</sup>26 feet obtained at Lat. 43 - 54.80, Long. 69 - 02.60. 25 charted on latest print

The 21 foot charted sounding in Lat. 43 - 55.00, Long. 69 - 02.55<sup>6</sup>, could not be verified after considerable search. However, a 28 foot shoal was found in Lat. 43 - 55.00<sup>0</sup>, Long. 69 - 02.65, and this should replace the above 21 foot shoal. 21 not retained - See par. 5A(6) of Review

The charted 19 foot sounding in Lat. 43 - 52.70<sup>2</sup>, Long. 69 - 07.00 was verified by a least depth of 14<sup>12</sup> feet in the close proximity.

The extent of Cat Ledge was delineated on this survey.

The charted 19 foot sounding on the northwest edge of Green Pt. Shoal was verified by a least depth of 17 feet, and the extent of Green Point Shoal area thoroughly delineated.

Additional development was made in the vicinity of Northern Triangles and locations of rocks in that area delineated. In most cases the least depths were found to be about 50 meters southwest of the charted positions, which may be due to shift of datums. Differences in some places caused by errors in plotting on prior surveys

The least depth determined in this survey in general was from 1 to 3 feet greater than that charted due probably to the rough uneven bottom, and therefore it is recommended that the charted least depths in this area be retained. Chart 225 (Print date 4/29/42) Collins Rk to Green I. Seal Ledges - critical depths retained from H-763

The charted sounding of 39 feet in Lat. 43 - 53.30, Long. 69 - 00.20 could not be verified. The least depth found in this area was 54 feet. 39 not retained - See par. 5A(1) of Review

The extent of Green Island Seal Ledges was delineated in this survey.

N. DANGERS AND SHOALS

The following rocky shoals were reported on Form 786 "Advance Report of Dangers to be Charted". *CR Lettaro 478 & 527 (1945)*

<i>Depth on Smooth Sheet</i>	Depth	Latitude	Longitude	<i>edges charted on latest print</i>
	26 ft.	43° 53' + 878m	69° 09' + 157m 107	
28	29 ft.	43 53 830	69 08 715	
	<del>20 ft.</del>	<del>43 51 760</del>	<del>69 08 990</del>	<del>(H-7054) from H-6982</del>
84	10 ft.	43 54 788 49	69 07 45 20	
27	29 ft.	43 54 922	69 07 185 202	(not charted)
	<del>15 ft.</del>	<del>43 50 1066</del>	<del>69 11 194</del>	<del>(H-7054) from H-6982</del>
21	25 ft.	43 52 266	69 09 65	
	<del>30 ft.</del>	<del>43 50 216</del>	<del>69 09 1076</del>	<del>(H-7054) from H-6982</del>
	<del>30 ft.</del>	<del>43 50 346</del>	<del>69 09 1150</del>	<del>(H-7054) from H-6982</del>

Sketch dated 19 July, 1945, showing various shoal soundings on east side of Metinic Island.

The following shoals are definite features but are not considered dangers and were not reported heretofore.

15	<del>28</del> ft.	43° 52' + 1250	69° 08' + 106°	<i>edges charted on latest print</i>
47	31 ft.	43 52 920 86°	69 03 1150 107°	

Extensive shoals <sup>east</sup> west of Alden rock having least depth as follows:

32	31 ft.	43° 55' + 925	69° 03' + 1027
	36 ft.	43 55 1750	69 03 1120m
37		1630	02 + 128°

Charted depth on the above shoal is 40 feet in Lat. 43 - 55.5; Long. 69 - 03.6.

O. COAST PILOT INFORMATION

On page 150, Wheeler Rock, with 5 feet over it, lies 0.4 mi. north-northeast, add "and foul ground extends 0.6 mile from the island in this direction".

On page 150, Black Rock, omit "of the middle of" since the feature is 0.7 mi. from the shoreline. Add "an 18 foot shoal lies 0.2 mile south of Black Rock".

On page 150, Metinic Green Island. Passage exists for small craft with draft of about 7 feet between Metinic and Metinic Green Island. Metinic Island is occupied during summer and fishing and lobstering is carried on by the inhabitants. No supplies or mail service are available on this island. The large barn on the north end of Metinic Island is a good landmark. There are several houses at the north end, and on the low ground in the middle of the island.

On page 149, Large Green Island. The large house (© GRAY) near the center of the island is a satisfactory landmark.

Little Green Island is uninhabited.

P. AIDS TO NAVIGATION

The floating aids to navigation are indexed in the front of Volume 1. Depths at buoys should be furnished after plotting smooth sheet.

Q. LANDMARKS FOR CHARTS

1. BARN (⊙ NIC) on northern part of Metinic Island.
2. Largest house (⊙ GRAY) on Large Green Island.

R. GEOGRAPHIC NAMES

814  
No new geographic names are recommended.

S-Z

Remaining subheadings do not apply.

Respectfully submitted,

*E. B. Latham*

E. B. Latham  
Lieut. Comdr. USC&GS

*P. L. Bernstein*

P. L. Bernstein  
Lieut. Comdr. USC&GS

Forwarded and approved with the following additional notes:

If the 14-foot charted sounding in Lat.  $43^{\circ}-52.6'$ , Long.  $69^{\circ}-09.2'$  is correctly plotted from the old records it is recommended that it be retained until disproved by the wire drag.

*14 retained on present survey*

It is believed that the 43-foot and 39-foot charted soundings north of Little Green Island do not exist. The bottom is composed of soft mud, sand and shells, and from the nearby land contours it seems improbable that these depths could rise so abruptly from the generally level bottom in their near vicinity.

*43 and 39 not retained on present survey*

*L. P. Raynor*

L. P. Raynor, Comdr. USC&GS  
Commanding Ship LYDONIA

LIST OF SIGNALS USED ON SHEET F115  
REGISTRY NO. H-7054

TRIANGULATION STATIONS

LAND (Green Island, 1859 - 1934)  
MET (Metinic, 1858 - 1934)  
TWO (Two Bush I. Light House, 1902 - 1934)

GRAPHIC CONTROL <sup>Sextant</sup> (Plane table and theodolite cuts plotted on boat sheet.)

<u>GAL</u>	<u>HAT</u>	<u>KFN</u>	<u>LAD</u>	<u>ROCK</u>	NIC (from H6982)
<sup>1944 4</sup> <u>T-8003</u>	<sup>1944</sup> <u>T-8004</u>	<sup>1944 4</sup> <u>T-8003</u>	<sup>1944</sup> <u>T-8006</u> <sup>71</sup>		<u>HYDROGRAPHIC</u>
EAR ✓	BUS ✓	ACE ✓	ACT ✓	AIM ✓	
FAR ✓	GREEN ✓	COD ✓	BAG ✓	BAK ✓	
GAD ✓	MAG ✓	DOT ✓	BOW ✓	DOG ✓	
HUT ✓	OAK ✓	EVA ✓	CAM ✓	EAT ✓	
ICE ✓	SKY ✓	HOG ✓	CHUM ✓	EX ✓	
JAR ✓	TOM ✓	RUE ✓	DAW ✓	FED ✓	
KED ✓	USE ✓	BAG ✓	FIG ✓	NAT ✓	
LEO ✓		DAW ✓	GAB ✓	ODD ✓	
<del>YEA</del>		NIT ✓	GEN ✓	PAD ✓	
WIT ✓		MUG ✓	GRAY ✓		
YEA ✓		LAY ✓	HOB ✓		
ZOO ✓		KEY ✓	IDA ✓		
		JUG ✓	IRK ✓		
		IRK ✓	JOE ✓		
		HOE ✓	JUG ✓		
		GIN ✓	KEY ✓		
		FIG ✓	LAY ✓		
			LIT ✓		
			MAL ✓		
			MUG ✓		
			NIT ✓		
			TIL ✓		

copy ✓ RHR.

STATISTICS, SHEET F115

<u>DATE</u>	<u>LAUNCH</u>	<u>DAY</u>	<u>VOL.</u>	<u>SNDGS.</u>	<u>POSITIONS</u>	<u>STAT. MI.</u> <u>SNDGS.</u>	<u>TOTAL STAT. MI.</u>
5/16	79	a	1	2	59	6.7	27.7
6/10	82	a	2	1	216	31.9	65.8
6/12	82	b	2-3		90	13.9	28.1
6/15	82	c	3		55	5.9	35.5
6/21	79	b	4	2	170	21.2	25.7
6/23	79	c	4-5	1	135	16.0	21.0
6/23	82	d	3	6	86	14.7	54.1
6/24	82	e	6		93	22.9	61.3
6/24	79	d	5	2	170	16.8	23.3
7/ 7	79	e	5-7		175	21.2	29.9
7/ 7	82	f	6		108	14.8	69.5
7/ 8	82	g	6		107	17.1	44.7
7/ 9	82	h	6-8	5	188	34.3	65.9
7/ 9	79	f	7		157	18.3	22.6
7/11	79	g	7-9		36	4.5	11.9
7/12	79	h	9	31	62	5.5	16.0
7/12	82	j	8-10		170	30.1	61.9
7/13	82	k	10		34	5.6	34.3
7/21	82	l	10	4	168	29.6	58.3
7/21	79	j	9		143	17.5	24.5
7/23	79	k	11		121	20.9	34.8
7/23	82	m	10-12	3	97	13.2	49.5
8/ 1	82	n	12		42	6.8	40.1
8/ 3	79	m	11	1	100	13.8	22.4
8/ 3	82	p	12		60	14.4	45.4
8/ 4	82	q	12	3	146	37.6	64.0
8/ 4	79	n	13		179	28.7	37.0
8/ 5	79	p	13-15		143	17.7	24.7
8/ 5	82	r	14		148	29.6	63.0
8/ 6	82	s	14-16	2	242	50.9	77.4
8/ 6	79	q	15	2	174	25.0	27.0
8/ 8	79	r	15-17	6	210	37.3	40.6
8/ 8	82	t	16-18	1	220	36.8	74.8
8/ 9	79	s	17		87	17.2	20.0
8/16	79	t	19		185	28.8	35.8
8/17	79	u	19-20		159	23.6	31.7
8/ 1	79	l	11		48	6.0	11.2
<b>TOTALS:</b>				<b>72</b>	<b>4783</b>	<b>756.8</b>	<b>1481.4</b>

Copy ✓ RHR.

### ADVANCE REPORT OF DANGERS TO BE CHARTED

H-6982

Survey (Sheet) No. F115 Datum NA 1927 Locality Coast of Maine, Metinic Island State Maine Date 7-16-45

I recommend that the following dangers to navigation be charted. The positions given have been checked after listing; Checked by \_\_\_\_\_

-----  
Chief of Party

Type of Danger	*Depth (Feet)	Latitude and Longitude		† From Charted Object or Natural Feature			‡ Chart Used		Date of Location	Remarks
		°	Seconds in Meters	True Bearing	Distance (Meters)	Object or Feature	No.	Print Date		
Shoal	26	43-53 69-09	858 157	343	1240	Black Rock	312	2-2-45	7-12-45	Sh. F 115
Shoal	29	43-53 69-08	830 716	19	1225	Black Rock	312	2-2-45	7-12-45	Sh. F 115
Shoal	23	43-51 69-08	730 1105	241	1200	Meticinic Green II	312	2-2-45	7-7-45	Sh. H-6982

*Chart letter 478 (1945)*

\* Record least depth over danger reduced to plane of reference of charted soundings, using observed tides, if available.  
† Record location both by geographic position and by true bearing with distance from object or natural feature shown on chart.  
‡ Use largest scale chart and note print date given in lower left corner of chart.  
NOTE - This form to be used during the season for prompt reports of uncharted dangers. If reports have been sent by wire, fill out this form and mail with confirmations. Enter dates of wires under "Remarks". Copies of reports on this form should be retained and submitted with the descriptive report.

ADVANCE REPORT OF DANGERS TO BE CHARTED

Survey (Sheet) No. F 115 Datum NA 1927 Locality Metinic Island State Maine Date 8 August 1946  
I recommend that the following dangers to navigation be charted. The positions given have been checked after listing; Checked by L. V. Evans, III  
Scaled by E. B. Latham

L. P. Raynor

Chief of Party

Type of Danger	*Depth (Feet)	Latitude and Longitude		† From Charted Object or Natural Feature			‡ Chart Used		Date of Location	Remarks
		° /	Seconds in Meters	True Bearing	Distance (Meters)	Object or Feature	No.	Print Date		
Shoal {	10	43-54	780	030°	800	Wheeler				Reduced by Predicted tides.
		69-07	45			Big Rock	312	2/2/45	7/23/45	
Shoal {	29	43-54	922	017½°	870	Wheeler				" " " "
		69-07	185			Big Rock	312	2/2/45	7/23/45	
				<i>Chart letter 527 (1945)</i>						

\* Record least depth over danger reduced to plane of reference of charted soundings, using observed tides, if available.  
† Record location both by geographic position and by true bearing with distance from object or natural feature shown on chart.  
‡ Use largest scale chart and note print date given in lower left corner of chart.

NOTE - This form to be used during the season for prompt reports of uncharted dangers. If reports have been sent by wire, fill out this form and mail with confirmations. Enter dates of wires under "Remarks". Copies of reports on this form should be retained and submitted with the descriptive report.

APPROVAL SHEET F-115 H-

The boat sheet was inspected daily, and the sounding records frequently. Both are approved.



L. P. Raynor, Comdr., USC&GS  
Commanding Ship LYDONIA

A D D E N D U M

to accompany

HYDROGRAPHIC SHEET NO. H-7054 (Field No. F-115)

Note: Corrections in the body of this report shown in red were made at this office.

Discrepancies:

81-91 j (blue), latitude 43°52.71' and longitude 69°04.68'.

A note in the sounding record at position 80 j (blue) states "Initial one fathom low from here to position 91". This discrepancy was allowed for when the soundings were reduced. However, the soundings as now shown on the smooth sheet appear to be about 6 feet too shoal when compared with adjacent hydrography.


Discrepancy eliminated by application of new fathometer corrections on crossing lines

c day (Red), Wheeler Big Rock, approximate latitude 43°54.4' and longitude 69°07.2'.

(See note in the descriptive report on page # 3, paragraph I.) The work done on c day in the above area is plotted on the smooth sheet. The agreement of the hydrography done on c day (red) with that done on other days appears to be in fair agreement.

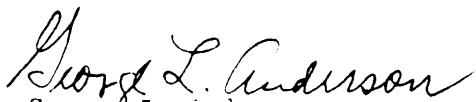
✓  
c-day work satisfactory

Respectfully submitted,

  
Isadore M. Zeskind  
Cartographic Engineer

Norfolk, Va.  
June 28, 1946

Approved & Forwarded

  
George L. Anderson  
Supervisor SE District

839  
Nunn

## TIDE NOTE FOR HYDROGRAPHIC SHEET

August 8, 1946

~~Division of Hydrography and Topography:~~

Division of Charts: H. W. MURRAY

Plane of reference approved in  
21 volumes of sounding records for

HYDROGRAPHIC SHEET 7054

Locality Approaches to Penobscot Bay, Coast of Maine

Chief of Party: L. P. Raynor in 1945  
Plane of reference is mean low water, reading  
2.9 ft. on tide staff at Matinicus Island  
11.5 ft. below B. M. 2  
~~2.6 ft. on tide staff at Burnt Island~~  
~~17.1 ft. below B. M. 1~~

Height of mean high water above plane of reference is 9.0 feet.

Condition of records satisfactory except as noted below:

*E. C. McKay*  
Section  
Chief, ~~Division~~ of Tides and Currents.—

GEOGRAPHIC NAMES

Survey No.  
H-7054

Name on Survey	Sources									
	A	B	C	D	E	F	G	H	K	
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
Maine		(for title)							USGB	1
Penobscot Bay		" "								2
										3
Metinic Island		(tide staff location)								4
Large Green Island										5
Little Green Island										6
Green Island Seal ledges										7
Herring Ledge										8
Collins Rock										9
Northern Traingles										10
Alden Rock										11
Southern Triangles										12
Green Point Shoal										13
Cat Ledge										14
Hog Island										15
Metinic Green Island										16
Black Rock										17
Metinic Island Ledge										18
Wheeler Big Rock										19
Wheeler Rock										20
										21
										22
										23
										24
										25
										26
										27

Checked and certified in the office  
of L. Heck on 2/14/97

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ... **H7054**

Records accompanying survey:

Boat sheets .3...; sounding vols. ...21; wire drag vols. ....;  
 bomb vols. ....; graphic recorder rolls .37 in 10 pkgs.  
 special reports, etc. .1 folder. Comp. Signal. "Rock." in desc. rept. ....  
 ..... 1 Envelope - Barchecks (H-6982 & H-7054) .....  
 ..... 1 Envelope - Fathometer Corrections

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

Number of positions on sheet		4783
Number of positions checked		168
Number of positions revised		14
Number of soundings revised (refers to depth only)		4 Volumes of depths changed due to absence of velocity correction
Number of soundings erroneously spaced		24
Number of signals erroneously plotted or transferred		—
Topographic details	Time	24 hrs
Junctions	Time	16 hrs
Verification of soundings from graphic record	Time	40 hrs
Corrections to Records (T.V.S.)	Time	41 hrs
Verification by... <i>A. R. STIRNI</i> .....	Total time	285 hrs. Date Dec 17, 1946
Reviewed by... <i>R. H. Carstens</i> .....	Time	100 hrs Date Jan 31, 1947



4. Junctions with Contemporary Surveys

A satisfactory junction was effected with H-6982 (1944-45) on the southwest.

No other contemporary surveys in this locality are registered at the present time.

5. Comparison with Prior Surveys

- A. H-823a (1863) 1:40,000  
 H-823b (1867) 1:20,000  
 H-943 (1866-67) 1:20,000  
H-1051 (1866-68) 1:20,000

These surveys taken together cover the entire area of the present survey. H-823a and b covers approximately the western half of the present survey and H-943 covers approximately the eastern half. H-1051 overlaps a small part of the present survey on the southeast.

Agreement with present depths is generally fair for an area of such great bottom irregularity. However, in about 25 instances, prior soundings are in disagreement with present depths. Many of these discrepancies are probably caused by errors in reading or recording the soundings on the prior surveys.

- (1) The following prior soundings were probably recorded in error - 7 fms. being recorded mistakenly for 11 fms. since in each case, the 7 was read between or adjacent to depths of about 11 fms. - and should be disregarded:

<u>Prior</u> <u>Depth(ft.)</u>	<u>Present</u> <u>Depth(ft.)</u>	<u>Lat.</u>	<u>Long.</u>	<u>Chart</u>
40	66	43° 53.00'	69° 09.27'	312
37	53-68	43° 53.60'	69° 08.68'	312
42	69-79	43° 53.91'	69° 08.60'	312
45	81-76	43° 53.79'	69° 04.37'	312
43	73-76	43° 54.95'	69° 01.37'	312
34	50-61	43° 53.40'	69° 03.20'	312
39	54-68	43° 53.30'	69° 00.21'	225
37	66	43° 55.52'	69° 00.38'	225

- (2) The 10 fms. (charted) in lat. 43° 54.40', long. 69° 03.10' and the 11 fms. (uncharted) in lat. 43° 54.47', long. 69° 01.42' on H-943 are plotted in error. The recorded values are 16 $\frac{1}{4}$  fms. and 14 fms. respectively, which agree with present depths.

- (3) In a number of instances, prior shoal soundings fall in deeper depths on the present survey and are obviously in error. The plotting of the prior soundings has been verified with the original records. It is assumed that there are errors in the recorded values of soundings and sextant angles, which are the cause of the discrepancies. Listed below are the more outstanding prior depths which are probably in error and should be superseded by present depths:

<u>Sounding</u>	<u>Present Depth</u>	<u>Lat.</u>	<u>Long.</u>	<u>Chart</u>
58	78	43° 54.55'	69° 06.70'	312
87	102	43° 54.45'	69° 05.90'	312
82	134	43° 53.67'	69° 05.50'	312
52	80-125	43° 53.95'	69° 03.79'	312
81	103	43° 54.48'	69° 03.80'	312
43	77	43° 55.30'	69° 02.08'	312

- (4) In several instances, prior shoal soundings are displaced somewhat from the present position of the shoals and can be adequately superseded by present depths as for example, the 39 in lat. 43° 55.24', long. 69° 01.81' falling 90 meters from similar depths on the present survey and the 40 in lat. 43° 55.53', long. 69° 03.60' falling about 130 meters from similar depths on the present survey.

About twelve critical soundings which were not considered disproved by the present survey, and supplementary bottom characteristics have been retained from the prior surveys. With these additions the present survey is adequate to supersede these prior surveys within the common area.

- B. H-3025 W.D. (1909-13) 1:20,000  
 H-3185 W.D. (1910) 1:20,000  
H-3528 W.D. (1913) 1:20,000

Present depths do not conflict with the effective depths of these wire drag surveys.

6. Comparison with Chart 312 (Latest print date 10/5/46)  
Chart 225 (Latest print date 8/3/46)

A. Hydrography

The charted hydrography originates principally with the previously discussed surveys and with the present survey before verification and review.

- a. In the vicinity of the Northern Triangles some soundings from H-593 are erroneously charted as much as 90 meters from the correct positions as for example the 2-ft. sounding charted in lat.  $43^{\circ} 55.88'$ , long.  $69^{\circ} 02.30'$ . The correct position of the sounding is 90 meters to the east of the charted position.
- b. Authority for the 21 ft. charted in lat.  $43^{\circ} 55.0'$ , long.  $69^{\circ} 02.6'$  and the 62 ft. charted in lat.  $43^{\circ} 53.18'$ , long.  $69^{\circ} 01.40'$  on chart 312 could not be found. These soundings first appear on the 1916 edition when the chart was recompiled with soundings in feet. There are soundings on H-593 of 31 ft. and 82 ft. respectively at the same positions as the charted soundings. The charted soundings are probably compiled in error from these old soundings and should be disregarded.

The charted information is superseded by the present survey.

B. Aids to Navigation

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

7. Condition of Survey

- a. The field plotting was accurately accomplished.
- b. The Descriptive Report is complete and comprehensive.
- c. Fathometer corrections applied to soundings on five days work (four volumes) by the processing office were in error. On these days a zero correction from a 2-fm. bar check was applied to depths as great as 190 ft. whereas a velocity correction should have been applied to depths greater than 2 fms. The application of the proper fathometer corrections in the Washington Office eliminated discrepancies at crossings of as much as 6 ft.

On J-day, no corrections for a varying initial were applied by the processing office from positions 118, to 170 J. Corrections as great as 4 ft. were subsequently scaled from the fathograms and applied in the Washington Office.

8. Compliance with the Instructions for the Project

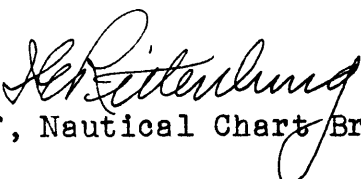
The present survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

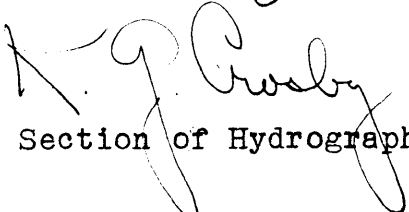
This is an excellent basic survey and no additional field work is recommended.

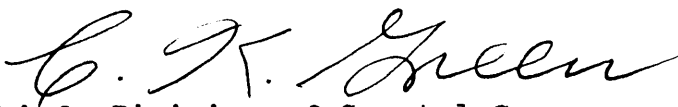
As part of the present project, wire drag surveys will be made within the area of the present survey.

Examined and approved:

  
Chief, Nautical Chart Branch

  
Chief, Division of Charts

  
Chief, Section of Hydrography

  
Chief, Division of Coastal Surveys

