

7058

Diag'd. on Diag. Ch. No. 1202

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. LY-2345 Office No. H-7058

LOCALITY

State Maine

General locality Approaches to Jericho Bay

Locality

1945

CHIEF OF PARTY

L. P. Raynor

LIBRARY & ARCHIVES

DATE Aug. 26, 1946

B-1870-1 (1)

7058

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. H-7058

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-7058

Field No. LY 2345

State MAINE

General locality ~~Coast of Maine, Approaches to E. Penobscot Bay and Jericho Bay~~

Locality Approaches to Jericho Bay
Ile au Haut - Long Island

Scale 1:20,000 Date of survey 4 September - 1 October 1945

Instructions dated 7 May 1941; 11 March 1944

Vessel Ship LYDONIA

Chief of party L. P. Raynor, Commander, USC&GS

Surveyed by Lt. Comdr. E. B. Latham, Lt. Comdr. P. L. Bernstein, Lieut. C.W. Clark

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

Protracted by J.D. Curd

Soundings penciled by J.D. Curd & A. G. Atwill

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

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

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC
SURVEY H- 7058 (Field No. LY 2345)

COAST OF MAINE
APPROACHES TO E. PEMOBSCOT BAY AND JERICHO BAY
ISLE AU HAUT - LONG ISLAND

Scale 1:20,000

PROJECT CS-265 - 1945

Ship LYDONIA - Comdr. L. P. Raynor, Commanding

Surveyed by: Lt. Comdr. E. B. Latham
Lt. Comdr. P. L. Bernstein
Lieutenant C. W. Clark

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 an area off the Coast of Maine, Approaches to E. Penobscot Bay and Jericho Bay, from Isle au Haut to Long Island. The hydrography covers an area bounded on the NW by the offshore line of floating aids to navigation, on the SW by the junction with sheet H-7056¹⁹⁴³ (Field No. LY 2145), on the SE and NE by the following approximate positions: (1) Latitude 43-54.7, Longitude 68-37.0; (2) Lat. 44-03.2, Long. 68-20.0; (3) Lat. 44-06.3, Long. 68-23.5. This survey joins previous surveys H 1074 (scale 1:20,000 date: 1870), H 1372 (scale: 1:40,000 date: 1877), and H 1453 (scale: 1:10,000 date: 1879).

C. VESSELS AND EQUIPMENT:

The hydrography on this survey covers an area roughly rectangular in shape. The offshore section of the survey, approximately 0.8 of the area covered, was surveyed by the Ship LYDONIA. The inshore balance was surveyed by Launch 82, basing from the Ship LYDONIA.

All soundings by the ship were obtained with the Dorsey Model III Fathometer No. 36; Submarine Signal Co. Model 808 Depth Recorder No. 75 was operated in conjunction with the Dorsey fathometer for check purposes.

The soundings in the work done by Launch 82 were obtained with Submarine Signal Co. Model 808 Depth Recorder No. 76.

No soundings were recorded during turns.

D. TIDE AND CURRENT STATIONS:

The tide station for this survey was the Matinicus, Maine (Wheaton Island) tide station. A portable automatic tide gage was maintained at that station. No corrections were applied to recorded tides to obtain tide reductions.

No current stations were occupied.

E. SMOOTH SHEET:

The smooth sheet is to be plotted by the Norfolk Processing Office.

F. CONTROL STATIONS:

The triangulation stations used for control (see signal list attached) were included in the 2nd order scheme done in 1934 by K. G. Crosby, Chief of Party. The marked topo stations appear on air photographic survey No. T-8571. Signals BEA and TREE were located by one 4"-theodolite cut to each signal from Great Spoon Island, 1868-1934 and sufficient sextant cuts from the ship to locate the signals with the required accuracy.

G. SHORELINE AND TOPOGRAPHY:

No inshore hydrography was done in this survey; there are no shoreline revisions and no low-water line is included within the limits covered.

H. SOUNDINGS:

All soundings obtained by the ship were measured by the Dorsey Model III fathometer; a Model 808 Depth Recorder was operated in conjunction with the Dorsey fathometer. The fathogram from the Depth Recorder was used to check the soundings recorded from the Dorsey fathometer in cases where the soundings were recorded incorrectly. In each case where recorded soundings were corrected from comparisons with the fathogram the sounding had been read one revolution of the fathometer dial (120 feet) in error or recorded 100 feet in error through the recorder's misunderstanding. The depth recorder was employed for this purpose only; the index setting was not checked accurately, hence the accuracy of the depths recorded on the fathogram does not meet survey standards.* The Depth Recorder graph, therefore, should be used only for the intended checking.

Except for the use of the Depth Recorder in checking the records all sounding was done by standard methods. Corrections for temperature and salinity, index error, draft and squat were determined and the results furnished to the Norfolk Processing Office.

All soundings obtained by Launch 82 were determined by Model 808 Depth Recorder, using standard procedure. Bar checks, supplemented by temperature and salinity correction curves, were taken to determine corrections to be applied to recorded depths; these corrections were furnished the Norfolk Processing Office.

* also used for least depths on shoals by equating Dorsey and 808 depths in smooth bottom areas.

I. CONTROL OF HYDROGRAPHY:

This entire survey was controlled by the 3-point fix method of horizontal control, using sextant angles and shore signals.

J. ADEQUACY OF SURVEY:

This survey is complete and adequate for charting purposes. A few of the shoaler soundings from prior surveys should be retained. A few additional split lines may be desirable to more accurately delineate bottom contours eastward of Longitude 68-28.

Present work accepted.

K. CROSS LINES:

Cross lines were run but due to the irregularities of the bottom in the area covered by this survey they can serve as rough checks only.

L-M. COMPARISON PRIOR SURVEYS AND CHARTS:

The 93-foot charted sounding in Latitude 44-04.4⁸₅, Longitude 68-23.25 which was noted in the review of chart 308 was verified and a least depth of 81 feet was found nearby.

chart 308
The charted sounding of 111 feet in Lat. 44-04.55, Long. 68-21.8 appears to be in error by 10 fathoms as noted in the review of chart 308 since the ~~regular system of sounding lines~~ *PRESENT SOUNDINGS* on each side of it show 17⁸ feet and 166⁵ feet respectively and a crossline on the east end of the sheet shows 170 feet. There is a shoaler sounding of 129 feet about 200 meters to the southward.

*111' retained
Proximity to present 12.8 ft. sdg. warrants retention.*

ch. 308
In the vicinity of the charted sounding of 84 feet in Lat. 44-04.0²₅, Long. 68-26.2 a least depth of 80 feet was found.

A sounding of 94 feet was found as an extension of the ledge on which the charted sounding of 87 feet in Lat. 44-03.7, Long. 68-28.3² is shown on chart 308.

In general the charted shoaler soundings in this area were verified and in most cases lesser depths were found but in general these depths were to the southeastward of those shown on the chart.

probably not significant
Grumpy Ledge was thoroughly developed and a sounding of 83 feet was found in Lat. 43-58.2², Long. 68-31.7². In the vicinity of the charted sounding of 84 feet in Lat. 43-58.18, Long. 68-31.30² depths of 109 and 110 feet were found on adjacent sounding lines. The charted sounding of 84 feet should be retained.

108

N. DANGERS AND SHOALS:

No new shoals dangerous to navigation were found.

O. COAST PILOT INFORMATION:

No additional Coast Pilot information was obtained on this survey.

P. AIDS TO NAVIGATION :

All floating aids to navigation within the area covered by this survey were located and depths determined. They have been indexed on the first pages of sounding volume No. 1 pertaining to this survey. Their geographic positions and final depths will be furnished by the Processing Office after completion of the smooth sheet.

see plotted smooth sheet positions

Q. LANDMARKS FOR CHARTS:

There are no landmarks suitable for charting within the area covered by this survey.

R. GEOGRAPHIC NAMES :

No new geographic names are recommended for charting purposes in this area.

814

Respectfully Submitted:

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

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

Approved and Forwarded:

L. P. Raynor
L.P. Raynor,
Commander, USC&GS.

APPROVAL SHEET LY-2345 H-7058

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



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

DATE	DAY		VOL.	POSITIONS	STAT. MI.	TOTAL STAT. MILES
	LYDCONIA	Launch 82			SNDGS.	
9/4	A		1	49	17.8	65.0
9/5	B		1-2	259	88.3	123.4
9/13	C		2-3	257	91.0	204.4
9/14	D		3-4	315	115.8	152.7
9/17	E		4	214	74.4	116.0
9/17		a	5	165	46.5	55.0
9/19	F		4-6	108	35.4	61.9
9/27	G		6	253	82.5	106.1
9/27		b	5-7	147	37.3	41.9
10/1		c	7-9	151	39.8	66.0
10/1	H		8	268	94.5	131.4
TOTAL:				2186	703.3	1023.8

Area: Launch 9.1 Sq. Stat. Miles
 Ship 79.4 Sq. Stat. Miles
 Total: 88.5

Stat. mi. Cross Lines: 35.1
 % Cross Lines: 5%

SIGNAL LIST, SHEET LY 2345

TRIANGULATION STATIONS

BACK (Saddleback Ledge Light House, 1861 - 1934)
 BURNT (Burnt Coat Light House, 1875 - 1934)
 MAR (Marshall I., 1907 - 1934)
 SPOON (Great Spoon I., 1868 - 1934)

T-8571

GOOSE (GOOSE 1944, marked topo. station)
 GREEN (GREEN 1944, marked topo. station)
 JOHN (JOHN 1944, marked topo. station)

HYDROGRAPHIC

BEA
 TREE

ADDENDUM

to accompany

HYDROGRAPHIC SURVEY H-7058 (Field No. Ly-2345)

Corrections shown in red ink in the main body of this report were made in the Hydrographic Section of the S.E. District, Norfolk, Va.

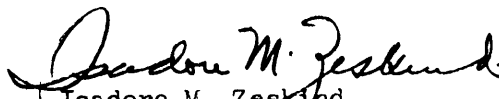
Roaring Bull Ledge Whistle Buoy; Lat. 43° 58.98' and long. 68° 37.78

Attention is directed to the conflicting data given in the sounding records to determine the location of this buoy. See position 1 b (red), vol. 5, pg. 54; position 101 E (red), vol. 4 pg. 32 and position 254 G (red), vol. 6, page 68. *One pos. rejected. other positions check*

Shoreline. No shoreline is shown on this sheet as the topographic sheets were not received from the Washington Office before this survey was ready for transmittal.

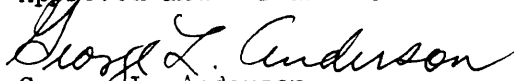
Shoreline sufficient to identify area ^{was} inked on in Washington Office.

Respectfully submitted,


Isadore M. Zeskind,
Cartographic Engineer

Norfolk, Va.
August 22, 1946

Approved and Forwarded.


George L. Anderson
Supervisor SE District

Revised

TIDE NOTE FOR HYDROGRAPHIC SHEET

October 2, 1946

~~Division of Hydrography and Topography:~~

Division of Charts: H. W. MURRAY

Plane of reference approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET 7058

Locality Approaches to Penobscot Bay, Coast of Maine

Chief of Party: L. P. Raynor in 1945
Plane of reference is mean low water, reading
2.8 ft. on tide staff at Matinicus
11.6 ft. below B. M. 2
8.6 ft. on tide staff at Portland
19.0 ft. below B. M. 31

Height of mean high water above plane of reference is 9.1 feet.

Condition of records satisfactory except as noted below:

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

GEOGRAPHIC NAMES

Survey No. *H7058*

Name on Survey											
	A	B	C	D	E	F	G	H	K		
<u>Maine</u>			(for title)							USGB	1
<u>Jericho Bay</u>		"	"								2
<u>Long Island</u>											3
<u>John Island</u>											4
<u>Marshall Island</u>											5
<u>Great Spoon Island</u>											6
<u>Isle au Haut</u>											7
<u>Grumpy Ledge</u>											8
											9
											10
											11
											12
											13
											14
<u>Matinicus</u>			(location of tide staff)								15
<u>Portland</u>		"	"	"							16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

Names underlined in red approved
by L. Heck 01/23/46

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7058.

Records accompanying survey:

Boat sheets .2 part sounding vols. .9....; wire drag vols.; bomb vols.; graphic recorder rolls 3.&1, fathogram check special reports, etc.

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

Number of positions on sheet		.2186.
Number of positions checked		.66...
Number of positions revised		..18..
Number of soundings revised (refers to depth only)		...4..
Number of soundings erroneously spaced		...0..
Number of signals erroneously plotted or transferred		...0..
Topographic details	Time	..11..
Junctions	Time	..0..
Verification of soundings from graphic record	Time	..16..

Verification by *Herbert W. Burgoyne*... Total time .228... Date *11/25/46*.

Reviewed by... *R.H. Carstens*... Time *6.4*... Date *12/31/46*.

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 7058

FIELD NO. LY-2345

Maine, Approaches to Jericho Bay
Surveyed in Sept. to Oct. 1945 Scale 1:20,000
Project No. CS-265

Soundings:

Control:

808 Fathometer
Dorsey III

Sextant fixes on shore signal

Chief of Party - L. P. Raynor
Surveyed by - L. P. Raynor, E. B. Latham, P. L. Bernstein,
C. W. Clark and L. V. Evans
Protracted by - J. D. Curd
Soundings plotted by - J. D. Curd and A. G. Atwill
Verified and inked by - H. W. Burgoyne
Reviewed by - R. H. Carstens, December 31, 1946
Inspected by - H. W. Murray

1. Shoreline and Signals

Shoreline sufficient to identify the area is from air photographic surveys T-8552, T-8553, T-8554 and T-8571 of 1944-46.

Signals are adequately discussed in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in satisfactory agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were satisfactorily drawn except for small areas in the northwest and southeast parts of the survey where the development is too sparse to satisfactorily delineate the 40-fm. curve. The 25-fm. curve has been added to define more clearly the configuration of the bottom.

The bottom is very irregular. Numerous irregular submerged knolls and ridges formed by glacial deposits are scattered throughout the area. Most bottom features are covered by depths ranging from 10 to 50 fms.

4. Junctions with Contemporary Surveys

The junctions with H-7056 (1945) on the west will be considered when that survey is reviewed.

No other contemporary surveys adjoining this area have been registered at the present time.

5. Comparison with Prior Surveys

H-1074 (1870) 1:20,000
H-1372 (1877) 1:40,000
H-1453 (1879) 1:10,000

These surveys taken together cover the entire area of the present survey. Agreement with present depths is generally within 2 fms.

The following soundings (charted) which were plotted erroneously on the original surveys have been revised and are now in agreement with present depths:

<u>Prior Sounding</u>	<u>Present Depth</u>	<u>Lat.</u>	<u>Long.</u>	<u>Chart</u>
156	170	43° 57.57'	68° 31.06'	1202
198	247	44° 00.88'	68° 31.95'	309
144	200	44° 01.42'	68° 31.80'	309
108	160	44° 02.00'	68° 25.61'	1202

Delineation of bottom features is more complete on the present survey than on the prior surveys. However, 24 prior soundings have been carried forward to supplement present depths.

The present survey including the previously mentioned additions and supplementary bottom characteristics is adequate to supersede these prior surveys.

6. Comparison with Chart 225 (Latest print date 8/3/46)
Chart 308 (Latest print date 7/13/46)
Chart 309 (Latest print date 8/3/46)
Chart 1202 (Latest print date 5/4/46)

A. Hydrography

The charted hydrography originates principally with the previously discussed surveys which need no further consideration.

No source could be found for the 144 (chart 1202) which falls in present depths of 241 to 249 ft. in lat. 44° 02.49', long. 68° 22.45'. The 144 is probably in error by 100 ft. and first appeared on chart 1202 in 1918 when that chart was constructed to supersede chart 103. The present hydrography is adequate for charting and the 144 may therefore be disregarded.

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

The field plotting was accurately done.

The sounding records and Descriptive Report are complete and comprehensive except that a list of fathometer corrections was not included.

8. Compliance with the Project Instructions

The present survey adequately complies with the Project Instructions except that no bottom characteristics were taken.

9. Additional Field Work Recommended

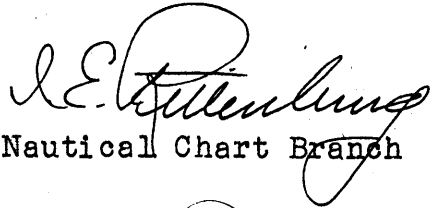
A. Additional split lines between widely spaced lines in the vicinity of lat. 44° 03.0', long. 68° 20.7' and lat. 43° 58.2', long. 68° 39.4' are recommended in the area delineated by the 40-fm. curve.

done in part on H-8031

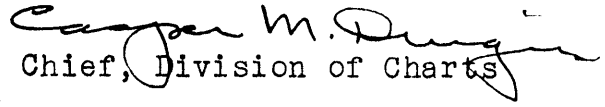
B. Additional development in the vicinity of the following soundings should also be accomplished:

<u>Sounding</u>	<u>Lat.</u>	<u>Long.</u>	<u>Remarks</u>
105	44° 01.90'	68° 24.02'	Present survey depth
63	44° 05.38'	68° 24.60'	Present survey depth
84	43° 58.18'	68° 31.24'	From H-1074 (1870)
174	43° 59.66'	68° 28.71'	From H-1074 (1870)
204	43° 59.42'	68° 28.20'	From H-1372 (1877)
144	44° 02.24'	68° 23.78'	From H-1372 (1877)
87	44° 03.66'	68° 28.22'	From H-1372 (1877)

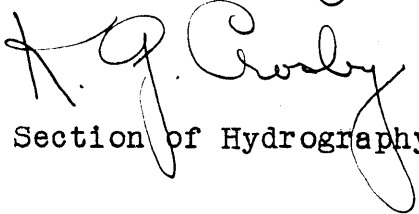
Examined and approved:



Chief, Nautical Chart Branch



Chief, Division of Charts



Chief, Section of Hydrography



Chief, Division of Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7058

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
1/31/47	225	J. Richardson	Before <u>After</u> Verification and Review <i>Examined for critical information only pending reconstruction of chart.</i>
3/3/47	309	J. Walker	Before <u>After</u> Verification and Review <i>Examined</i> <i>- no cor. now - wait for reconstruction</i>
4-30-47	1203	M. Andros	Before <u>After</u> Verification and Review <i>Examined</i> <i>for critical information only.</i>
14 Aug 47	305	H. Nichols	Before <u>After</u> Verification and Review <i>Completely applied</i>
17 Aug 47	1202		
19 Aug 47	1202	Sharon Nichols	Before <u>After</u> Verification and Review <i>Completely applied</i>
1/21/48	70	H. MacEwen	Before <u>After</u> Verification and Review <i>a few critical soundings only.</i>
9/9/48	322	G. Bluet	Before <u>After</u> Verification and Review
Nov. 53	1000	H. J. Stegman	Before <u>After</u> Verification and Review <i>thru 1106</i>
1/19/55	308 Reconstr.	J. E.	Before <u>After</u> Verification and Review
Aug 55	1000 1000L	Nichols	Before <u>After</u> Verification and Review <i>complete appl</i>
5-8-63	Reconst 1203	M. Rogers	<i>Appl'd thru charts 308 + 322 after ver. + review.</i>
8-6-66	1202 Reconstr	G. Johnson	<i>Fully applied after V&R, in part thru cht 308.</i>

M-2168-1

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