

ORIGINAL

7057

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. LY-2245 Office No. H-7057

LOCALITY

State MAINE

General locality APPROACH TO PENOBSBOT BAY

Locality OFF MATINICUS ISLAND

194 5

CHIEF OF PARTY

L. P. Raynor

LIBRARY & ARCHIVES

DATE JUN 7 1946

B-1870-1 (1)++

7057

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

H7057

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-7057

Field No. Ly-2245

State Maine

General locality Approaches to West Penobscot Bay

Locality Southwest Off Matinicus Island - Southeast of Metinic Island

Scale 1:20,000 Date of survey 6 August - 20 September 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. L. C. Johnson; Lt. Comdr. E. B. Latham; Lt. Comdr. P. L. Bernstein

Soundings taken by fathometer, graphic recorder, hand lead, wire Dorsey Model III Fathometer

Protracted by Mary T. Miller

Soundings penciled by Mary T. Miller

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

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

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-7057 (Field No. Ly-2245)

COAST OF MAINE, APPROACHES TO WEST PENOBSCOT BAY
SW OF MATINICUS ISLAND-SE OF METINIC ISLAND

Project CS-265

1945

Scale 1:20,000

Ship LYDONIA

L. P. Raynor, Comdg.

Surveyed by: Lieut. Comdr. L. C. Johnson
Lieut. Comdr. E. B. Latham
Lieut. Comdr. P. L. Bernstein

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 includes a part of the Approaches to West Penobscot Bay, Maine, between Matinicus Island and Metinic Island. The hydrography covers the area bounded by the following approximate positions:

- (1) Lat. 43° 46.0' Long. 68° 57.1'
- (2) Lat. 43° 46.0' Long. 69° 06.8'
- (3) Lat. 43° 49.2' Long. 69° 01.8'
- (4) Lat. 43° 49.0' Long. 68° 56.6'

Field work was begun on 6 August 1945 and completed on 20 September 1945. This survey joins H-6982 (1:20,000, 1944-45) to the northwest, Wire Drag survey 3528 (, 1913) to the north and east, H-1836 (1888) to the south.

C. VESSEL AND EQUIPMENT:

All soundings on this survey were obtained by the Ship LYDONIA using Dorsey Model III Fathometer No. 36. No soundings were recorded during turns.

D. TIDE AND CURRENT STATIONS:

The tide station for this survey was at Matinicus, Maine, (Wheaton Island), Lat. 43° 51.7', Long. 68° 52.9'; a portable automatic tide gage was maintained at that station. No corrections were applied to the tides recorded. (field)

No current stations were occupied.

E. SMOOTH SHEET:

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

F. CONTROL STATIONS:

Signals JOHN (John 1913-1934) and MAT (Matinicus ^{Rock} ~~Body~~ L.H., South, 1859-1934) were included in the 1934 second order triangulation by K. G. Crosby, Chief of Party. Note: Use position given on Acc. No. G-6053-156.

Signal GREEN (Met 1944, marked topo station) is from air photographic survey T-8004.

Signal GRAY (No. 2157) is from air photographic survey T-8006.

Signal NIC was transferred from hydrographic survey H-6982, on which it was plotted from an observed azimuth and taped distance from triangulation station Metinic 1858-1934.

G. SHORELINE AND TOPOGRAPHY:

The hydrography on this survey was entirely offshore; there is no low water line and no shoreline details were surveyed.

H. SOUNDINGS:

All soundings were obtained by standard methods, using the Dorsey Model III Fathometer. The customary corrections for temperature and salinity, draft, squat, and instrumental index were determined and have been furnished to the Processing Office.

I. CONTROL OF HYDROGRAPHY:

The three-point fix method of horizontal control, employing sextant angles and shore signals, was used exclusively for this survey.

J. ADEQUACY OF SURVEY:

This survey is complete and adequate to supersede previous surveys for charting the area covered.

K. CROSSLINES:

Sufficient crosslines were run to check the regular system of sounding lines and comply with the instructions. Due to the irregularities of the bottom they can only serve as rough checks.

L.*M. COMPARISON WITH PRIOR SURVEYS AND CHARTS:

In general the depths obtained in prior surveys and with charts agreed with the work of this survey with some slight changes perhaps in location. This survey, however, has more adequately developed the bottom contours and should be used in the future for charting purposes in this area.

N. DANGERS OR SHOALS:

No shoals or dangers to surface navigation were found in the area covered by this survey.

O-P-Q-R.

No additional information or recommendations are made to cover these subheadings. .

S-Z

These subheadings do not apply.

Respectfully submitted



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



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

Approved and Forwarded



L. P. Reynor
Commander, USC&GS

APPROVAL SHEET LY-2245 H-7057

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


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

STATISTICS, SHEET LY 2245

<u>DATE</u>	<u>DAY</u>	<u>VOL.</u>	<u>POSITIONS</u>	<u>STAT. MI.</u> <u>SNDGS.</u>	<u>TOTAL STAT. MI.</u>
8/6	A	1	69	23.8	76.6
8/8	B	1	96	32.5	82.6
8/9	C	1	81	27.0	137.0
8/16	D	1-2	182	74.9	109.2
8/17	E	2	20	6.4	80.0
8/18	F	2-3	218	78.0	98.1
8/23	G	3	53	17.4	59.0
9/20	H	3	64	19.4	49.4
			<u>783</u>		
TOTALS:			682	279.4	591.9
TOTAL AREA (square statute miles)					27.7
Statute Miles of Cross Lines					22.8
% of Cross Lines					8.2%

LIST OF SIGNALS, SHEET LY 2245

TRIANGULATION STATIONS

JOHN (JOHN, 1913 - 1934)
 MAT (Matinicus Rock Light House, South, 1859 - 1934)

<u>T-8006</u>	<u>T-8004</u>	<u>H-6982</u>
GRAY (#2157)	GREEN (MET, 1944, marked topo station)	NIC

A D D E N D U M

to accompany

HYDROGRAPHIC SURVEY NO. H-7057 (Field No. Ly-2245)


This sheet was processed in the Hydrographic Section of the
Southeastern District at Norfolk, Virginia.

Respectfully submitted,


Isadore M. Zeskind
Cartographic Engineer

Norfolk, Virginia
June 5, 1946

Approved & Forwarded


George L. Anderson
Supervisor, S.E. District

742m

TIDE NOTE FOR HYDROGRAPHIC SHEET

June 18, 1946

~~Division of Hydrography and Topography:~~

Division of Charts: H. W. MURRAY

Plane of reference approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 7057

Locality Approaches to Penobscot Bay, Coast of Maine

Chief of Party: L. P. Raynor in 1945
Plane of reference is mean low water, reading
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 8.9 feet.

Condition of records satisfactory except as noted below:

E. C. McKay
Section

Chief, ~~Division of Tides and Currents.~~

GEOGRAPHIC NAMES

Survey No.

Name on Survey	A	B	C	D	E	F	G	H	K	
<u>Penobscot Bay</u>										1
<u>Matinicus Island</u>										2
<u>Metinic Island</u>										3
<u>Ragged Island</u>										4
										5
										6
										7
										8
										9
										10
										11
<u>Portland</u>										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Names underlined in red approved
by L. Heck on 7/23/46

(location of tide staff)

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. **H-7057**

Records accompanying survey:

Boat sheets **..1..**; sounding vols. **..3..**; wire drag vols.;
 bomb vols.; graphic recorder rolls **.1..**;
 special reports, etc.

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

Number of positions on sheet		783	
Number of positions checked	<i>Protractor out of adjustment</i>	85	}
Number of positions revised		58	
Number of soundings revised (refers to depth only)		21	
Number of soundings erroneously spaced		369 (approx.)	
Number of signals erroneously plotted or transferred		0	
Topographic details	Time	0	
Junctions	Time	3528 W.D. 6982 Not verif.	
Verification of soundings from graphic record	Time	0	
Verification by <i>F. J. ORTIZ</i>	Total time	<i>118 min</i> <i>128 hrs.</i>	Date <i>7/14/46</i>
Reviewed by <i>J. F. Jordan</i>	Time	<i>.13</i>	Date <i>7/22/46</i>

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 7057

FIELD NO. LY-2245

Maine, Approach to Penobscot Bay, off Matinicus Island
Surveyed in August to September, 1945 Scale 1:20,000
Project No. CS-265

Soundings:

Dorsey III Fathometer

Control:

Three-point fixes on shore
signals

Chief of Party - L. P. Raynor
Surveyed by - L. C. Johnson, E. B. Latham, P. L. Bernstein
Protracted by - M. T. Miller.
Soundings plotted by - M. T. Miller
Verified and inked by - F. J. Ortiz
Reviewed by - G. F. Jordan, July 22, 1946
Inspected by - H. W. Murray

1. Shoreline and Control

Sources of shoreline and control are adequately listed
in the descriptive report.

2. Sounding Line Crossings

Satisfactory.

3. Bottom Configuration

The bottom is very irregular and is satisfactorily de-
lined by depth curves.

A shoal rising 100-ft. between consecutive soundings at
lat. 43° 46.14', long. 69° 04.68', is probably a rocky
formation. The 181-ft. depth here is confirmed by a
second line run almost directly over the first line.

4. Junctions

The junction on the west will be considered when H-6982 (1944-45) is verified.

No other contemporary surveys adjoin the present survey.

5. Comparison with Prior Surveys

a. H-1051 (1866-68) 1:20,000 scale

Soundings on this prior survey are in very good agreement with the present survey. However, the more detailed hydrography on the present survey supersedes this prior survey in the common area.

Bottom Characteristics, however, have been carried forward.

b. H-1836 (1888) 1:40,000 scale

A few soundings on this prior survey overlap the present survey on the south and show differences of 40 - to 100-ft. The prior survey is entirely superseded within the common area.

6. Wire Drag Surveys

The effective depths on H-3528 (1913) W.D. do not conflict with depths on the present survey.

7. Comparison with Chart 225 (Latest print of March 30, 1946)
Chart 312 (Latest print of August 4, 1945)

a. Hydrography

Charted soundings originate entirely from the two prior surveys discussed in paragraph 5.

b. Aids to Navigation

No aids to navigation are charted within the area of the present survey.

8. Condition of Survey

a. The sounding records and descriptive report are complete in all detail.

b. The smooth plotting was satisfactory except for one deficiency. Fifty-eight positions in the lower left corner of the sheet were replotted. It is assumed that the second extension arm of the protractor was out of adjustment.

c. No bottom characteristics were recorded.

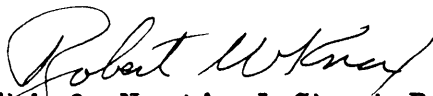
9. Compliance with Project Instructions


Satisfactory.

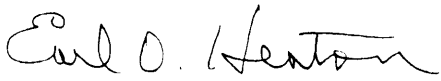
10. Additional Field Work

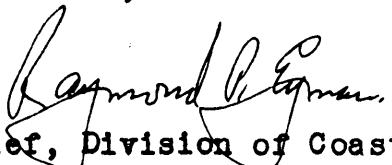
This is a basic survey which requires no additional field work.

Examined and approved:


Chief, Nautical Chart Branch


Chief, Chart Division


Chief, Section of Hydrography


Chief, Division of Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. **H7057**

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
1/31/47	225	J. Richardson	Before <u>After</u> Verification and Review Examined for critical information only. Chart 225 is to be reconstructed.
4-20-47	1203	M. Mulroe	Before <u>After</u> Verification and Review <i>Partially applied</i>
1/21/48	70	H. Mae Ewen	Before <u>After</u> Verification and Review <i>a few critical soundings only.</i>
2/16/48	71	J. Everett	Before <u>After</u> Verification and Review
8/31/48	322	J. Everett	Before <u>After</u> Verification and Review
Nov. 53	1006	H. J. Heyman	Before <u>After</u> Verification and Review <i>thru chart 1106</i>
Aug 55	1000 1000 L	Trickels	Before <u>After</u> Verification and Review <i>complete appl.</i>
5-8-63	Reconst. 1203	M. Rogers	Before <u>After</u> Verification and Review <i>thru chart 322</i>
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review
			Before <u>After</u> Verification and Review

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.