6992

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. 614 A *Office No.* H-6992

LOCALITY

State Maine

General locality Monhegan Island

Locality Same

1944

CHIEF OF PARTY

L.P. Raynor

LIBRARY & ARCHIVES

DATE MAY 31 1945

8-1870-1 (1)++

6992

Form 537
Ed. Dec. 1930

REG. NO. H-6992

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.

Field No. 614 A

REGISTER NO. H-6992

State Maine

General locality Monhegan Island

Locality Inshore Launch Hydrography Monhegan Island

Scale 1:10,000 Date of survey Sept. 17 to Oct. 5, 1944

Vessel LYDONIA - Launches 79, 100, 82.

Chief of Party L.P. Raynor

Surveyed by [redacted] G.W. Lovesee, and [redacted] C.R. Reed

Protracted by M.E. Byrd

Soundings penciled by M.E. Byrd

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by

Inked by Herbert W. Burgoyne

Verified by Herbert W. Burgoyne

Instructions dated May 7, 1941 & March 11, 1944., 19

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

U. S. GOVERNMENT PRINTING OFFICE

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SHEET H 6992 (Field No. 614A - Scale 1:10,000)
Monhegan Island - Maine
Project CS-265 - 1944
Ship LYDONIA - L. P. Raynor, Commanding
Surveyed by - G. W. Lovesee
C. R. Reed

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

B. SURVEY LIMITS AND DATES. The survey includes the vicinity of Monhegan Island to a junction with previous contemporary surveys on the west, north, and east, and to deep water on the south. Field work on the sheet began September 17 and ended October 5, 1944. The survey joins Sheet H 6861 (1:20,000 - 1943) on the north and west and sheet H 6982 (1:20,000 - 1944) on the east.

C. VESSEL AND EQUIPMENT. Launches 79, 82, and 100 were used with Portable 808 Depth Recorders (No. 75 for Launch 79 and No. 55 for Launches 82 and 100).

D. TIDE AND CURRENT STATIONS. Tide station for the survey was located at Burnt Island Coast Guard Wharf lat. 43° 52.3', long. 69° 17.7'. The difference between Monhegan and Burnt Island is only 0.1 foot and 5 minutes in time and no corrections to observed tides were applied.

No current stations in the area of the survey were occupied.

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

F. CONTROL STATIONS. The only triangulation station on the sheet is Monhegan Light 1859, 1934. Station Burnt Island 2, 1934 was used in construction of arcs for development of the 18 foot charted depth at lat. 43° 46.6', long. 69° 16.6'.

Hydrography was accomplished on a chart paper print of topographic sheet T ~~5679~~ 5620 and topographic signals were those located thereon.

Two hydrographic signals were used. Their location is indexed in volume 1.

T-5620

G. SHORELINE AND TOPOGRAPHY. Shoreline and topographic detail is shown directly on the print of Sheet T ~~5679.~~ Low water line has been sketched in in part. The shore line is mostly rather steep too.

H. SOUNDINGS. Soundings were obtained with an 808 Portable Depth Recorder using standard methods. Handlead and sounding pole were used on detached soundings where possible.

I. CONTROL OF HYDROGRAPHY. Three point fixes were used for control of hydrography. A three arm protractor was used in plotting except in the development of the 18 foot charted depth at lat. 43° 46.6', long. 69° 16.6' where arcs were used in plotting using signals BUR, HIT, and YAK.

J. ADEQUACY OF SURVEY. The survey is complete and adequate to supersede prior surveys for charting. In a few places depths deeper than "D" scale on the 808 fathometer occurred and these should be plotted as "no bottom" at 160 feet (less tide). Unsatisfactory no bottom soundings not inked. Did not shift to fathom phase in these cases.
Junctions with adjoining surveys are satisfactory and no holidays exist, other than those caused by omission of "no bottom" soundings.

K. CROSSLINES. Sufficient crosslines were run to check the sounding lines. Discrepancies are caused by rough, rocky bottom.

L. COMPARISON WITH PRIOR SURVEYS. Inasmuch as prior surveys are incomplete and more or less of a reconnaissance survey in nature this comparison is omitted.

M. COMPARISON WITH CHART. Tides used in plotting the boat sheet are Portland, Maine predicted tides and they apply to the following comparisons.

Chart 312 and 313 (area appears on both).

The least depth obtained by fathometer on Allen Shoal (charted 18 feet) is 26 feet at lat. 43° 46.61', long. 69° 16.59'. A hand lead sounding of 39 feet wasfound on another part of the same shoal (lat. 43° 46.59', long. 69° 16.68') as a check on the accuracy of the fathometer in this vicinity. It is recommended that the 18 foot charted depth be continued unless later disproved by wire drag. ✓

A least fathometer sounding of 26 feet was obtained on Gull Rock Ledge at lat. 43° 45.07', long. 69° 18.25' where 22 feet is charted. It is recommended that the 22 foot charted depth be continued until disproved by wire drag. ✓ 23 ft in prior records

A sounding of 5 feet (rocky) was obtained on Sunken Duck Rock (lat. 43° 46.74', long. 69° 19.58') where 6 feet is charted. ✓

A rock bare 3 feet at low water was found at lat. 43° 45.97', long. 69° 19.68' about 70 meters southwest of a charted sunken rock. ✓ The symbol should be changed to a rock awash symbol and moved to the new position.

Numerous other differences occur but these are the principle ones.

N. DANGERS AND SHOALS. All dangers have been discussed under the previous heading. ✓

O. COAST PILOT INFORMATION. Information as listed in the Coast Pilot is adequate except that a depth of *9 feet was found in the northern entrance to Monhegan Island instead of 12 feet, a depth of 5 feet instead of 6 feet was found on Sunken Duck Rock and a depth of 26 feet instead of 33 feet (5½ fathoms) was found on Allen Shoal.

* Believe 9 ft from boat sheet; smooth sheet shows 7 ft and 6 ft, which may be on edge of channel.

P. AIDS TO NAVIGATION. The floating aids to Navigation located are indexed in the front of volume 1.

Q. LANDMARKS FOR CHARTS. No landmarks are recommended other than the fixed aids to navigation already charted. ✓

R. GEOGRAPHIC NAMES. No new geographic names are recommended. L-H. ✓

S - Z. Remaining sub-headings do not apply.

Forwarded, approved

[signature], Comdr. C&GS
Cmdr. Chief Div. 1

Respectfully submitted

C.R. Reed

C.R. Reed, Lt. Comdr.
USC&GSurvey.

APPROVAL SHEET F 614 A H-6992 (1944)

The boat sheet was inspected after completion and sounding records, occassionally. Both are approved.

L P Raynor

LP Raynor, Comdr C&GS
Commading Ship LYDONIA

STATISTICS

614 A

Date	Day L.82	Day L.79	Day L.100	Volume	Soundings	Positions	Statute Miles
9-17	a			1	1	101	12.8
9-18	b			1	4	150	24.6
9-30	c			1&2	1	127	15.7
9-30		a		3	15	119	15.0
10-2	d			2	0	141	17.5
10-4			a	4	0	86	8.3
10-5			b	4	2	99	11.8
					23	824	105.7

5.7 Miles (statute) of cross lines or 5.7% on this sheet.?

4.2 Square statute miles of hydrography on this sheet.

TIDAL NOTE.

Sheet 614 A, 1944. Registry No. H-6992

The Burnt Island Tide Gage was used for tide reducers on this sheet.

Mean Low Water is used as the plane of reference. No correction for difference in time or height need be applied.

The location of the Burnt Island Tide Gage is at latitude 43° 52.33', longitude 69° 17.73'. Mean low water on the staff is 2.6 feet.

The predicted tides at Portland, Maine were used for reducers for all soundings on the boat sheet with no correction for time or height of tide.

List of Signals Used - Sheet H 6992

TRIANGULATION

Burnt Island 2 - 1934 (BUR)
Monhegan Light - 1859 - 1934 (MON)

TOPOGRAPHIC - SHEET T 5679

AIM	IBEX
ANT	INK
APE	JAY
BAR	JOG
BAT	KEA
BEAR	LOP
BUG	MIX
CAT	NAPU
COD	NOSE
CUT	OPE
DAB	OWL
DIG	OX
DOG	PAY
EEL	PIG
ELK	PUG
ERR	RAT
FOX	ROE
FLY	SIT
GAG	SOW
GAR	SWAIN
GNU	TAX
HIT	TEAL
HOG	WOLF

HYDROGRAPHIC

MOC
YAK

A D D E N D U M

HYDROGRAPHIC SHEET NO. H-6992 (614 A Field)

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

All references to depths in the foregoing descriptive report refer to boat sheet soundings.

Respectfully submitted

Isadore M. Zeskind
Cartographic Engineer

Norfolk, Va.
May 29, 1945

Approved & Forwarded

Paul C. Whitney
Supervisor SE District

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. H6992

Records accompanying survey:

Boat sheets ..2.; sounding vols. ...4; wire drag vols. ....;

bomb vols. .....; graphic recorder rolls .7..;

special reports, etc. .....

.....

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

Number of positions on sheet		823
Number of positions checked		68
Number of positions revised		0
Number of soundings recorded		4200 (Approx)
Number of soundings revised (refers to depth only)		3
Number of soundings erroneously spaced		0
Number of signals erroneously plotted or transferred		0
Topographic details	Time	2
Junctions	Time	0
Verification of soundings from graphic record	Time	20

Verification by Herbert W. Burgoyne Total time 129 Date 12/6/45

Review by G. F. JORDAN Time 22 Date 1/5/46

GEOGRAPHIC NAMES

Survey No.

H6992

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
MONHEGAN I.				437	693					1
MANANA I.				"						2
										3
MONHEGAN HBR				"						4
ALLEN SHOAL				437	692					5
GULL RK LEDGE				437	693					6
DUCK RKS				"						7
EASTERN DUCK RK				"						8
										9
SUNKEN DUCK RK				"						10
										11
					[redacted]					12
					L Heck 1/5/46					13
Burnt I.		(location of tide staff)								14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY REGISTRY NO. 6992

FIELD NO. 614-A

Maine, Monhegan Island
Surveyed in Sept. to Oct. 1944 Scale 1:10,000
Project No. CS 265

Soundings:

808 Fathometer
Hand lead
Pole

Control:

Three-point fix on shore signals

Chief of Party - L. P. Raynor
Surveyed by - G. W. Lovesee and C. R. Reed
Protracted by - M. E. Byrd
Soundings plotted by - M. E. Byrd
Verified and inked by - H. W. Burgoyne
Reviewed by - G. F. Jordan, Jan. 5, 1945
Inspected by - H. W. Murray

1. Shoreline and Control

The source of the shoreline and control is given in the descriptive report.

The low water ledge limits were taken from a few minus soundings and limit lines on the boat sheet, using T-960 (1864) as a reference. The ledge limits shown on Chart 313 should be retained in areas along the shoreline where no ledge is shown on the present survey. It is considered impractical to transfer this detail from the 1864 survey on a 1:20,000 scale to the present survey, especially as the islands and rocks are steep to. However, offlying rock detail obtained on the present survey at high water off the north shore of Monhegan Island has been supplemented in red by T-960. Present air photo manuscripts do not show low water detail.

2. Sounding Line Crossings

The agreement of depths at crosslines is satisfactory.

3. Depth Curves and Submarine Relief

All important curves have been satisfactorily drawn. The ruggedness of the bottom is emphasized by deeps of 300-ft. depths northeast and

southeast of Monhegan Island.

4. Junction with Contemporary Surveys

The junctions on the north and west with H-6861 (1944) and on the east with H-6982 (1944) will be considered when those surveys have been verified.

5. Comparison with Prior Surveys

Prior surveys in this area were made between 1860 and 1867. These surveys are superseded in the area of the present survey, with the exception of one critical depth, and bottom characteristics which have been carried forward.

a. H-746 (1860) 1:20,000 scale

One line of soundings on this prior survey crosses the western limits of the present survey. The comparison is unsatisfactory because of the difference in scale, wide spacing of soundings and deep irregular bottom.

b. H-823a (1863) 1:40,000 scale

The comparison of this prior survey with the present survey is unsatisfactory for the same reasons given in the preceding paragraph.

The 93 ft. prior sounding falling in present depths of 234 ft. and shown on Chart 312 at lat. 43° 46.3', long. 69° 17.7' should be disregarded. The development on the present survey is adequate to disprove the 93.

c. H-823c (1867) 1:20,000 scale

The sparseness of soundings on this prior inshore survey do not provide a satisfactory comparison.

The 23 ft. prior sounding, 22 ft. shown on Charts 312 and 313 has been carried forward at lat. 43° 45.07', long. 69° 18.25', as recommended in the descriptive report. Three 23 ft. soundings were obtained on the prior survey in the course of an hour spot investigation for least depth. The 22 (charted) resulted from incorrect coversion of fathom to foot units. Development of the shoal on the present survey resulting in a 26 ft. depth was close and included crossline development, but no spot investigation was made for least depth.

6. Comparison with Wire Drag Surveys

Proposed wire drag surveys have not yet covered the area of the present survey.

7. Comparison with Chart 312 (Latest print of Aug. 4, 1945)
Chart 313 (Latest print of Sept. 1, 1945)

a. Hydrography

The charted soundings are from prior surveys already discussed, with the exception of critical soundings which have been charted from the present survey before verification.

Chart 312

The 18 ft. sounding previously charted on Allen Shoal at lat. 43° 46.6', long. 69° 16.6' should be restored to the chart. The 18 was originally superseded on the chart by 26 ft. reported as the least depth on B.P. 38908, which is advance information of the present survey. The 18 is not considered disproved because no spot investigation was made. The 18 ft. depth is listed in the 1918 coast pilot and in the H.O. Notice to Mariners No. 44 (1921) as a reported depth.

b. Channels

No dredged channels are charted within the limits of the present survey.

c. Aids to Navigation

The present survey aids are in agreement with the charted aids to navigation and satisfactorily mark the features intended.

8. Condition of Survey

The sounding records are neat and legible; the descriptive report is comprehensive; and the smooth plotting is excellent.

The absence of soundings on part of four lines in the vicinity of lat. 43° 46.8', long. 69° 16.8' and on some of the lines between Monhegan Island and Duck Rocks is caused by failure to shift from the foot phase (max. range 160-ft.) to the fathom phase.

9. Compliance with Project Instructions

The survey complies with general instructions for the project.

10. Additional Field Work

The following development or investigation for least depth is desirable:

a. Lat. 43° 46.6', Long. 69° 16.6' - Allen Shoal referred to in par. 7 (a).
b. Lat. 43° 45.6', Long. 69° 18.5' - 23 ft. shoal.
c. Lat. 43° 45.9', Long. 69° 19.8' - 25 ft. shoal.

d. Lat. 43° 46.57', Long. 69° 18.8' - 21 ft. shoal and the gap in hydrography caused by 120 meter spacing of lines 150 meter south, at the junction of foul and channel areas.

Examined and approved:

Robert M. Ward
Chief, Nautical Chart Branch

F. S. Borden
Chief, Chart Division

Earl O. Heaton
Chief, Section of Hydrography

Raymond H. Ingman
Chief, Division of Coastal Surveys

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

14 June 1945.

~~Division of Hydrography and Topography:~~

Division of Charts: Attention: H. W. MURRAY

Plane of reference approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 6992

Locality Monhegan Island, Maine.

Chief of Party: L. P. Raynor in 1944
Plane of reference is mean low water reading
2.6 ft. on tide staff at Burnt Island
17.4 ft. below B. M. 1

Height of mean high water above plane of reference is 9.3 feet.

Condition of records satisfactory except as noted below:

H. A. Marmer
Acting Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 154327

NAUTICAL CHARTS BRANCH

SURVEY NO. 6992

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
6-26-45	312	Streeter	Before ~~After~~ Verification and Review critical adjs. only
6/9/45	313	F.A. McGann	Before ~~After~~ Verification and Review critical adjs.
7/16/45	1203	F.A. McGann	Before ~~After~~ Verification and Review Critical adjs.
2/17/47	Reconst. 313	G Everett	~~Before~~ After Verification and Review
5-8-63	Reconst 1203	M. Rogers	~~Before~~ After Verification and Review thru chart 313
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

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.