

7832

Diag. Cht. No. 1203-3

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC
Field No. Gi-2150 Office No. H-7832

LOCALITY

State MAINE
General locality WEST PENOBSCOT BAY
Locality OFF MONROE ISLAND

19 50

CHIEF OF PARTY

W. F. Malnate

LIBRARY & ARCHIVES

DATE Feb. 19, 1951

8-1870-1 (1)

7832

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-7832

Field No. Gi-2150

State MAINE

General locality WEST PENOBSCOT BAY

Locality OFF MONROE ISLAND

Scale 1:20,000 Date of survey 28 to 29 June 1950

Instructions dated 22 Apr. 1948 & 22 Feb. 1950

Vessel GILBERT

Chief of party W.F. MALNATE

Surveyed by W.F. MALNATE

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

Fathograms scaled by Personnel, Ship Gilbert

Fathograms checked by Personnel, Ship Gilbert

Protracted by W.W. Feazel

Soundings penciled by W.W. Feazel

Soundings in ~~21000~~ feet at MLW ~~21000~~

REMARKS:

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET H-7832 (FIELD NO. GI-2150)

WEST PENOBSCOT BAY, OFF MONROE ISLAND

MAINE

USC&GS Ship GILBERT
PROJECT CS-265

W. F. MALNATE, COMDG.
SCALE 1:20,000

A. PROJECT:

This survey was accomplished in accordance with Supplemental Instructions to the Commanding Officer, Ship GILBERT, 22/MEK, S-2-GI, dated 24 February 1950.

B. SURVEY LIMITS AND DATES:

The north limit of this sheet forms a junction with H-7830 at Latitude $44^{\circ} 08.5'$. On the west limit a junction is formed with H-7831 at Longitude $69^{\circ} 01.0'$. The south limit is coincident with the south limit of new Chart 209 at Latitude $44^{\circ} 03.2'$ and the east limit is coincident with the east limit of new Chart 209 at Longitude $69^{\circ} 00.0'$.

As indicated in the Instructions the purpose of this survey is to provide hydrographic data for new Chart No. 209 which will replace Charts Nos. 320 and 321. This sheet is one of the three contemporary surveys which will encompass the limits of the proposed new chart, the other two being H-7830 (1:10,000) and H-7831 (1:10,000).

The hydrographic survey was accomplished between 28 June to 29 June 1950.

C. VESSEL AND EQUIPMENT:

The Ship GILBERT was used exclusively on this sheet. A 808 type fathometer, No. 53 was used on the ship with an inboard receiver.

The turning radius¹⁰ of the Ship GILBERT is approximately 180 meters at a sounding speed of eight knots.

D. TIDES AND CURRENTS:

One tide station was established on the U.S. Coast Guard Station wharf in Rockland Harbor. A "Tide Note" on a separate page is attached to this report.

E. SMOOTH SHEET:

The projection was made in the ^{Norfolk} ~~Washington~~ Office by ^{hand} ~~ruling~~ ~~machine~~.

Shore line for the smooth sheet ^{was} ~~will be~~ made from Air-Photo Compilations T-8008, T-8009, T-8010, and T-8011.
1941-43 1941-44 1941-43

The transfer of shore line and topographic details has been verified in accordance with Art. 757 in the Hydrographic Manual.

F. CONTROL STATIONS:

The control stations used on this sheet are located on sheets H-7830 and H-7831. All information pertaining to control in this area can be found in the descriptive reports of these sheets.

G. SHORELINE AND TOPOGRAPHY:

See paragraph "E" of this report.

H. SOUNDINGS:

Standard sounding methods were used throughout. Lead and bar lines were checked with adequate frequency. A sheave test was made prior to the beginning of the season. Six Temperature and Salinity serials were obtained during the season.

Soundings taken on the Ship GILBERT were on fathoms on this sheet. When on fathom scale, the initial was set at one (1.0) fathom. Deviations from this setting were taken into account and indicated under the Index Correction Column of the Sounding Volume. Fathometer Corrections filed with H-7774

Settlement and Squat were considered negligible and no correction for same was applied.

Sounding lines were spaced in accordance to specifications.

A systematic coverage with respect to bottom samples was made with a snapper cup.

I. CONTROL OF HYDROGRAPHY:

Standard sextant fixes were used throughout. All positions were plotted without difficulty on the Boat Sheet.

J. ADEQUACY OF SURVEY:

This survey is complete and adequate and can be considered to supersede all prior surveys. Junctions with the adjoining surveys (H-7830 and H-7831) were satisfactory.

Depth curves can be adequately drawn at the junctions and to the inshore limits of this survey.

K. CROSSLINES:

Crosslines were run in accordance with Manual specifications.

L. COMPARISONS WITH PRIOR SURVEYS:

No comparison was made with any particular prior survey in that the hydrographic data of the latter have been incorporated into published charts.

M. COMPARISONS WITH CHARTS:

Comparison was made with Chart No. 310 and was generally good except between the Latitudes of $44^{\circ} 05.0'$ and $44^{\circ} 08.0'$. It was found that offshore data on the chart was too shoal in this area and in a few locations outside this area. This area was covered by the old survey H-1086 of 1869 and the difference in depths is possibly due to the use of an incorrect sheave factor for vertical casts. It is recommended that the values of the present survey be used throughout.

PS of Review

It should be noted that the comparisons made here were with Boat Sheet soundings, the reduction of which were based on predicted tide data.

N. DANGERS AND SHOALS:

No changes resulting from this survey.

O. COAST PILOT:

No changes or additions resulting from this survey.

P. AIDS TO NAVIGATION:

See copy of form 567 dated 15 August 1950 attached to this report.

Q. LANDMARKS FOR CHARTS:

No additions resulting from this survey.

R. TO Z.

Not applicable to this report.

This report prepared by direction of and in consultation with the Commanding Officer, Ship GILBERT.

Respectfully Submitted:

Merlyn E. Natto
Merlyn E. Natto
Ensign, USC&GS

TIDE NOTE TO ACCOMPANY

HYDROGRAPHIC SURVEY H-7832

(FIELD NO. GI-2150)

A portable automatic tide guage was maintained at the U. S. Coast Guard Base wharf. Latitude: $44^{\circ} 06.27'$,
Longitude: $69^{\circ} 06.08'$.

The tide reducers entered in the sounding volumes are based on Marigram data scaled and evaluated by personnel of the Ship GILBERT. Because of faulty guage performance, the hourly tide heights during the period of 16 May and 26 June were obtained from the Washington Office. The guage was in operation up to and including 8 August 1950 at which time it was dismantled.

A value of 3.8 ft. above 0 on the tide staff was determined by the office to be the plane of MLW. No time or height corrections need be applied to the observed tides.

Predicted tide curves were used throughout the season for reduction (nearest 0.5 ft.) of soundings on the Boat Sheet.

STATISTICS TO ACCOMPANY

HYDROGRAPHIC SHEET H-7832

(FIELD NO. GI-2150)

<u>Date</u> (1950)	<u>Day</u> (Blue)	<u>Vol No.</u>	<u>No. Pos.</u>	<u>hand lead</u> <u>No. Sdgs.</u>	<u>Stat. Mi.</u>
June 28	A	1	259	2	60.8
29	B	1	<u>117</u>	<u>8</u>	<u>25.0</u>
		Totals	<u>376</u>	<u>10</u>	<u>85.8</u>

Total Area - 5.6 Sq. Stat. Miles.

FATHOMETER CORRECTIONS

CORRECTIONS FOR SHIP GILBERT
FATHOMETER 53 (FATHOM SCALE)

Dates: 28 June to 8 August

A range: (fms)

B range: (fms)

10.0 to 14.2 = 0.0 ft.

35.0 to 37.0 = 1.0 ft.

14.3 to 25.7 = -1.0 ft.

37.1 to 47.0 = 0.0 ft.

25.8 to 37.0 = -2.0 ft.

47.1 to 57.5 = -1.0 ft.

37.1 to 47.0 = -3.0 ft.

57.6 to 68.0 = -2.0 ft.

47.1 to 55.0 = -4.0 ft.

68.1 to 78.5 = -3.0 ft.

78.6 to 88.8 = -4.0 ft.

LIST OF SIGNALS
To Accompany

HYDROGRAPHIC SURVEY H-7832 (Field No. Gi-2150)

TRIANGULATION STATIONS

A, MONROE ISLAND, STEEL BEACON, 1911-43 ✓

JAMESON POINT, SAMOSSET HOTEL, WATER TANK, 1934-43 ✓

OWLS HEAD L.H., 1858-1943 ✓

SHEEP ISLAND, STEEL BEACON, 1911-43 ✓

MARKED TOPOGRAPHIC STATIONS

ASH	ASH ISLAND BEACON, 1943 ✓	T-8008 1941-43
CAT	MONROE ISLAND LIGHT, 1943 ✓	T-8009 1941-44
GRA	THE GRAVES LIGHT, 1943 ✓	T-8010 1941-43
PRO	PORTERFIELD LEDGE BEACON, 1943 ✓	T-8010 1941-43
SHAG	SHAG ROCK BEACON, 1943 ✓	T-8009 1941-44
WOOD	WOOD, 1943 ✓	T-8008 1941-43

HYDROGRAPHIC STATIONS

AZO Vol. 10, page 25, Survey H-7831 ✓

APPROVAL SHEET

TO ACCOMPANY

HYDROGRAPHIC SURVEY H-7832

(FIELD NO. GI-2150)

The records and Boat Sheet for Survey H-7832 are herewith approved. This survey is considered adequate and complete and no other additional work is recommended.

It should be noted that this report was made prior to the plotting of the Smooth Sheet and is subject to minor revisions.



W. F. Malnate
Commander, USC&GS
Comdg. Ship GILBERT

FLOATING AIDS TO NAVIGATION

H-7832 (Field No. Gi-2150)

NAME	LAT.	M.	LONG.	M.	DEPTH	POS.	DATE
(1) NORTH GUIDE BUOY "F" ✓ <i>BUOY "A" WHITE CAN</i>	44-08 ✓	300 ✓	69-00 ✓	410 ✓	208 ✓	111 B ✓	6/29/50
(2) NORTH GUIDE LIGHTED BUOY "E" ✓ <i>LIGHTED BUOY No. "1" WHITE</i>	44-06 ✓	330 ✓	69-00 ✓	342 ✓	255 ✓	113 B ✓	"
(3) NORTH RANGE LIGHTED BUOY "D" ✓ <i>LIGHTED BUOY "D" WHITE</i>	44-05 ✓	212 ✓	69-00 ✓	343 ✓	³ / 206 ✓	114 B ✓	"
(4) SOUTH RANGE LIGHTED BUOY "C" ✓ <i>LIGHTED BUOY No. "3" WHITE</i>	44-04 ✓	192 ✓	69-00 ✓	402 ✓	485 ✓	115 B ✓	"
(5) SOUTH GUIDE LIGHTED BUOY "B" ✓ <i>LIGHTED BUOY No. "4" WHITE</i>	44-03 ✓	212 ✓	69-00 ✓	450 ✓	276 ✓	116 B	"

- (1) See Notice to Mariners No. 32, 1950
- (2) " " " " " 33, 1950
- (3) " " " " " 25, 1950
- (4) " " " " " 29, 1950
- (5) " " " " " 33, 1950

The buoys originally recorded by the field party at the time of the survey have been plotted on the S.S. in accordance with instructions from R.H.C., 3-9-51. The reviewer should note that these buoys have been changed since the survey was made.

R. K. L.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

2450

~~FIXED~~ FLOATING AIDS ~~OR LANDMARKS~~ FOR CHARTS

TO BE CHARTED
~~TO BE CHARTED~~

STRIKE OUT ONE

Rockland, Maine

15 August, 1950

I recommend that the following objects which have ~~(deleted)~~ been inspected from seaward to determine their value as landmarks be charted on *(deleted from)* the charts indicated.

The positions given have been checked after listing by L. F. Woodcock

W. F. Mainate

Chief of Party.

STATE	Maine	DESCRIPTION	Depth Feet	POSITION			METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOUR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
				LATITUDE		LONGITUDE						
				° ' "	D. M. METERS	° ' "							D. P. METERS
✓		North Guide Buoy "1A", White Can.	210	44-08	68	69-00	162	NA 1927	Fix	6-29-50	X	310
✓		North Guide Lighted Buoy "1A"(Wh.)	254	44-06	76	69-00	85	"	"	"	X	310
✓		North Range Lighted Buoy "B"(White)	309	44-05	82	69-00	81	"	"	"	X	310
✓		South Range Lighted Buoy "3"(White)	489	44-04	82	69-00	180	"	"	"	X	310
✓		South Guide Lighted Buoy "4"(White)	275	44-03	48	69-00	135	"	"	"	X	310
<p>(*) NOTE: Renamed "South Range Lighted Buoy C". See H.M. 29, July 22, 1950 (4237)</p> <p>Designation and color of others of the above buoys have been changed since</p> <p>date of location but Notice to Mariners noting this change have not been received.</p>												

ADDENDUM --

To Accompany

HYDROGRAPHIC SURVEY H-7832 (Field No. GI-2150)

This survey was smooth plotted in the Hydrographic Section of the Norfolk Processing Office.

Respectfully submitted,

High L. Proffitt
High L. Proffitt
Cartographer.

Norfolk, Va.
31 Jan. 1951

Approved & Forwarded:

Earl O. Heaton

Earl O. Heaton
Supervisor, Southeastern District.

GEOGRAPHIC NAMES

Survey No. H- 7832

Name on Survey										
	A	B	C	D	E	F	G	H	K	
<u>Maine</u>			(for title)						USGB	1
<u>West Penobscot Bay</u>			(. . .)							2
										3
<u>Monroe Island</u>									USGB	4
<u>Owls Head</u>									"	5
<u>Rockland</u>										6
<u>The Graves</u>									USGB	7
										8
										9
										10
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										27

Names underlined in red are approved
3-1-51. L. Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H.-7832..

Records accompanying survey:

Boat sheets ..1..; sounding vols. ..1..; wire drag vols.;
 bomb vols.; graphic recorder rolls .1 env;
 special reports, etc.1. Smooth Sheet.....

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

Number of positions on sheet	.....	376
Number of positions checked	.....	24
Number of positions revised	.....	9
Number of soundings revised (refers to depth only)	.....	7
Number of soundings erroneously spaced	.....	3
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	..2 hrs.
Junctions	Time	..0 hrs.
Verification of soundings from graphic record	Time	..4 hrs.

Verification by R. K. De Lawder..... Total time 27½ hrs. Date 3-14-51..

Reviewed by *[Signature]*..... Time ..6.... Date 3-26-51

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~

6 March 1951

Division of Charts: R. H. Carstens

Plane of reference approved in 1
volumes of sounding records for

HYDROGRAPHIC SHEET 7832

Locality West Penobscot Bay, Maine

Chief of Party: W. F. Malnate in 1950
Plane of reference is mean low water, reading
3.8 ft. on tide staff at Rockland
16.1 ft. below B. M. 1 (1945)

Height of mean high water above plane of reference is 9.7 feet.

Condition of records satisfactory except as noted below:

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

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7832

FIELD NO. GI-2150

Maine, West Penobscot Bay, Off Monroe Island
Surveyed in June, 1950 Scale 1:20,000
Project No. CS-265

Soundings:

808 Fathometer

Control:

Sextant fixes on shore signals

Chief of Party - W. F. Malnate
Surveyed by - W. F. Malnate
Protracted by - W. W. Feazel
Soundings plotted by - W. W. Feazel
Verified and inked by - R. K. DeLawder
Reviewed by - I. M. Zeskind, 23 March 1951
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with air-photographic surveys T-8008 (1941-43), T-8009 (1941-44) and T-8010 (1941-43).

The source of the control is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated.

The bottom is fairly irregular. Submarine ridges and deeps contribute to the bottom irregularity.

4. Junctions with Contemporary Surveys

The junctions with H-7830 (1950) on the north and H-7831 (1950) on the west will be considered in the reviews of those surveys.

5. Comparison with Prior Surveys

A.	H-952a (1866-67)	1:10,000
	H-1030 (1869)	1:20,000
	<u>H-1086 (1869)</u>	<u>1:20,000</u>

A comparison between the sparsely covered prior surveys and the present survey reveals differences of 2-15 ft. in depths of 175 to 540 ft. An example of these differences occurs in lat. $44^{\circ} 06.84'$, long. $69^{\circ} 00.15'$, where a prior depth of 222 ft. falls in present depths of 233 to 237 ft. These discrepancies are believed to be largely due to the inaccuracies of machine sounding on the prior surveys.

The present survey is adequately developed to reveal all hydrographic information necessary to supersede the prior surveys within the common area.

B.	H-2926 W.D. (1908-09)	1:20,000
	H-3195 W.D. (1910-11)	1:20,000
	<u>FE-7 - 1945 (Chart Section)</u>	

These wire-drag surveys cover the area of the present survey. No conflicts exist between the effective drag depths and depths on the present survey.

6. Comparison with Chart 310 (Latest print date 8/21/50)A. Hydrography

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

The present survey is adequate to supersede the charted hydrography within the common area.

B. Aids to Navigation

All aids to navigation are in substantial agreement with the charted positions and adequately mark the features intended. The charted designations of floating aids were changed subsequent to the present survey in accordance with H.O. Notice to Mariner Nos. 25, 29, 32, and 33 of 1950.

7. Condition of Survey

- a. The sounding records and Descriptive Report are complete and comprehensive.

b. The smooth plotting was accurately done.

8. Compliance with Project Instructions

The present survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

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

Examined and approved:


H. R. Edmonston

Chief, Nautical Chart Branch



L. S. Hubbard
Chief, Section of Hydrography



H. Arnold Karo
Acting Chief, Division of Charts



W. M. Scaife
Chief, Division of Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7832

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
2/5/52	310	Charles R. Wittman	Before After Verification and Review <i>Examined not applied</i>
6-24-52	1203	J. H. Eaton	Before After Verification and Review <i>Examined not applied</i>
9-30-52	209	P. H. Andrews	Before After Verification and Review
6-5-53	310	Geo. W. Bagley	Before After Verification and Review <i>Partially appl. thru chart 209</i>
4-30-62	<i>Reconst.</i> 310	Chas. R. Wittman	Before After Verification and Review <i>Thru chart 209</i>
5-8-63	1203 <i>Reconst.</i>	M. Rogers	Before After Verification and Review <i>then reconst. deg. of chart 310.</i>
			Before After Verification and Review
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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.