

7772

Diag. Cht. 1202-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. GI-1149 Office No. H-7772

LOCALITY

State MAINE

General locality APPROACHES TO BLUE HILL &
JERICHO BAYS

Locality SOUTH SIDE OF SWANS ISLAND & VICINITY

1949

CHIEF OF PARTY

W.F. Malnate

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DATE July 17, 1952

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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-7772

Field No. GI-1149

State MAINE ✓
General locality APPROACHES TO BLUE HILL & JERICHO BAYS ✓
Locality SOUTH ~~SIDE~~ OF SWANS ISLAND AND VICINITY. ✓
Scale 1:10,000 ✓ Date of survey 5 JUNE TO 13 OCT., 1949 ✓
Instructions dated 11 MARCH 1944, 22 APRIL 1948, AND 13 APRIL 1949
Vessel SHIP GILBERT AND LAUNCH #101
Chief of party W. F. MAINATE ✓
Surveyed by W. F. MAINATE AND H. D. REED, JR. ✓
Soundings taken by fathometer, graphic recorder, hand lead, wire
Fathograms scaled by PERSONNEL OF SHIP GILBERT
Fathograms checked by ditto
Protracted by A. KAUPA
Soundings penciled by A. KAUPA
Soundings in fathoms feet at MLW MLLW ✓
and are true depths
REMARKS: This survey was smooth plotted in the Hydrographic Section
of the Norfolk Processing Office.

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET H-7772 (FIELD NO. GI-1149)

MAINE COAST

USC&GSS GILBERT

W. F. MAINATE, COMDG.

PROJECT CS-265

SCALE 1:10,000

A. PROJECT:

This sheet is a part of Project CS-265. The survey was accomplished in accordance with the following Supplemental Instructions to the Commanding Officer, Ship GILBERT:

22 MEK - 1995-GI-4, 11 March 1944.

22 MEK - S-2-GI, 22 April 1948.

223 MEK - S-2-GI, 13 April 1949.

B. SURVEY LIMITS AND DATES:

This survey lies in the southern approaches to Blue Hill and Jericho Bays and covers the coastal waters of the south side of Swans Island and the area in that immediate vicinity. It also includes Burnt Coat Harbor, Swans Island. The northern limit of this survey is the south coast of Swans Island. To the westward it extends from West Point, Swans Island Southwesterly to approximate Latitude 44-07.5, Longitude 68-33.0, thence Southerly along the same meridian of longitude to Latitude 44-06.2, thence Southeast-erly to Latitude 44-05.75, Longitude 68-32.0 and thence in a gen-eral northeasterly direction to the west side of Marshall Island at Latitude 44-06.2, Longitude 68-31.0. On the east side of Mar-shall Island the southern limit of this survey begins at the south side of Popplestone Cove and extends in an easterly direction to Latitude 44-06.8, Longitude 68-28.2, thence Southeasterly to Lati-tude 44-05.75, Longitude 68-26.8, thence Easterly along the same parallel of latitude to Longitude 68-26.0, thence in a northeastely direction to Latitude 44-07.2, Longitude 68-23.9, thence along the same meridian of longitude to the south coast of Swans Island.

This survey was accomplished between 5 June and 13 October 1949.

Satisfactory junction was made at the West and Southwest with 1:30,000 scale sheet H-7152 surveyed by the ship GILBERT in 1946. *Review, par. 4*

Previous surveys within the limits of this sheet are H-1452, H-1453, and 2831 WD. Comparison with these surveys is covered under paragraph "M" of this report.

*Review,
par. 5.*

C. VESSELS AND EQUIPMENT:

Launch #101 operating from the ship GILBERT was used in surveying the inshore and shoal water areas on this sheet. The ship GILBERT was used when possible in surveying in deeper water.

808 type fathometers Nos. 53, 113-S, and 122-S were used on launch 101, No. 53 was used on the ship GILBERT. Inboard transceivers were used in both vessels. The turning radius of the ship GILBERT at full rudder is approximately 180 meters at sounding speed and that of launch 101 is approximately 25 meters.

D. TIDES AND CURRENTS:

For tide data see tide note attached to this report.

One current station was occupied. This was located between Hat Island and Ringtown Island, North of Marshall Island. Data for this current station was forwarded to the Washington Office on May 20, 1949.

E. SMOOTH SHEET:

Shoreline for the smooth sheet will be obtained from the following air photo compilations: T-8554, 8555, 8570, and 8571. (1944-46)

F. CONTROL STATIONS:

All triangulation used on this sheet except one station was from K. G. Crosby in 1934. The excepted station, POPPLE, 1945 was transferred from Air Photo Compilation T-8554. (1944-45)

Topographic signals were obtained from Air Photo Map Manuscripts, Project CS-272, furnished by the Washington Office. (For sheet Nos. see #E. above)

A number of additional ^{*}hydrographic signals were located in the area of this survey. The positions of these were determined by the following methods:

- (1) Sextant cuts.
- (2) Three point sextant fix with check angle.
- (3) Distance and direction from a known position. The positions of these stations were plotted directly on the boat sheet.

* Fixes recorded in sdg. volumes of present survey
Control was accurate and adequate.

G. SHORELINE AND TOPOGRAPHY:

Source is given in paragraph "E" above. Results of investigation by hydrographic party are given below.

The low water line was developed by hydrography whenever possible giving due consideration to the safety of the sounding vessel, personnel, and equipment.

The following features from the air photo compilations of the area were investigated during the course of survey.

FROM NOTES FOR HYDROGRAPHIC PARTIES - T-8554

<u>Latitude</u>	<u>Longitude</u>	<u>Feature investigated</u> (From Chart 308)	<u>Remarks</u>
44-06.85	68-32.34	Four rocks North of Saddleback Ledge.	Correct as shown on T-8554. Near pos. 32 ma ✓
44-07.05	68-31.22	Rock at Marshall Ledge.	Ledge symbol is correct, but appears to be displaced slightly to Eastward on T-8554. Near pos. 51 ha 0' @ MLW ✓
44-07. ⁰² ₆₅	68-29. ²² ₁₇	Two rocks at Yellow Ledge.	Correct as shown on T-8554. ✓
<u>OTHER FEATURES</u>			
(From T-8554)			
44-07.5	68-30.8	Sheal uncovers 7.6 at MLW.	Believe this is an error, launch party was in this area several times at low water and no indication of a sheal was found. Also 25 ft. was found alongside of indicated position while sounding in this area. <i>Not shown on H-7772</i> ✓
44-07. ²⁵ ₇₅	68-29.75	Old piling.	No longer in existence. ✓

FROM NOTES FOR HYDROGRAPHIC PARTIES - T-8570

- 44-09.14 68-28.1³ Two rocks awash ^{on chart} at Robinson Ledge. Northerly rock correct as shown on T-8570. Southerly rock non-existent, should be removed from chart. *Review, par. 5(3)*
- 44-08.57 68-30.37 Rock awash just West of Hat Island. No rocks were found above MLW in area between Hat Island and Hat Island Ledge. *RK. o.k. as charted*
reef symbol added to S. Sheet because of a 1/2 ft. sdg. on line (undeveloped)
~~Recommend this rock be removed from chart.~~
- 44-08.3⁷ 68-26.6⁵ Rock NW of Potato Field. This position corresponds to that of a sunken rock covered @ pos. 29ea by 4 1/2 ft. at MLW and found during the course of the survey. *✓*
 A small sunken ledge covered by 3 ft. at MLW was found 60 meters NNW of this rock. *Rev. par 6(3)*
 There are no rocks bare or awash at MLW in this area except near LW line of main ledge to North.
- Cable area across Burnt Coat Harbor. Local inquiry disclosed that there is no cable across Burnt Coat Harbor. Symbol should be removed from chart. *✓*
- 44-09.2⁰⁸ 68-26.8⁵ Three rocks in northern part of Burnt Coat Harbor. The southernmost of these rocks was verified during the course of the survey. *pos. 24ea (1)*
 *The two northerly rocks could not be found during an investigation made at *Review, par. 5a(3)*
 LW. There are two shoals (S. M. and Sh.) bare at MLW slightly to the SE of the charted position of these rocks and there may have been some displacement of these on the old survey.

44-09.1	68-26.87	(Continued)	Recommend that the two northerly rock symbols be removed from the chart.	Review, par. 5a. (3) ✓
44-07.87	68-27.57	Rock between Gooseberry Island and Gooseberry Ledge.	Rock baring $1\frac{1}{2}$ ft. at MLW, outer edge of ledge at SE end of Gooseberry Island falls in this position.	✓

FEATURES IN DISAGREEMENT WITH THE NAUTICAL CHART

All features mentioned under this heading which are within the area of this survey are correct as shown on T-8570.

The stone pier at the head of Toothacher Cove is now in ruins and no longer used. A large part of the stone has been hauled away. ✓

FROM NOTES FOR HYDROGRAPHIC PARTIES - T-8571

Note: No chart section with these features marked on it was available at time of this survey.

44-06.85	68-26.15	Four rocks awash in vicinity of Scrag Is.	It is presumed that these rocks are the ones shown nearest the ledge at the SE end of Scrag Is. as all others were verified. The two rocks to the eastward of the ledge are not included in the ledge symbol as shown on T-8571. The two rocks just south of the ledge should be removed and replaced with the symbols as shown on T-8571.	Rks. O.K. as shown on smooth sheet
----------	----------	---	--	------------------------------------

^{7 63} 44-06.80	68-25.82	³ One rocks awash NW of Baker Island.	A ledge area, most of which is submerged at MLW. The highest points above MLW were located by the hydro party (see boat sheet). Area is outlined on T-8571.	✓
-----------------------------	----------	--	---	---

44-07.37⁸ 68-26.52² One rock awash SE of Harbor Is. and North of Scrag Island.

It is thought this is the rock in question although it is off the SW side of Harbor Is. This area was visited by the hydro party at LW but no rock awash was found. Recommend that this rock be left on the chart as there is a small ledge extending out from the shoreline here. *Rock carried fwd. to pres. survey from H-1452 (1879)*

44-06.36 68-25.61 Sally Prude Ledge.

Least depth of 9 ft. charted. This area was developed by closely spaced sounding lines and 11 ft. was the least depth found. However, since there was no opportunity for further development during 1949 field season, it is recommended that the old sounding be retained. *9-ft. carried fwd. from H-1452*

FEATURES IN DISAGREEMENT WITH NAUTICAL CHART

All features mentioned under this heading which are within the area of this survey are correct as shown on T-8571. The additional feature noted below was not included under this heading.

44-07.34 68-25.17 Rock covered 0.3 ft. at MLW.

Position of this rock as found by hydro party is 75 meters North of charted position and 55 meter East of position shown on T-8571. Believe location found during survey is more nearly correct. Chart 308 (1948 edition) shows two rocks awash here. Only one was found during survey of this area.

* pos. 44°07.34
68°25.17
20 meters astern
of pos. 136e
CFK
✓
Review,
par. 6

H. SOUNDINGS:

Standard methods of sounding were used throughout. Fathometer corrections, index corrections and tide reducers have been entered in the sounding volumes. The fathometer correction combined as one correction the bar check corrections, temperature and salinity corrections and scale corrections. Their determination is given in a separate report covering all work for the 1949 season.

All fathometer soundings on this sheet taken from bothe Launch #101 and the ship GILBERT were on the foot scale. The initial setting used in launch #101 was 1.0 ft., for the ship GILBERT it was 5.0 ft.

Sounding lines were spaced in accordance with specifications. Shoal areas were developed with closely spaced sounding lines, supplemented by hand lead soundings in several instances.

I. CONTROL OF HYDROGRAPHY:

Standard sextant fixes were used except in a few instances at the inshore end of sounding lines where no fix was available. In such cases a distance and direction was estimated from a nearby signal or a distance to the high water line was estimated and the soundings were plotted on time and course from the last fix. These line ends were not more than two or three soundings in length.

J. ADEQUACY OF SURVEY:

This survey is complete and adequate to supersede prior surveys charting except as follows:

The following were not fully developed during the course of the regular survey due to time limitations and poor weather conditions and further development was not performed on them:

<u>Latitude</u>	<u>Longitude</u>	<u>Feature</u>	<u>Remarks</u>
44-07.10	68-31.24	7 ft. charted sounding North of Marshall Ledge.	----- 7 carried fwd. from H-1407 (1878)
44-08.03	68-24.25	Charted 6 ft. sounding near shoreline.	7 ft. found ³ 60 meters South east of this. 6 carried fwd. from H-1453 (1879)

44-08.00 68-31.60

Inshore lines at West
end of Halibut Rocks.

It was necessary
to reject the first
lines run here due
to weak fixes.

*Several sdgs.
carried fwd.
from H-1407*

There are several other small areas (see red lines on boat sheet) where additional development would be helpful in giving a more detailed delineation of the bottom. However the depth curves can be adequately drawn with the present development. ✓

No holidays or excessive differences exist and satisfactory junctions were made as noted under paragraph "B". The depth curves can be adequately drawn. ✓

K. CROSSLINES:

Approximately 5 per cent of crosslines were run. ✓

L. COMPARISON WITH PRIOR SURVEYS:

No direct comparison has been made with individual prior surveys, because a close comparison has been made with the chart of the area.

*See Review,
par. 5*

M. COMPARISON WITH CHART:

A close comparison was made with chart 308. In general there is satisfactory agreement between this survey and the above chart, except that the present survey gives better delineation because of closer spacing of lines and continuous profiles along lines. In some spots investigated, shoaler depths than those charted were found and these have been reported on Form 786, a copy of which is attached to this report.

*Review,
par. 6.*

A tabulation of the spots investigated, except those reported on Form 786, is given under paragraph "N" below.

N. DANGERS AND SHOALS:

A tabulation of dangers and shoals investigated during the course of this survey is given below. The positions tabulated refer to the "Survey Depth" column where applicable. ✓

<u>Latitude</u>	<u>Longitude</u>	<u>Survey Depth</u>	<u>Charted Depth</u>	<u>Remarks</u>
44-06.68	68-31.45	36 ✓	34 ✓	A small shoal area with 36 ^{34 carried fwd} to 39 ft. depths found. ^{from H-1407(1878)} (pos. 25-26c)
44-07.46	68-31.42	27 26	37	Shoal area in general depths ^{26 about 100m.} of 50 to 70 ft. Further de- ^{east of 37} velopment would be helpful ^{Prior & pres.} here but not immediately ^{depths agree} necessary.
44-08.36	68-30.21	*	6	This sounding falls near ^{* now} rock bare at MLW and is not ^{charted} on 1948 edition of chart 308.
44-08.78	68-30.08	2½	7	In rocky area of irregular bottom. Numerous depths of 4 to 7 ft. in area. (59-60x) ✓
44-08.85	68-29.98	7 6	9	Same remarks as above. ✓ 103-104x
44-07.75	68-30.15	23 21	25	Shoaling in shore toward Marshall Island. Depths of 22 to 25 ft. found adjacent to charted sounding. 26-27y ✓
44-07.13	68-29.52	9 8	11	Top of small shoal area. ✓ 109-110 ma
44-07.05	68-29.33	--	--	Disagreement in crosslines found in chart review, Survey shows rapid shoaling when approaching Yellow Ledge. ✓
44-07.18	68-28.98	20 19	23	Small shoal area with uneven bottom. 19 ft. obtained 75 meters South. ^{189-190 fa} ^{192-193 fa} ✓
44-06.35	68-27.34	65 ✓	75	Small shoal area. ✓
44-07.75	68-28.27	31 32	36	Ridge extending ²² in Northerly direction. ¹⁹ ft. obtained 100 meters North of ³¹ ft. ² sounding. ✓
44-07.85	68-28.57	24	25	Small shoal area. ✓
44-09.03	68-27.92	19 20	24	Top of small shoal. ✓

<u>Latitude</u>	<u>Longitude</u>	<u>Survey Depth</u>	<u>Charted Depth</u>	<u>Remarks</u>
44-09.05	68-28.1 ³ ₇	---		Rk. awash Rocky shoal area, uneven bottom. Investigated at low water and no rock found. Least depth of 10 ⁹ ft. found. <i>Review, par. 8 (8) (chart 6)</i>
44-09.32	68-27.65	24 ³	18	Area of rocky uneven bottom. *16 ft. sounding found 65 meters South of charted depth. Believe old sounding displaced. <i>*16 now charted</i>
44-08.70	68-27.53	10	12	Near rock bare ^{4¹} at MLW. (90-91a) <i>✓</i> _{↑ 93m}
44-08.82	68-26.82	---	6	Shoal area with least depth of 2 ¹ / ₂ ft. begins 20 meters to Southeast of charted sound- ing. Believe old sounding displaced. <i>prior & pres. depths in agreement</i>
44-08.51	68-26.87	---	5	Small shoal with least depth of 5 ¹ / ₂ ft. found 25 meters North of charted sound- ing. Believe old sounding displaced. <i>prior & pres. depths in agreement</i>
44-08.3 ³ ₈	68-26.9 ³ ₈	7¹/₂ ⁵⁻⁶	4	* Believe old sounding in er- ror. General depths of 8 to 9 ft. in this area. <i>* charted sdg. slightly out of position</i>
44-07.68	68-26.03	---	18 (uncharted)	18 ft. found 25 meters to Eastward. Old sounding probably displaced. <i>Pres. depths adequate for charting</i>
44-07.48	68-25.9 ¹ ₈	14 ¹²	14	Shoal area. Rocky uneven bottom. (49 fa) <i>✓</i>
44-07.49	68-26.0 ⁴ ₂	12	16	Same remarks as above. (33-34 f) <i>✓</i>
44-07.7 ⁹ ₂	68-26.9 ⁷ ₀	25 ²⁴	26	Edge of shoal area approaching ledge to Eastward. (33 b) <i>✓</i>
44-06.96	68-26.73	22 ²¹	*6 (uncharted)	General depths of 22 ²¹ to 32 ft. in this area, shoaling rapidly when approaching ledge 60 meters to Eastward. No Gunning Rocks in this vicinity. Believe old sounding in error. <i>The un-charted 6 falls in comparable depths on pres. survey</i>

<u>Latitude</u>	<u>Longitude</u>	<u>Survey Depth</u>	<u>Charted Depth</u>	<u>Remarks</u>
44-06.88	68-26.72	--	10	Old sounding falls on edge of channel between Green Island and ledge to Eastward. Old sounding believe correct. ✓
44-06.85	68-26.38	--	29	Falls in small shoal area extending to the Southeastward. 16 ft. found 45 meters East of old sounding. ✓
44-07.57	68-23.97	58	60	Shoal area, ³⁹ 40 ft. found 100 meters SSW of charted sounding. ✓

ADDITIONAL FEATURES

The following tabulation gives features found during the course of this survey and is in addition to those already reported on Form 786. (See also paragraph "G" of this report.)

44-08.43	68-30.80	¹⁸ 29	--	Narrow ridge extending NE'ly and SW'ly from this depth. (158-159B) ✓
44-07.85	68-30.00	24	--	Top of small shoal area. (29-30j) ✓
44-07. ³⁰ 82	68-29. ²⁹ 30	7	--	Small shoal, 9 ft. sounding (on H-1452) charted 70 meters South of this depth. Believe old sdg. displaced. → falls in same pos. as 7 on pres. survey ✓
44-08.59	68-28.66	¹ 2	--	Top of small shoal area. (89-90i) ✓
44-08. ⁵ 28	68-28. ⁰ 02	30	--	Small shoal spots in area of general depths of 40 to 50 ft. (11-12c) ✓
44-08. ³ 17	68-28. ² 08	⁵ 28	--	Same remarks as above. ✓
44-08.03	68-26.76	¹⁷ 18, 19	--	Least depths found in entrance channel to Burnt Coat Harbor. (8-92a) ✓
44-07. ^{8.00} 96	68-26. ⁸ 14	10 ¹ / ₂	--	Least depth found in entrance in channel to Burnt Coat Harbor between Harbor Island and Stanley Point. (75-76f) ✓
44-07.79	68-26. ¹ 13	⁸ 7	--	Top of small shoal. (40-41n) ✓

44-07. ² 1	68-26.10	4	2	North end of narrow ridge. <i>Review, par. 6 A. (1)</i> Least depth found agrees with 1942 edition of chart 308.
44-06. ⁶ 48	68-25.82	14	--	Least depth found on shoal areas NW of Sally Prude Ledge. <i>141-142 F</i>
44-06.59	68-26.01	⁰ 27	--	Same remarks as above. <i>137-138 ra</i>
44-06.05	68-25. ⁷ 56	⁴ 25	--	Small shoal area extending in a northerly direction. <i>14-15 N</i>
44-07.19	68-24. ⁹ 98	⁰ 27	--	Top of shoal area. 22 ft. sounding charted 90 meters NNW of this. Believe old sounding displaced. <i>249-250 H</i>
44-07.53	68-24.84	⁹ 6	10	Least depth obtained (by fathometer) when investigating shoal near Swans Island bell buoy "2". <i>165</i> Charted sdg. ¹⁰ 10 is ¹²⁵ 125 meters North of this. (Believe old sdg. is displaced as there is no indication of a shoal in the spot in which it is charted.) <i>Disregard</i> <i>There is a shoal indication of 29 ft. supported by 31 ft. (N.P.) on another line</i>

Note: 10 ft. sdg. verified & carried fwd. from H-1453 (Pillsbury Exam. of 1885). Sdg. plotted from original fixes See Review, par. 5.

CHART 309

*44-06. ⁴ 55	68-32. ⁹ 48	²⁹ 30	30	Least depth found in small shoal area. Charted sdg. falls about 75 meters South of this. Believed old sounding displaced. <i>10-11 ma</i>
* From review of chart 309.				
44-06.89	68-32.00	² 27	--	Least depths found in small shoal areas East of Saddleback Ledge. <i>88-89 D</i>
*44-06.88	68-31.87	22	22	Remarks same as above. <i>163 ra</i>
44-06.57	68-31. ⁵ 84	⁸ 29	---	Remarks same as above. <i>168-169 ra</i>
44-06.59	68-31. ⁶ 98	31	* 28	Charted sdg. is ⁷ 25 meters S. West of 31 ft. depth. Recommend old sdg. be retained pending additional development of this area. * Prior sdg. retained

O. COAST PILOT INFORMATION:

Coast pilot information covering the area of this survey is submitted as a separate report. ✓

P. AIDS TO NAVIGATION:

No changes in fixed aids to navigation were noted in this area. Chart sections for supplying information on floating aids to the U. S. Coast Guard are prepared separately. ✓

Q. LAND MARKS FOR CHARTS:

No new land marks for charts are recommended. ✓

R. MAGNETIC OBSERVATIONS:

Magnetic observations were made at HAT ISLAND 1907, 1934 (triangulation station). All data were forwarded to the Washington Office on 12 August 1949. ✓

S. TO Z.

Nothing to report under these headings. ✓

Harry D. Reed, Jr.
HARRY D. REED, JR.
Lieutenant, USC&GS.

TIDE NOTE TO ACCOMPANY

HYDROGRAPHIC SURVEY H-7772

(FIELD NO. GI-1149)

All tide reducers were from hourly heights from the Burnt Coat Harbor tide station except those for aa and ba days, launch 101 and E day, ship GILBERT, (22, 23 and 27 July 1949). The hourly heights for these days were supplied by the Washington Office. No correction for time or range was made for any part of the survey.

Portable automatic tide gage No. H-159 was installed by this party on 2 May 1949 at Burnt Coat Harbor, Swans Island, Latitude 44-08.7 and Longitude 68-26.97 and was operated the entire field season until discontinued on 16 October 1949. Scale 1:30 (0-17 ft.) was used.

The Washington Office determined the tidal datum plane. Hourly heights except as noted above were scaled from the marigrams by the personnel of the ship GILBERT.

STATISTICS TO ACCOMPANY

HYDROGRAPHIC SHEET H-7772

(FIELD NO. GI-1149)

<u>Date</u> (1949)	<u>Day</u> (Blue)	<u>Vol. No.</u>	<u>H.L. & Wire Sdgs.</u>	<u>No. Pos.</u>	<u>Stat. Mi.</u> <u>Sdgs.</u>
Launch #101 - Fathometers No. 53,113-S, 122-S.					
June	5	a	2	5	135 13.1
	6	b	2,3	-	142 21.5
	7	c	3	4	108 12.4
	8	d	3	-	16 - -
	9	e	3,4	-	181 18.8
	10	f	4	-	83 8.0
	11	g	4,5	-	105 9.4
	18	h	5	-	84 7.2
	23	j	5,6	-	163 24.2
	24	k	6,7	7	158 17.8
	25	l	7	-	91 8.7
	26	m	7	1	109 12.5
	28	n	8	-	167 16.6
	29	p	8,9	1	63 6.8
July	7	q	9	-	85 9.1
	8	r	9,10	1	145 16.6
	10	s	10	-	95 7.2
	11	t	10,11	-	144 14.0
	12	u	11	1	127 9.1
	13	v	11	-	44 3.1
	14	w	12	-	78 7.5
	15	x	12,13	-	192 19.7
	20	y	13	-	144 15.2
	21	z	13,14	-	205 23.0
	22	aa	14,15	-	207 17.0
	23	ba	15	4	138 10.2
	24	ca	15	-	47 2.5
	25	da	16	-	155 12.9
Aug.	4	ea	16	12	50 2.8
	5	fa	16,17	-	196 17.7
	6	ga	17,18	-	196 21.0
	7	ha	18,19	-	174 14.2
	8	ja	19	-	37 3.5
	10	ka	19,20	-	194 17.1
	11	la	20	-	161 13.2

(Cont)

Date (1949)	Day (Blue)	Vol. No.	H.L. & Wire Sdgs.	No. Pos.	Stat. Mi. Sdgs.
Aug. 23	ma	20,21	-	134	11.8
30	na	21	2	108	7.5
Sep. 16	pa	21	14	14	- -
28	qa	21	10	24	1.4
Oct. 10	ra	22	-	138	13.1
12	sa	22	<u>10</u>	<u>24</u>	<u>0.9</u>
Totals, Launch #101 -			72	4861	468.3
Area, Sq. Stat. Mi.					12.26

Ship GILBERT - Fathometer No. 53.

June 19	A	1,2	3	248	42.7
20	B	2	1	197	29.2
21	C	3	3	78	13.4
22	D	3	1	128	22.4
July 27	E	4,5	2	295	44.5
28	F	5	1	179	30.1
Sep. 7	G	5,6	1	54	7.6
8	H	6,7	2	312	43.9
20	J	7	-	57	6.2
21	K	7	30	30	- -
25	L	7	9	9	- -
Oct. 3	M	7	-	56	7.7
13	N	8	<u>-</u>	<u>104</u>	<u>14.6</u>
Totals, Ship GILBERT			53	1757	262.3
Totals for Sheet			125	6,618	730.6

Sq. Stat, Mi. Hydrography - Launch 12.26
do Ship 9.00
do Total 21.26

LIST OF SIGNALS
To accompany

HYDROGRAPHIC SURVEY H-7772

TRIANGULATION STATIONS

BURNT COAT HARBOR L.H., 1875-1934

HAT ISLAND, 1907-34

MARSHALL ISLAND, 1907-34

POPPLE, 1945

MARKED TOPOGRAPHIC STATIONS

ACRE, 1945 (T-8570)	IT, 1944 (T-8554)
BAND, 1945 "	JOHN, 1944 (T-8571)
BUSH, 1944 (T-8554)	OVEN, 1945 (T-8570)
COOL, 1945 "	SADDLE, 1944 (T-8554)
DRAG, 1945 (T-8571)	SALLY, 1944 (T-8571)
EARN, 1945 (T-8570)	SHOE, 1945 (T-8554)
GREEN, 1944 (T-8571) LEDGE	MASON, 1944 (T-8554)
HALIBUT ROCKS LIGHT, 1944 (T-8555)	TILE, 1945 (T-8570)
IRISH, 1944 (T-8570)	

TOPOGRAPHIC SIGNALS

<u>NAME</u>	<u>COMP. NO.</u>	<u>SIG. NO.</u>	<u>NAME</u>	<u>COMP. NO.</u>	<u>SIG. NO.</u>
ABE	T-8570	847	ORB	T-8554	711
ACE	T-8570	845	PAD	T-8570	853
BAT	T-8570	844	USE	"	843
BAG	"	849	Van	"	816
CAB	"	841	WAG	"	814
DAW	"	840	YAM	"	815
EAR	"	850	ZIG	"	2274
EAT	"	854	VET	"	803
EGG	"	795	PIE	T-8554	729
GAD	"	839	710	"	
GIG	T-8571	834	794	T-8570	
HAG	T-8570	838	721	T-8554	
HAT	"	862			
IDA	"	863			
JAW	T-8554	717			
KID	"	716			
LAX	T-8570	855			
LAY	T-8554	715			
LOG	"	731			
Mag	T-8570	826			
MAL	"	858			
MID	"	793			
NIX	"	791			
ODD	"	859			

HYDROGRAPHIC SIGNALS

ACT - Vol. 9, p. 10,11,12,14	DOT - Vol. 9, p. 11, 12
ADD 9 14	DUD 12, 16
ADO 9 7,8,9	" 17, 19
ALP 9 19,20,21	" 23, 35
AMP 9 23,33	DUN - (From sheet GI-1249)
" 22 71	EEL 9 18,19,20
ANT 9 19,21,28,29,30	ELF 9 28,29
APT 22 16	ELM 9 22,23,24
" 17 18,19	END 9 8
" 23 36	EST 12 15
ART 9 8,9,11,15	" 17 20,28
ASK 12 16	FAR 9 6
" 17 18,19	FAT 9 7,8,9
" 23 36	FEW 9 7
BAH 9 8,10	FEZ 9 13,25,26
BED 9 11,12	FIG 9 19
BIB 9 13,22,25,26	FIN 9 22,23,26
BIG 9 15,24,25,27	FIT 9 19,21,30
BOB 9 19,20	FLY 9 17
BON 9 24	FOG 9 11,12
BOX 9 19,21,29,30	FOR 9 33
BUM 9 24,25	FRY 9 28,31
" 21 32	" 12 14
BUS 9 11,12	GAL 9 6,8,9
BUT 9 32	GAM 9 11,12
" 17 18,19	GAS 9 13,27
" 12 16	GEM 9 22
CAM 9 6,7	GIN 9 18,24,29,30
CAR 9 11,12	GOT 9 17
CAT 9 13,22,26,27	GUY 9 28,31,32
COD 9 19,20	" 12 15
CON 9 24,25	HEM 9 11,12
COP 9 23,33	HER 9 22,23
" 22 63	HEX 9 22,26,27
CRY 9 24,25	HID 9 19
CUE 9 32	HIS 9 33
CUT 9 33	HOD 9 21
DAY 9 6,7,8	HOE 9 17
DIF 9 15	HOP 9 22,23,26
DIM 9 13,22,26,27	HUB 9 33
DIP 9 18,19,20	JAP 9 6,8
DOG 9 28	JAY 9 10,12,13,14
DON 9 19,28	JIB 9 22,23

HYDROGRAPHIC SIGNALS

JIM - Vol. 9, p. 20		PUG - Vol. 17, p. 28	
JOB	9 19,21	"	12 15
JUG	9 15,16	RAM	9 8,9
JUT	9 18	RAT	9 10,11,12,13
KEN	9 8,9,10	REV	9 28,29,30
KEY	9 12,13,14	RIM	9 24,25,27
KIM	9 22,23	RIP	9 23
LAD	9 7	ROY	9 18
LAM	9 8,9,10	RUB	9 25
LEG	9 22,23	"	21 32
LET	9 20	SAL	9 10,12,14
LIP	9 15	SAM	9 15,24,25
LIZ	9 18	SET	9 16,17,18
LOP	9 28,31,32	SHE	9 12,15
"	12 14	SIC	12 15
LUG (From sheet GI-1249)		"	17 19,20
MAN	9 10,12,14	"	23 35
MAR	9 13,15,26	TAN	9 5
"	21 12	TAP	9 10
MAX	9 22,23	TAX	9 10,12,14
MET	9 30,31,32	TOM	9 15,24
"	12 15	TUB	9 17,18,21,28,30
MOP	9 20	VAL	9 5
MUG	9 16,17	WAD	9 5
NAT	9 6,7,8,9	WAN	9 10,12,14
NAY	9 8,9,10	WAX	9 19,21,28,29,30
Ned	9 10,12	WED	12 16
NEW	9 22,23	"	17 1 8,19
NIG	9 18,29,30	"	23 35
NIP	9 16,17	YAK	9 5
NIT	9 31	YES	9 12,14
"	12 15	ZAG	9 5
"	17 20,28	ZOO	9 10,12,14
OAK	9 6,7		
OFF	9 10,12,13		
OIL	9 13		
OLD	9 6,7,9		
OUT	9 19,28		
OWL	9 16		
PAL	9 8,9,10		
PAR	9 10,13		
PEG	9 25,26		
"	21 12		
PEP	9 22,23		
PET	9 29,30		
PIN	9 17,18		
PIT	9 26		

H-7772

FLOATING AIDS TO NAVIGATION

Name L. L.	Lat.	Long.	Depth	Pos. No.	Date
Halibut Rocks Bell Buoy "1"	44°08.20'	68°31.62'	55	9pa	Sept. 16, 1949
Hat Island Ledge Buoy "2"	44°08.39'	68°30.93'	30½	8pa	Sept. 16, 1949
Marshall Island Buoy "1"	44°08.06'	68°30.68'	25½	7pa	Sept. 16, 1949
Sheriff Ledges Buoy "4"	44°07.78'	68°28.62'	70	6pa	Sept. 16, 1949
The Bull Buoy "3"	44°07.77'	68°27.34'	28	4pa	Sept. 16, 1949
Fairway Bell Buoy	44°07.47'	68°27.51'	—	5pa	Sept. 16, 1949
Harbor Island Ledges Buoy "3"	44°07.95'	68°26.13'	16	3pa	Sept. 16, 1949
Baker Island Ledges Buoy "1"	44°07.70'	68°25.88'	30	2pa	Sept. 16, 1949
Swans Island Gong Buoy "2"	44°07.50'	68°24.77'	45	1pa	Sept. 16, 1949

FATHOMETER CORRECTIONS

The tabulations below include all fathometer corrections (bar, scale and temperature and salinity) to be applied. The initial was set at scale reading 1.0' on Launch #101 and scale reading 5.0 on the Ship GILBERT for sounding in either feet or fathoms. For soundings read on the fathom scale on the Ship GILBERT an index correction of -4 fathoms or -24 feet has been entered in the record books to refer all corrections to a common datum.

CORRECTIONS FOR LAUNCH #101

DATE: (5 June to 14 June 1949)

Fathometer No. 53:	DEPTH	RANGE
	<u>From</u> <u>To</u>	<u>A, B, C & D</u>
	0.0' 75.5'	0.0'
	75.6' 103.5'	-0.5'
	103.6' end	-1.0'

Fathometer No. 113-S:	DEPTH	RANGE		
	<u>From</u> <u>To</u>	<u>A</u>	<u>B</u>	<u>C</u>
	0.0' 60.5'	0.0'	-1.0'	-
	60.6' 87.5'	-	-1.5'	-3.5'
	87.6' 114.5'	-	-2.0'	-4.0'
	114.6' end	-	-	-4.5'

DATE: (15 June to 6 July 1949)

Fathometer No. 53:	DEPTH	RANGE
	<u>From</u> <u>To</u>	<u>A, B, C & D</u>
	0.0' 83.0'	0.0'
	83.1' 117.5'	-0.5'
	117.6' end	-1.0'

CORRECTIONS FOR LAUNCH #101 (Continued)

DATE: (7 July to 19 August 1949)

Pathometer No. 53:	DEPTH		RANGE
	<u>From</u>	<u>To</u>	<u>A, B, C & D</u>
	0.0'	88.5'	0.0'
	88.6'	end	-0.5'

Pathometer No. 122-8:	DEPTH		RANGE		
	<u>From</u>	<u>To</u>	<u>A</u>	<u>B</u>	<u>C&D</u>
	0.0'	85.5'	0.0'	+1.0'	-1.5'
	85.6'	end	-	+0.5'	-2.0'

DATE: (20 August to End, 1949)

Pathometer No. 53	DEPTH		RANGE
	<u>From</u>	<u>To</u>	<u>A, B, C & D</u>
	0.0'	130.5'	0.0'
	130.6'	end	-0.5'

Pathometer No. 122-8:	DEPTH		RANGE		
	<u>From</u>	<u>To</u>	<u>A</u>	<u>B</u>	<u>C&D</u>
	0.0'	122.5'	0.0'	+1.0'	-1.5'
	122.6'	end	-	-	-2.0'

CORRECTIONS FOR SHIP GILBERT

DATE: (15 June to 6 July)

Fathometer No. 53:	DEPTH		RANGE	
	<u>From</u>	<u>To</u>	<u>A</u>	<u>B, C & D</u>
	0.0'	95.5'	0.0'	+0.5'
	95.6'	130.0'	-	0.0'
	130.1'	end	-	-0.5'

DATE: (7 July to 19 August)

Fathometer No. 53:	DEPTH		RANGE	
	<u>From</u>	<u>To</u>	<u>A</u>	<u>B, C & D</u>
	0.0'	103.5'	0.0'	+0.5'
	103.6'	end	-	0.0'

DATE: (20 August to End)

Fathometer No. 53:	DEPTH		RANGE	
	<u>From</u>	<u>To</u>	<u>A</u>	<u>B, C & D</u>
	0.0'	174.5'	0.0'	+0.5'
	174.6'	end	-	0.0'

Fathometer No. 53:	DEPTH		RANGE	
	<u>From</u>	<u>To</u>	<u>A</u>	
	0.0 fms	9.9 fms	0.0'	
	10.0 fms	32.0 fms	-0.5'	
	32.1 fms	end	-1.0'	

ADVANCE REPORT OF DANGERS TO BE CHARTED

Field
Survey (Sheet) No. GI-1149 Datum NA 1927 Locality Vicinity Marshall & Swans Is. State Maine Date 12 August 1949

I recommend that the following dangers to navigation be charted. The positions given have been checked after listing. Checked by H.D. Reed, Jr.

W.F. Malnate, Chief of Party.

TYPE OF DANGER	DEPTH (FEET) *		LATITUDE AND LONGITUDE		FROM CHARTED OBJECT OR NATURAL FEATURE †			CHART USED ‡		DATE OF LOCATION	REMARKS
	FATHO-METER	LEAD-LINE	°	SECONDS	TRUE BEARING	DISTANCE (METERS)	OBJECT OR FEATURE	No.	PRINT DATE		
Pinnacle	12		44 - 07	39.4	204°	783 (856 yds)	Halibut Ledge Lt.	-	-	8/11	Between Pos. 20 & 21 "la"-day.
shoal	10 5		44 - 08	36.5	046.5°	1522 (1664 yds)	do	-	-	8/10	Between Pos. 26 & 27 "ka"-day.
shoal	7 7 1/2		44 - 07	55.2	101°	1202 (1314 yds)	do	-	-	7/22	"aa"-day.
Pinnacle	10		44 - 06	53.5	128.5°	3430 (3751 yds)	Burnt Coat Hbr. L.H.	-	-	7/28	Between Pos. 20 & 21 "p"-day.
shoal	17		44 - 07	26.3	109.5°	3394 (3712 yds)	do	-	-	7/28	Between Pos 158 & 159 "p"-day.
shoal	4 1/2		44 - 07	08.8	146.5°	2008 (2196 yds)	do	-	-	8/5	Between Pos. 78 & 79 "fa"-day.
<p><i>This sdng. changed to 10ft. during verification of H-7772 9ft sdngs 20 meters NE and 40 meters SW of this pos. See Note vol #27 pp 37 See also verification report. CRK</i></p>											
* Predicted tides used for tide reducer.											
C.L. 639 (1949)											

* 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.

c/c Sup NED.

ADVANCE REPORT OF DANGERS TO BE CHARTED

Field
Survey (Sheet) No. GI-1149 Datum NA 1927 Locality Between Marshall & Swans Islands State Maine Date 25 June 1949
I recommend that the following dangers to navigation be charted. The positions given have been checked after listing; Checked by H. D. Reed, Jr.

W. F. Maloney Chief of Party

Type of Danger	*Depth (Feet)	Latitude and Longitude		† From Charted Object or Natural Feature			‡ Chart Used		Date of Location	Remarks	
		°	'	Seconds	True Bearing	Distance (Meters)	Object or Feature	No.			Print Date
shoal	18'	44	07	25.3	237½°	2148	Burnt Coat Harbor L.H.	-	-	6/18 & 6/19	See "NOTE"
		68	28	13.2							
do	10½'	44	07	20.2	246½°	3325	do	-	-	6/20	do
		68	29	09.2							
do	8½'	44	07	57.6	265½°	1840	do	-	-	6/7	do
		68	28	14.4							
shoal	4'	44	08	30.2	296°	1937	Burnt Coat Harbor L.H.	-	-	6/24	See "NOTE"
		68	28	10.2							
<p>NOTE: The above depths, shoaler than indicated depths in the immediate vicinity, have been determined during the current survey. Additional development will be done over these shoals but the depths here indicated are probably the least depth.</p>											
<p>C. L. 489 (1949)</p>											

* 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.

c/c Sup NED.

~~NON~~FLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
~~TO BE DELETED~~

STRIKE OUT ONE

Norfolk, Virginia

6 December, 1949

I recommend that the following ^{buoys} ~~objects~~ which have ~~(buoys)~~ been inspected ~~from seaward to determine their value as landmarks~~ field inspected and position checked charted on ~~(insert from)~~ the charts indicated.

The positions given have been checked after listing by H. D. Reed, Jr.

W. F. Malnate
W. F. Malnate, Chief of Party.

STATE Maine - Vicinity of Swans Island.			POSITION				METHOD OF LOCATION AND SURVEY	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
Light list CHARTING 1949	DESCRIPTION	SIGNAL NAME	LATITUDE		LONGITUDE							
			° ' "	D. M. METERS	° ' "	D. P. METERS						
P 621	Halibut Rocks Bell Buoy "1" Black, in 55 ft.		44-08	359	68-31	837	NA 1927	H-7772 Sextant Fix	9/16/49	X	X	308 1202
P 621	Hat Island Ledge Buoy "2" Red nun, in 30 ft.		44-08	718	68-30	1241	do	do	do	X	X	308 1202
P 622	Marshall Island Buoy "1" Black spar, in 25 ft.		44-08	119	68-30	908	do	do	do	X	X	308 1202
P 622	Sheriff Ledges Buoy "4" Red nun, in 70 ft.		44-07	1448	68-28	828	do	do	do	X	X	308 1202
P 621	The Bull Buoy "3" Black spar, in 28 ft.		44-07	1409	68-27	447	do	do	do	X	X	308 1202
P 621	Fairway Bell Buoy B&W Vertical stripes, in 95 ft.		44-07	869	68-27	675	do	do	do	X	X	308 1202
P 621	Harbor Island Ledges Buoy "3" Black spar, in 16 ft.		44-07	1746	68-26	176	do	do	do	X	X	308 1202
P 621	Baker Island Ledges Buoy "1" Black spar, in 30 ft.		44-07	1298	68-25	1181	do	do	do	X	X	308 1202
P 621	Swans Island Gong Buoy "2" Red, in 45 ft.		44-07	926	68-24	1034	do	do	do	X	X	308 1202
<i>See Processing Office list of Floating Aids.</i>												

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

APPROVAL SHEET

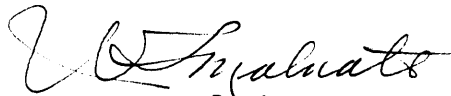
TO ACCOMPANY

HYDROGRAPHIC SURVEY H-7772 (FIELD NO. GI-1149)

The boat sheet and sounding records were inspected daily and at the conclusion of the field work. Both are approved.

The Descriptive Report has been examined and is approved.

The report showing Fathometer Corrections has been examined and is approved.



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

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-7772 (Field No. Gi-1149)

SOUNDINGS

Due to the congestion in Burnt Coat Harbor the soundings between positions 1-55h and 73-84h are being submitted on an overlay. (*sdgs. transferred to smooth sheet*)

Respectfully submitted,

High L. Proffitt
High L. Proffitt
Cartographer.

Norfolk, Va.
11 July 1952

Approved & Forwarded:

Earle A. Deily
Earle A. Deily
Supervisor, SE Dist.

COAST PILOT REPORT

REVISION NOTES FOR

SECTION A

St. Croix River to Cape Cod

Fourth (1941) Edition

The notes on page 122, line 5 through page 123, line 41 and page 124, line 18 through page 125, line 42 (Chart #308) have been reviewed and are found adequate and accurate and require revision only as follows:

Page 123, line 11:

After "water" add: "and a crib wharf on the northeast side of the harbor with a depth of 6 to 7 feet at low water;"

Page 123, line 17:

Strike out last sentence.

Page 124, line 30:

Change "1940" to "1949".

Page 124, line 31:

Strike out "Rockland, North Haven."

Submitted by,

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

R17C

Form 718
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrographic Survey~~

6 August 1952

Division of Charts: R. H. Carstens

Plane of reference approved in 30
volumes of sounding records for

HYDROGRAPHIC SHEET H-7772(1949)

Locality Swans and Marshall Islands, Maine

Chief of Party: W. F. Malnate in 1949
Plane of reference is mean low water, reading
3.4 ft. on tide staff at Burnt Coat Harbor
38.4 ft. below B. M. 4 (1911)

Height of mean high water above plane of reference is 9.5 feet.

Condition of records satisfactory except as noted below:

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

GEOGRAPHIC NAMES

Survey No. H-7772

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
<u>Maine</u>										B&N	1
<u>Blue Hill Bay</u>		(for title)								"	2
<u>Jericho Bay</u>		(" ")									3
<u>Swans Island</u> ✓										B&N	4
Following names used in Descriptive Report (for											5
placement of names not pencilled on sheet see Chart 008)											6
<u>John Island</u> ✓											7
<u>Sally Prude Ledge</u> ✓											8
<u>Green Island</u> ✓											9
<u>Scrag Island</u> ✓											10
<u>Baker Islands</u> ✓											11
<u>Harbor Island</u> ✓		Toothacher Cove ✓									12
<u>Stanley Point</u> ✓		Irish Pt. ✓									13
<u>Gooseberry Island</u> ✓											14
<u>Gooseberry I. Ledge</u>										B&N	15
<u>Potato Field</u> ✓		(small island)									16
<u>Burnt Coat Harbor</u> ✓		(tide gage location)									17
<u>West Point</u> ✓											18
<u>Hat Island</u> ✓		THRE BUSH I. ✓									19
<u>Hat I. ledge</u> ✓											20
<u>Halibut Rocks</u> ✓											21
<u>Marshall Island</u> ✓											22
<u>Ringtown Island</u> ✓											23
<u>Popplestone Cove</u> ✓											24
<u>Yellow Ledge</u> ✓											25
<u>Marshall Ledge</u> ✓											26
<u>Saddleback</u> ✓		(ledge)									27
<u>Hockamock Head</u> ✓											M 234

Names underlined in red are approved.
8-1-52
L. Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7772...

Records accompanying survey:

Boat sheets .1....; sounding vols. .30...; wire drag vols.;
 bomb vols.; graphic recorder rolls .27 Env.
 special reports, etc. 1 Smooth sheet; 1 Descriptive Report; 1 Overlay.
 Tracing:.....

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

Number of positions on sheet		6,618
Number of positions checked		5%
Number of positions revised		3%
Number of soundings revised (refers to depth only)		1%
Number of soundings erroneously spaced		15%
Number of signals erroneously plotted or transferred		2
Topographic details	Time	100
Junctions	Time	40
Verification of soundings from graphic record	Time	20%

Verification by *Chester F. Kupiec*..... Total time 1700... Date *Jan. 19, 1955*

Reviewed by *J.A. Dinsmore*..... Time 96... Date *11 Mar. 1955*

DIVISION OF CHARTS
REVIEW SECTION - NAUTICAL CHART BRANCH
REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7772

FIELD NO. GI-1149

Maine, Approaches to Blue Hill and Jericho Bays, South side
of Swans Island and Vicinity

Project No. CS-265

Surveyed - June - Oct. 1949

Scale 1:10,000

Soundings:

Control:

808 Fathometer
Hand lead

Sextant fixes on
shore signals

Chief of Party - W. F. Malnate
Surveyed by - W. F. Malnate
Protracted by - A. Kaupa
Soundings plotted by - A. Kaupa
Verified and inked by - C. F. Kupiec
Reviewed by - T. A. Dinsmore 11 March 1955
Inspected by - R. H. Carstens

1. Shoreline and Signals

The origin of the shoreline and signals is given in the Descriptive Report.

2. Sounding Line Crossings

Considering the irregularities in the bottom, depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated. Where not otherwise shown, the low-water line is represented by the outer limits of the rock ledge. Minor shoal indications not defined by the standard depth curves are emphasized on the smooth sheet by a brown curve.

The bottom is very irregular. Numerous reefs, pinnacles and shoals rising abruptly from considerable depths are scattered throughout the area. Many of the irregularities were probably caused by glacial scouring and deposits.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-7833 (1950) on the southeast, H-7773 (1950) on the south and with H-7152 (1946) on the southwest. The transfer of junctional soundings between H-7773 and the present survey is deferred pending the complete verification of H-7773. The junction with H-7774 (1949-50) on the east will be considered in the review of that survey. There are no contemporary surveys available at this time on the west and northwest. However, at these limits, present survey and charted depths are in harmony.

5. Comparison with Prior Surveys

a.	H-1366 (1876-02), 1:10,000	H-1452 (1879), 1:10,000
	<u>H-1407 (1878-05), 1:10,000</u>	<u>H-1453 (1879), 1:10,000</u>

These prior surveys taken together cover the area of the present survey. A comparison of the prior and present depths reveals that several of the deeper areas have filled-in as much as 10 ft. For example in lat. $44^{\circ}07.70'$, long. $68^{\circ}29.37'$, and lat. $44^{\circ}07.45'$, long. $68^{\circ}27.55'$, prior maximum depths of 98 and 100 ft. have since shoaled to depths of 88 and 90 ft., respectively. Except for the deposition of sediment in the deeps, no other appreciable changes in bottom are noted. However, some differences in bottom configuration are apparent. These are attributed to the extreme unevenness of the bottom and the more complete coverage of the present survey. The old sounding lines are widely spaced and fail to disclose many shoaler indications revealed by the closer development on the present survey. In areas where no bottom changes are indicated several shoal soundings not disproved by the present survey have been retained from the prior surveys. The most important of these is the 10-ft. pinnacle rising sharply from 50-ft. depths in lat. $44^{\circ}07.61'$, long. $68^{\circ}24.87'$. Originating with an examination by Lt. Pillsbury in 1885, the 10-ft least depth was plotted on H-1453 (1879). The depth and detached position of the sounding have been verified. Except for the sharp shoal indication of 29 ft., the area was not developed on the present survey.

The following discrepancies between the prior and present surveys are noted:

(1) The 16-ft. sounding charted in lat. $44^{\circ}07.95'$, long. $68^{\circ}24.26'$, from H-1453 should be disregarded. Falling in 33-ft. depths on the present survey, the prior sounding is considered to be out of position and should actually fall on the slope about 50 meters closer inshore where comparable depths were obtained on the present survey.

(2) The two rocks awash charted in lat. $44^{\circ}09.08'$, long. $68^{\circ}26.85'$, originate with zero soundings on H-1452. Minus soundings in the same locality on the present survey are adequate to show the exposed low-water shoal. The rock awash symbols should be deleted from the chart.

With the retention of several prior soundings and bottom characteristics, the present survey is adequate to supersede the prior surveys within the common area.

b. H-2831 (1906-11) W. D., 1:20,000

This wire-drag survey covers the passages in the western part of the surveyed area. No conflicts are noted between the effective drag depths and depths on the present survey. An 11-ft. sounding in lat. $44^{\circ}08.66'$, long. $68^{\circ}30.80'$, and a 30-ft sounding in lat. $44^{\circ}08.28'$, long. $68^{\circ}30.78'$, have been retained from the wire-drag survey.

6. Comparison with Chart 308 (Latest print date 8/23/54)

A. Hydrography

Charted hydrography originates principally with the previously discussed surveys supplemented by partial application of the present survey prior to verification and review. Numerous smooth-sheet depths have been revised during verification. The following discrepancies are specifically noted:

(1) The 2-ft. sounding charted in lat. $44^{\circ}07.21'$, long. $68^{\circ}26.10'$, was applied to the chart in November 1946 at the time advance information of air-photographic compilation T-8571 was being applied. Inasmuch as no other source could be found, it is assumed that the 2-ft. sounding originated with the above source. A 4-ft. sounding had originally been charted in the above position from H-1453 (1879). The present survey also shows a least depth of 4 ft. The 2-ft. depth should be disregarded and be replaced by a 4-ft. sounding.

(2) The 5-ft sounding charted in lat. $44^{\circ}08.60'$, long. $68^{\circ}30.75'$, should be disregarded. Originating with advance information of the present survey contained in Chart Letter 639 (1949) the 5-ft sounding was subsequently revised to 10 ft. during verification of the smooth sheet. A least depth of 9 ft. closeby should now be charted.

(3) The rock awash charted in lat. $44^{\circ}08.37'$, long. $68^{\circ}26.65'$, should be disregarded. Originating with the present survey before verification and review, the "rock awash" has been subsequently revised. The present survey

now shows a least depth of 3 ft. in the above locality which is in agreement with prior depths on H-1452 (1879).

(4) The rock awash charted in lat. $44^{\circ}07.33'$, long. $68^{\circ}25.21'$, originates with air-photographic survey T-8571 (1946). The above locality was thoroughly investigated on the present survey which revealed a rock awash 60 meters eastward from the above position. It is believed the rock awash on T-8571 which falls in present depths of 18 ft. is out of position and is actually the one located on the present survey. H-1453 (1879) and the present survey both agree in showing one rock in the same position. It is recommended that the rock charted from T-8571 be deleted from the chart.

(5) The notes "Rk. reported" and "Rks. reported" charted in lat. $44^{\circ}08.75'$, long. $68^{\circ}29.75'$, and lat. $44^{\circ}07.45'$, long. $68^{\circ}26.15'$, respectively, should be removed from the chart. Originating with information of questionable reliability in Chart Letter 19 (1945), the present survey information in the above localities is adequate to supersede the "reported" information.

(6) The 12-ft. sounding charted in lat. $44^{\circ}08.60'$, long. $68^{\circ}30.60'$, should be disregarded. Originating with the present survey prior to verification, the 12 has been subsequently revised to 17 ft. during verification of the smooth sheet.

(7) The 1-ft. sounding charted in lat. $44^{\circ}08.08'$, long. $68^{\circ}26.38'$, is erroneous. A 16-ft. sounding formerly charted here from H-1452 agrees with present survey depths. Apparently the 6 was omitted on the drawing or was lost from the negative or printing plate in reproduction.

(8) The rock awash charted in lat. $44^{\circ}09.05'$, long. $68^{\circ}28.10'$, is in error. A 6-ft. sounding originally charted (1914) from an engraved plate was mistakenly interpreted for a low-water feature when Chart 308 was reconstructed and republished in 1931. Since 1931 a rock awash has erroneously been shown in the above position. In verifying the 6-ft. sounding on H-1453, it was found to be misplotted. The sounding has been correctly replotted and carried forward to the present survey inasmuch as the 9 ft. obtained on the present survey is not considered to be the least depth in the locality. The "rock awash" should be disregarded and replaced on the chart by the 6-ft. sounding originally charted from H-1453.

Only the most important discrepancies on the chart have been noted. The present survey entirely supersedes the charted information. (Note: Chart 308 is presently being reconstructed.)

B. Aids to Navigation

The buoy charted in lat. $44^{\circ}08.01'$, long. $68^{\circ}30.67'$, is about 125 meters south of the survey position. The survey position more adequately marks the northern limits of the shoal.

Except as noted, the aids to navigation located on the present survey are in substantial agreement with the charted aids and adequately serve the purpose intended.

7. Condition of Survey

- a. The sounding records were complete except that certain bottom characteristics were consistently abbreviated incorrectly. For example, grey was designated as Gr instead of gy and black was described as Bl or bl instead of bk. Bottom samples might well be described in full where there is doubt as to the correct abbreviation. This would obviate misinterpretation and errors in the processing of the records and smooth sheet.

In rescanning the fathograms in various localities, the verifier detected and utilized many shoal soundings which occurred on sounding line turns. In such instances, adjacent hydrography did not reveal these shoal depths. The supplementary soundings were entered in the sounding volumes and plotted on the smooth sheet.

The Descriptive Report covers all matters of importance.

- b. The protracting of positions was generally accurate. However, during verification, hydrographic signal DIF was found to be inaccurately plotted and was replotted about 15 meters southward. This necessitated the replotting of about 45 sounding line positions in the area lying between Gooseberry Island, Hockamock Head and Harbor Island. The repositioned sounding lines brought the attendant hydrography into logical agreement and improved the delineation of the depth curves. Hydrographic signal PEG was also moved appreciably using stronger cuts. The small amount of hydrography partially dependent on PEG was satisfactorily repositioned. It is noted that many hydrographic signals on the present survey were located from other hydrographic signals. This practice should be avoided.

In the spacing of soundings, the smooth plotter did not usually take into account the decrease in speed when the launch was approaching shore. In such instances, the boat-sheet spacing of soundings was found to more correctly

follow the recorded information.

Many of the developed shoal areas were revised extensively during verification in the matter of selection and spacing of soundings. These revisions improved the delineation of the depth curves and more clearly portrayed the shoal development.

In verifying the transfer of contemporary topographic detail, most of the piers and wharves in Burnt Coat Harbor were found to be noticeably out of position. The necessary revisions were made during verification.

- c. Accurate checking of soundings from the fathograms was difficult on much of the present survey. In depths of 15-40 ft. traces above the bottom profile were recorded frequently. The upper trace was considered to be grass or vegetation but in many instances was so heavy as to be extremely difficult to differentiate from the lower solid-bottom profile. Where the upper trace was heavy, it was noted that the gain was held exceptionally high. In such areas, a reduction of gain would have undoubtedly facilitated accurate scanning of the fathograms. A more liberal use of the hand lead in areas of questionable returns would also have aided in interpreting the fathograms.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work

As a matter of record the following shoal indications were not developed:

<u>Depth</u>	<u>Latitude</u>	<u>Longitude</u>
31	44°07.73'	68°24.58'
33	44°06.53'	68°25.48'
37	44°06.83'	68°27.40'
39	44°07.02'	68°27.80'
48	44°07.30'	68°27.72'
31	44°07.64'	68°27.23'
25	44°08.85'	68°28.09'
16	44°07.78'	68°31.05'
24	44°07.77'	68°31.31'
25	44°07.86'	68°24.37'
24	44°06.10'	68°25.55'
10	44°06.88'	68°24.85'

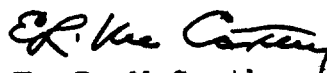
Except in the deeper areas and those areas previously covered by wire-drag surveys, wire-drag coverage is contemplated in the present survey area during the 1955 survey season. The undeveloped shoal indications listed above fall in areas indicated

to be covered by the wire-drag operations to effective depths of 20 and 35 ft. In specific localities, certain shoals will be dragged to within 2 ft. of the least depth shown on the survey.

Examined and Approved:



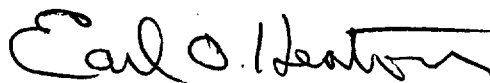
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