

7834

Dist. Cht. No. 1202-2

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC
Field No. G1-1450 Office No. H-7834

LOCALITY

State MAINE
General locality LLUE HILL & JERICHO BAYS
Locality CASCO PASSAGE & YORK NARROWS

1945

CHIEF OF PARTY

W. F. Malnate

LIBRARY & ARCHIVES

DATE Feb. 21, 1951

7834

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-7834

Field No. Gi-1450

State MAINE

General locality BLUE HILL & ~~JERICHO BAY~~

Locality CASCO PASSAGE AND ~~YORK NARROWS~~

Scale 1:10,000 Date of survey 29 Aug. to 9 Oct. 1950

Instructions dated 24 Feb. 1950 & 22 Apr. 1948

Vessel Launch 101 (Attached to Ship Gilbert)

Chief of party W.F. Malnate

Surveyed by L.F. Woodcock

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

Fathograms scaled by Personnel of Ship Gilbert

Fathograms checked by " " " "

Protracted by Stanley M. Tarkenton

Soundings penciled by " " "

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

REMARKS:

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET H-7834 (FIELD NO. GI-1450)

MAINE COAST

USC&GSS GILBERT

W. F. MALNATE, COMDG.

PROJECT CS-265

SCALE 1:10,000

A. PROJECT:

This sheet is part of Project CS-265. The survey was accomplished in accordance with supplemental instructions to the Commanding Officer, Ship GILBERT, 22/MEK, S-2-GI, dated 24 February 1950 and 22/MEK, S-2-GI, dated 22 April 1948.

B. SURVEY LIMITS AND DATES:

This survey extends throughout the limits of the insert shown on chart No. 227, eastward of longitude $68^{\circ} 30'$. The hydrography was accomplished between 29 August and 9 October 1950.

Previous surveys within the limits of this sheet are H-1366, H-1401 and H-2967 WD.* Comparison with these surveys is covered under paragraph "M" of this report. *Also:
(1876-1906) (1878) (1906) H-2965 WD (1908-11)
H-2831 WD (1906-11)

C. VESSEL AND EQUIPMENT:

The survey was accomplished by Launch 101 operating from the Ship GILBERT. The turning radius of Launch 101 at sounding speed is about 20 meters.

808 type fathometer No. 122-S was used for the entire survey, all soundings being on the "foot" range.

D. TIDES AND CURRENTS:

For tide data see tide note attached to this report.

One current station was occupied. This was located in mid-channel between Black Island and Orono Island. Data for this current station was forwarded to the Director on 1 September 1950.

E. SMOOTH SHEET:

Shoreline for the smooth sheet will be obtained from air-photo compilations T-8569 and T-8570.
(1944) (1944)

F. CONTROL STATIONS:

Three triangulation stations were used on this sheet. BOWES and SHIP AND BARGES BN. are from K. G. Crosby in 1934. EGG ROCK BEACON is from N.H.H. in 1907.

Topographic signals were obtained from T-8569 and T-8570. In a number of cases the photo points on T-8569⁽¹⁹⁴⁴⁾ and T-8570⁽¹⁹⁴⁴⁾ were not ideally located for hydrographic purposes. In such instances new signal sites were located by the substitute station method, i.e. by measuring a direction and a short distance from the located point. All these measurements are recorded in Volume 1 of the sounding volumes.

Five new topographic signals were located in the field by radial plot. These signals, (Sam, Yak, Try, Zoo and Wee) have been inked on both the original map manuscript and the film positive of T-8570. One topographic signal, Mag, was located by identifying a nearby pass-point and measuring a direction and distance to "Mag". The pass-point has been named "sub. sta. Mag" on both the original map manuscript and film-positive of T-8569⁽¹⁹⁴⁴⁾, and the distance and direction from "sub. sta. Mag" to "Mag" are recorded in Volume 1 of the sounding volumes.

G. SHORELINE AND TOPOGRAPHY:

Source is given in paragraph "E" above.

The low water line was developed by hydrography whenever possible giving due consideration to the safety of the sounding vessel, personnel and equipment. In many instances the reef line as developed by hydrography does not agree with that shown on the air-photo compilation. This is particularly noticeable around Long Ledge and the reef area south and east of Johns Island. The air-photo compilation shows these reefs to be considerably more extensive than shown by this hydrographic survey. These areas were visually inspected at times of zero or minus tide and found to be in agreement with the hydrography. The difference may be due to a faulty interpretation on the photographs of shoal and discolored water for bare ledge. There are several small ledges shown on T-8569 and T-8570 bearing the notation "Ledge awash at MLW", over which hydrographic development shows depths of $\frac{1}{2}$ to 4 feet. This may be attributed to faulty interpretation of photographs again plus poor estimation of position tide or depth by the field inspector. It is recommended that the hydrographic survey govern in cases of conflict.

The following *charted features were recommended for investigation in "Notes for Hydrographic Parties", T-8569:
* Charted in 1944 (1944)

1. Two rocks awash just south of Johns Island. (lat. $44^{\circ} 11.9'$, long. $68^{\circ} 27.3'$)

This area is shown as ledge uncovered at MLW on the latest edition of Chart 227. The ledge area is too extensive as mentioned above. This area has been adequately developed and inspected at MLW during the course of this survey and should be charted accordingly. Two rocks plotted from F.I. photo

2. Rock awash - south of Opechee Island and lying between Black and Johns Island.

Same comment as above. Reef and *(I) on present survey

3. Rock awash - at latitude $44^{\circ} 11.8'$ and longitude $68^{\circ} 28.13'$.

Two individual rocks awash were located in this vicinity. The entire ledge was developed by closely spaced sounding lines and was inspected at MLW.

4. Detached bare rock area - offshore from the western shore of Opechee Island and north of Johns Island.

Limits of bare rock area from T-8569 and from hydrography are in good agreement. (1944)

Investigation of the MHWL was recommended in "Notes for Hydrographic Parties", T-8570, at the following places:
(1943)

1. Two detached bare rock areas - just north^{west} east of Orono Island. *lat. 44° 11.3', long. 68° 27.85'*

Existence verified and appropriate notes were entered in sounding volumes.

2. One offshore islet - just southeast of Orono Island. *lat. 44° 11.15', long. 68° 27.55'*

There is no detached islet at this location. Ledge covers at MHW.

3. Two detached bare rock areas - just southwest of Phinney Island. *lat. 44° 11.25', long. 68° 27.20'*

Existence verified and appropriate notes were entered in the sounding volumes.

4. Two detached bare rock areas - just southwest of Garden Islands. *lat. 44° 10.91', long. 68° 27.72' - 27.86'*

Same comment as above in (3).

Investigation of the following features during hydrography was recommended in "Notes for Hydrographic Parties", T-8570:
(1944)

1. Nine charted rocks awash (high spots of ledge) located on Long Ledge. Only rock ledge has been shown. *lat. 44° 11.4', long. 68° 28.6'*

The highest part of Long Ledge is awash at high tide and consequently could not be sounded with the launch. However, the MDW line is adequately developed on this ledge, and all inside the MDW line should be charted as rock ledge, not as separate detached rocks.

2. Three charted rocks awash (high spots of ledge) - just north of Orono Island. Only rock ledge has been shown. *lat. 44° 11.5', long. 68° 27.5'*

This area is correctly shown as rock ledge, but is considerably too extensive on T-8570. The low water line is adequately developed and the area was inspected at MLW. The submerged portion of the ledge extending NE'ly from Orono Point Beacon was developed by closely spaced lines.
(1944)

3. Charted rock awash - just southeast of Phinney Island. Only rock ledge has been shown. *lat. 44° 11.22', long. 68° 27.05'*

The uncovered portion of this rock ledge is not over 3 or 4 meters in diameter and should be charted as a rock awash instead of rock ledge. It was individually located during the

course of this survey (position 50, "l" day).

4. Four charted rocks awash - north of the Triangles.
~~Only rock ledge has been shown. lat. $44^{\circ} 11.4' - 11.5'$, long $68^{\circ} 26.6' - 26.73'$~~

This area is correctly shown as rock ledge, but again is too extensive on T-8570. It is recommended that it be charted as rock ledge with MLW line as developed by this survey. *present survey agrees with prior charting*

5. Charted ^(chart 300) bare rock - Latitude $44^{\circ} 10.85'$, longitude $68^{\circ} 26.9187'$. ~~Rock ledge has been shown.~~

The portion of this ledge uncovered at MLW is not over 3 or 4 meters in diameter, and should be charted as a rock awash. It was individually located during this survey (position 180, "f" day).

6. Charted detached bare rock - latitude $44^{\circ} 11.22'$, longitude $68^{\circ} 27.12'$. ~~Not shown.~~

This area is correctly shown on T-8570 as part of a rock ledge bare at MLW, and ~~connected to the shoreline.~~

7. Six charted detached bare rocks - just south of the southern shore of Phinney Island. Only two have been shown.

This area is all part of a rock ledge uncovered at MLW and attached to the shoreline.

8. Charted detached bare rock - latitude $44^{\circ} 11.35'$, longitude $68^{\circ} 27.10'$. ~~Not shown.~~

There is no detached bare rock here. This position plots as part of Phinney Island itself.

9. Charted rocks awash - just north of Long Ledge. Not shown.

Five detached rocks were located just north of Long Ledge. The two smaller ledges shown on T-8569 and T-8570 just north of Long Ledge do not uncover at MLW. ⁽¹⁹⁴⁴⁾ This was ⁽¹⁹⁴⁴⁾ verified by visual inspection at the time of a minus tide. *Adequately delineated by hydro.*

10. Charted rocks awash - just southwest of Long Ledge. Not shown.

Two rocks were located in this vicinity, one just SW of Long Ledge and one just west of Long Ledge. Long Ledge, as shown on T-8570, is too extensive. In fact, these two rocks are shown as a ⁽¹⁹⁴⁴⁾ part of Long Ledge. The fact that they are detached was verified by visual inspection at MLW.

11. Charted position of Long Ledge is in disagreement with the position of Long Ledge shown on the Map Drawing.

This disagreement has been corrected in later editions of Chart 227. However, since Long Ledge is too extensive on T-8570⁽¹⁹⁴⁴⁾ and on current editions of Chart 227, it is recommended that its shape and position be determined from this hydrographic survey. The control for this survey was entirely adequate.

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 1950 season.

All fathometer soundings on this sheet were taken with Launch 101 using fathometer 122-S on the foot scale. The initial setting was 1.0 foot.

Sounding lines were spaced in accordance with specifications, and additional development was added over critical areas, supplemented with hand lead soundings in several cases.

I. CONTROL OF HYDROGRAPHY:

Hydrography was controlled by standard sextant fixes throughout. No "jumps" occurred on any of the sounding lines, and the control was considered to be entirely satisfactory. As a general rule, 1½ minute fixes were used to control the sounding vessel.

J. ADEQUACY OF SURVEY:

This survey is complete and adequate to supersede prior surveys for charting purposes. No "holidays" exist in the work.

K. CROSSLINES:

Crosslines were run to the extent of 7 or 8 percent of the principal system of lines, exclusive of development. Crossings are considered satisfactory for the type of bottom encountered.

L. COMPARISON WITH PRIOR SURVEYS:

No direct comparison has been made with prior surveys, since all prior surveys are old enough to be incorporated in the chart.

M. COMPARISON WITH CHART:

Comparison with chart 227 (corrected to May 8, 1950) reveals a great many differences. This survey gives better delineation because of closer spacing of lines and continuous profile along lines. Critical differences have been reported on form 786, a copy of which is attached to this report. *Chart Letters 688 and 716 (1950)*

The instructions called for special investigation of rocks and ledges at the following locations:

<u>Latitude</u>	<u>Longitude</u>	<u>Remarks</u>
44° 11.67'	68° 28.52'	This charted rock awash does not exist. † plotted The area was ^{examined} determined at MLW. Close Review, per 1a(2) development shows a depth of 8' 7"
44 11.78	68 28.30	The chart shows a rock ledge here, bare at MLW. There is a rock ledge here, but it is not bare at MLW. The area was examined at MLW. Close development shows 3½ ft. as the least depth. 3' plotted
44 11.57	68 28.11	The chart shows two bare rock ledges and four rocks awash in this area. Actually there is a ledge here which is mostly submerged at MLW. There are two high points of the ledge projecting above MLW which were individually located. Close development gave several 0 and ½ ft. soundings over the rest of the ledge.

The following are comments from further comparison of this survey with chart 227:

44 11.09	68 29.73	The chart shows a depth of 11 ft. A depth of 10½ ft. was obtained about 30 yards west. The shoal is not detached as shown on the chart.
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<u>Latitude</u>	<u>Longitude</u>	<u>Remarks</u>
44° 12.00'	68° 29.77'	The chart shows a depth of 2 ft. Depths of 3, 5½ and 4½ ft. were found about 80 yards SW, W and NW respectively from this position. * plotted from T-8569-Review per. 6a(1)
44 11.69	68 29.60	The Chart shows 10 ft. here. A depth of 8 ft. was obtained on this shoal. ✓
44 11.54	68 30.12	The chart shows 23 ft. here which was verified by development. ✓
44 11.39	68 30.00	The chart shows 18 ft. Close development in this area showed only depths of 57 to 60 ft. This 18 and the 27 just SW of it were misplotted on 4-1336 from which they were charted. it must be displaced on the chart. ✓
44 11.39	68 29.69	The chart shows 26 ft. here, which is probably displaced. 27 ft. was found 100 meters SW. 26 ft retained from 2967 w.d. ✓
44 11.66	68 29.08	The chart shows an 18 ft. shoal. 13 ft was discovered on this shoal, with a 12 ft. sounding 50 metres NW. ✓
44 11.76	68 29.28	The chart shows an 18 ft. shoal. 14 ft. was discovered on this shoal. ✓
44 11.58	68 28.93	The chart shows ^{ed} a 10 ft. sdg. here. 9 ft. was found about 30 meters SW. The rock ledge just south of this position does not uncover at MLW. A least depth of 1½ ft. was obtained on this ledge. ✓
44 11.72	68 28.60	The chart shows 18 ft. here. Close development shows a least depth of 13 ft. ✓
44 11. 77	68 28.49	The chart shows 4 ft. here. A depth of 2½ ft. was found about 30 meters east. ✓
44 11.70	68 27.86	The chart shows 18 ft. here. Close development gives a depth of 17 ft. about 80 meters NE. (Review per. 6a(2) 18) ✓
44 11.81	68 27.78 ⁵	The chart shows a rock awash here, with a bare rock ledge just east. The rock awash was verified and located. Rock Ledge does not bare at MLW. Review per 1a(1)

<u>Latitude</u>	<u>Longitude</u>	<u>Remarks</u>
44° 12.22'	68° 27.02'	The chart shows 24 ft. here. A least depth of 19 ²³ ft. was found on this shoal.
44 10.88	68 26.49	The chart shows 7 ft. here. A least depth of 3 1 ft. was found on this shoal. ✓
44 10.70	68 26.80	The chart shows 4 ft. here. This survey shows 3 ^{3 1/2} ft. and the area was not developed. It is recommended that additional splits be run when work is resumed in this locality. Pending further investigation, it is recommended that the charted 4 ft. sounding be retained. <i>from development on H-1401</i>
44 11.07	68 27.22	The chart shows a rock awash here. This shoal was investigated and a least depth of 1 ¹ / ₂ ft. found. It does not uncover at MLW. ✓
44 11.08	68 27.35	The chart shows 7 ft. here. A depth of 6 ¹ / ₂ ft. was found about 20 meters south of this position. ✓
44 11.05	68 28.16	The chart shows a rock ledge here uncovered at MLW 30 to 40 meters in diameter. The uncovered portion of this ledge is not over 3 or 4 meters in diameter. It has been located and should be charted as a rock awash. ✓
44 11.30	68 28.23	The chart shows a rock ledge bare at MLW. The ledge does not bare at MLW and a least depth of 1 ¹ / ₂ ft. was found on it. * plotted from ¹ / ₂ ft sds on H-2967 W.D.
44 11.14	68 28.46	The chart shows 10 ft. here. 6 ft. was found about 50 meters west of this position. } See Review per. 6a(4)
44 11.16	68 28.57	The chart shows 6 ft. here. 6 ft. was found about 35 meters east of this position. }
44 11.17	68 28.79	The chart shows 10 ft. here. A least depth of 9 ft. was found on this shoal. Review par 8d(1)

N. DANGERS AND SHOALS:

Most of the dangers and shoals have been discussed in paragraphs "G" and "M" above. Important new dangers and shoals have been* reported on form 786. The following are in addition to those mentioned above: *C.L. 608, 916 (1950).

<u>Latitude</u>	<u>Longitude</u>	<u>Remarks</u>
44° 11.67'	68° 29.11'	¹³ 12 ft. sounding, position 119-120 "q" day. Top of small shoal in channel. ✓
44 11.73	68 28.60	¹⁴ 13 ft. sounding, pos. 92-93 "p" day. Top of small shoal in channel. ✓
44 11.20	68 28.12	¹³ 12 ft. sounding, pos. 99 "l" day. Top of small shoal. (<i>handlead</i>) ✓
44 11.12	68 27.41	9 ft. sounding, pos. 23-24 "l" day. Top of small shoal. ✓
44 11.54	68 29.69	A sounding of 13 ft. was reported here on form 786, 9/11/50. Later investigation on "q" day, 10/8/50 disproves this sounding. It should not be charted. (<i>Not plotted</i>) ✓

O. COAST PILOT INFORMATION:

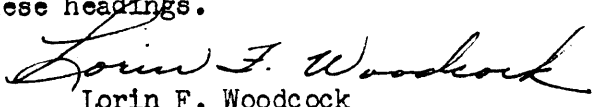
No changes to report.

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 seperately. All buoys in the area were located by sextant fix and are tabulated on form 567 attached. The buoyage system through Casco Passage was changed by the U.S. Coast Guard during the course of this survey, as published in Notice to Mariners #42, paragraph (6099) and No. 43, paragraph (6264). All data regarding buoys in this survey refers to the present system now in use.

Q. to Z.

Nothing to report under these headings.


Lorin F. Woodcock
Lieutenant, USC&GS

TIDE NOTE TO ACCOMPANY

HYDROGRAPHIC SURVEY H-7834

(FIELD NO. GI-1450)

All tide reducers were from hourly heights from the tide station in Mackerel Cove except for September 13 and 14, "h" and "j" days, ^{which} were supplied by the Washington Office. No correction for time or range was made for any part of this survey.

Portable automatic tide gage No. H-299 was installed by this party on 25 August 1950 in Mackerel Cove, Swans Island, Maine, latitude $44^{\circ} 10.16'$, longitude $68^{\circ} 26.06'$ and was operated for the remainder of the field season. Scale 1:30 (0-17') was used.

The Washington Office determined the tidal datum plane. Hourly heights except as noted above were scaled from the mari-grams by the personnel of the Ship GILBERT.

STATISTICS TO ACCOMPANY

HYDROGRAPHIC SHEET H-7834

(FIELD NO. GI-1450)

67

<u>Date</u> (1950)	<u>Day</u> (Blue)	<u>Vol. No.</u>	<u>No. Pos.</u>	<u>No. Sdgs.</u>	<u>Stat. Mi.</u>
Aug. 29	a	1	175		23.3
30	b	1,2	105	2	12.8
31	c	2	140	11	15.6
Sep. 7	d	2,3	235	19	30.4
8	e	3,4	216	20	27.5
9	f	4	190	12	22.3
10	g	5	221	6	24.9
13	h	6	206	8	22.4
14	j	6,7	155	6	15.6
19	k	7	22		2.6
20	l	7,8	215	6	26.5
21	m	8	199		20.6
22	n	8,9	135		16.3
Oct. 2	p	9	101		9.7
8	q	9,10	208	13	16.4
9	r	10	<u>142</u>	<u>22</u>	<u>10.3</u>
		Totals	2665	125	297.2

Area - 4.13 sq. stat. miles.

FATHOMETER CORRECTIONS

The tabulation below includes all fathometer corrections (bar, scale and temperature and salinity) to be applied. All sounding was done with launch 101, fathometer 122-S, on the foot scale with initial set at 1.0.

A range	0 to 55 ft.	= 0.0 Correction
B range	35 to 52.7	= +0.8 ft. Corr.
	52.8 to 62.1	= +0.6 ft. Corr.
	62.2 to 90.0	= +0.5 ft. Corr.
C range	70 to 128	= -1.5 ft. Corr.
	128.5 to 160	= -2.0 ft. Corr.
D. range	105 to 128	= -4.5 ft. Corr.
	128.5 to 160	= -5.0 ft. Corr.

1100
12 28
700

FLOATING AIDS TO NAVIGATION

<u>NAME</u>	<u>I.A.T.</u>	<u>METERS</u>	<u>LONG.</u>	<u>METERS</u>	<u>DEPTH</u>	<u>POS. NO.</u>	<u>DATE</u>
CASCO PASSAGE BUOY 1	44-11 ✓	1082 ✓	68-27 ✓	897 ✓	45	182q	10/8/50
CASCO PASSAGE BUOY 3	44-11 ✓	1170 ✓	68-28 ✓	71 ✓	30 $\frac{1}{2}$	181q	"
CASCO PASSAGE BUOY 4	44-11 ✓	1309 ✓	68-28 ✓	417 ✓	26	58r	10/9/50
CASCO PASSAGE BUOY 5	44-11 ✓	1234 ✓	68-28 ✓	481 ✓	23 $\frac{1}{2}$	57r	"
CASCO PASSAGE BUOY 7	44-11 ✓	1213 ✓	68-28 ✓	916 ✓	10 $\frac{1}{2}$	59r	"
CASCO PASSAGE BUOY 9	44-11 ✓	1100 ✓	68-29 ✓	130 147 ✓	18 $\frac{1}{2}$	179q	10/8/50
CASCO PASSAGE BUOY 10	44-11 ✓	1150 ✓	68-29 ✓	893 ✓	23 $\frac{1}{2}$	178 q	"
LONG LEDGE BUOY 2	44-11 ✓	918 ✓	68-27 ✓	1293 ✓	29	183q	"
LONG LEDGE BUOY 4	44-11 ✓	449 ✓	68-28 ✓	350 ✓	24	185q	"
JOE GOTT SHOAL BUOY 3	44-11 ✓	263 ✓	68-28 ✓	326 ✓	27	184q	"
TEN FOOT SHOAL BUOY 4A	44-11 ✓	217 ✓	68-28 ✓	619 ✓	40 $\frac{1}{2}$	186q	"
YARD ROCK BUOY 5	44-11 ✓	117 ✓	68-28 ✓	761 ✓	30	187q	"
LONG LEDGE BUOY 6	44-11 ✓	418 ✓	68-28 ✓	1263 ✓	41	188q	"
YORK NARROWS BELL BUOY	44-11 ✓	1479 ✓	68-26 ✓	1199 ✓	46	4r	10/9/50
ROUND I. LEDGE BUOY 4	44-10 ✓	1500 ✓	68-26 ✓	1123 ✓	7	128r	"
FIR PT. LEDGE BUOY 3	44-10 ✓	1611 ✓	68-25 ✓	1091 ✓	28 $\frac{1}{2}$	1r	"
CROW I. LEDGE BUOY 2	44-11 ✓	329 ✓	68-25 ✓	1303 ✓	30 $\frac{1}{2}$	2r	"
NORTH PT. BUOY 1	44-11 ✓	990 ✓	68-25 ✓	969 ✓	30	3r	"

NOTE: See Notice to Mariners, No. 43, 1950 for name changes on Casco Passage buoys.

LIST OF SIGNALS
To Accompany

HYDROGRAPHIC SURVEY H-7834 (Field No. Gi-1450)

TRIANGULATION STATIONS

BOWES, 1934-44

EGG ROCK BEACON, 1907

SHIP AND BARGE BEACON, 1908-44

MARKED TOPOGRAPHIC STATIONS (Source, compilation T-8569 & 8570)
(1944) (1944)

LARGE BOULDER, 1944

CON, 1944

BEEN, 1944

HEAD, 1944

ORONO POINT BEACON, 1944

*MARKED TOPOGRAPHIC STATIONS (Source, azimuth & distance from topo control points)

ACE, 1950 Vol. 1, Pg. 6

MAG, 1950 Vol. 1, Pg. 7

BACK, 1950 Vol. 1, Pg. 9

NUX, 1950 " 1, " 6

BAT, 1950 " 1, " 7

OPEE, 1950 " 1, " 8

BOLD, 1950 " 1, " 7

*(According to par. 2393 of the Manual these stations should be shown as Hydrographic signals, how-ever, they were designated and marked as Topo signals by the Field Party and are shown as such on the smooth sheet.

TOPOGRAPHIC STATIONS (Source, See par. "F" of the Descriptive Report)

SAM YAK TRY ZOO WEE sub. sta. MAG

TOPOGRAPHIC STATIONS (Source, Compilations T-8569 & 8570)
(1944) (1944)

ART CUT DAY END FEZ FAR FOG FUN GEM HEM LAD

NEW NIX TAP

TOPOGRAPHIC STATIONS (Source, compilation T-8569) (Origin of Hydro signals)
(1944)

1139 1148 1150 1152 1157 1300 1303 1343 1394 sub. sta. MAG

(Source, compilation T-8570)

781 1127 1130 1134 1135 1137 1138 1395 ROUND, 1944

sub. sta. ICE

(con't)

HYDROGRAPHIC STATIONS

BOB	Vol. 1,	Pg. 4
CAB	" 1,	" 6
COD	" 1,	" 4
DEB	" 1,	" 6
EAR	" 1,	" 6
EBB	" 1,	" 4
GAL	" 1,	" 4
GOB	" 1,	" 9
HEX	" 1,	" 4
ICE	" 1,	" 5
IDA	" 1,	" 8
IVY	" 1,	" 7J
JAP	" 1,	" 5
KEN	" 1,	" 5
LEO	" 1,	" 5
MAX	" 1,	" 8
NED	" 1,	" 8
TUB	" 1,	" 8
VAL	" 1,	" 9
WAR	" 1,	" 9

~~NON~~FLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED }
~~DISCONTINUED~~ } STRIKE OUT ONE

Rockland, Maine

11 October, 19 50

I recommend that the following ~~objects~~ ^{buoys} which have ~~(insert)~~ been ~~inspected~~ ^{field inspected and positions checked} be charted on ~~(delete from)~~ the charts indicated.

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

W. F. Malnate

Chief of Party.

STATE			POSITION				METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
Maine			LATITUDE		LONGITUDE								DATUM
CHARTING NAME	DESCRIPTION	SIGNAL NAME	° ' D.M. METERS	° ' D.P. METERS								
C1	Casco Passage Buoy 1		44 11 1082	68 27 895	NA 1927	Sextant	10-8-50	X	X	X	1202, 308, 307, 227	
S3	Casco Passage Buoy 3		44 11 1172	68 28 068	"	"	"	X	X	X	1202, 308, 307, 227	
S4	Casco Passage Buoy 4		44 11 1312	68 28 416	"	"	"	X	X	X	1202, 308, 307, 227	
S5	Casco Passage Buoy 5		44 11 1237	68 28 479	"	"	"	X	X	X	1202, 308, 307, 227	
S7	Casco Passage Buoy 7		44 11 1217	68 28 919	"	"	"	X	X	X	1202, 308, 307, 227	
S9	Casco Passage Buoy 9		44 11 1098	68 29 141	"	"	"	X	X	X	1202, 308, 307, 227	
S10	Casco Passage Buoy 10		44 11 1150	68 29 903	"	"	"	X	X	X	1202, 308, 307, 227	
S2	Long Ledge Buoy 2		44 11 918	68 27 1289	"	"	"	X	X	X	1202, 308, 307, 227	
S4	Long Ledge Buoy 4		44 11 449	68 28 352	"	"	"	X	X	X	1202, 308, 307, 227	
S3	Joe Gott Shoal Buoy 3		44 11 ²⁶³ 275	68 28 ³²⁶ 309	"	"	"	X	X	X	1202, 308, 307, 227	
N4A	Ten Foot Shoal Buoy 4A		44 11 222	68 28 615	"	"	"	X	X	X	1202, 308, 307, 227	
S5	Yard Rock Buoy 5		44 11 120	68 28 763	"	"	"	X	X	X	1202, 308, 307, 227	
S6	Long Ledge Buoy 6		44 11 419	68 28 1266	"	"	"	X	X	X	1202, 308, 307, 227	

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.

~~NON~~FLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
~~TO BE DELETED~~

STRIKE OUT ONE

Rockland, Maine

11 October, 1950

~~Objects~~
Buoys

field inspected and positions checked

I recommend that the following ~~objects~~ which have ~~(not been)~~ been inspected from seaward to astern ~~of the charted positions of landmarks~~ be charted on ~~(revised charts)~~ the charts indicated.

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

W. F. Malnate

Chief of Party.

STATE Maine			POSITION					METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED		
CHARTING NAME	DESCRIPTION	SIGNAL NAME	LATITUDE		LONGITUDE		DATUM								
			° ' "	D.M. METERS	° ' "	D.P. METERS									
BELL	York Narrows Bell Buoy		44	11	1480	68	26	1198	MA 1927	Sextant Fix	10-9-50				1202, 308, 307, 227
S4	Round Island Ledge Buoy 4		44	10	1500	68	26	1137 ²³	"	"	"				1202, 308, 307, 227
S3	Fir Point Ledge Buoy 3		44	10	1606	68	25	1093	"	"	"				1202, 308
S2	Crow Island Ledge Buoy 2		44	11	326	68	25	1304	"	"	"				1202, 308, 307
S1	North Point Buoy 1		44	11	998	68	25	977 ²⁹	"	"	"				1202, 308, 307

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.

ADVANCE REPORT OF DANGERS TO BE CHARTED

Survey (Sheet) No. GI-1450 Datum NA 1927 Locality Casco Passage State Maine Date 11 September 1950

I recommend that the following dangers to navigation be charted. The positions given have been checked after listing. Checked by P. A. Stark

W. F. Malinzo Chief of Party.

TYPE OF DANGER	DEPTH (FEET) *		LATITUDE AND LONGITUDE		FROM CHARTED OBJECT OR NATURAL FEATURE †			CHART USED ‡		DATE OF LOCATION	REMARKS
	FATHOMETER	LEAD-LINE		SECONDS (IN METERS) †	TRUE BEARING	DISTANCE (METERS)	OBJECT OR FEATURE	No.	PRINT DATE		
Shoal	3 2		44 11 68 29	1775 ^{66.4} 1035 ^{8.5}	33.8°	1890 1903	Egg Rock Beacon			9-10-50	Pos. 173 "g" day.
Rock		0	44 11 68 29	1684 ⁷⁵ 860 ¹	39.6°	23 1935	Egg Rock Beacon			9-10-50	Pos. 187 "g" day.
Shoal	7		44 11 68 29	1295 ⁸⁷ 788 ⁷⁴	50.8°	1715 ²	Egg Rock Beacon			8-29-50	Pos. 173-174 "a" day.
No Shoal	13		44 11 68 29	1007 915	55.5°	1434	Egg Rock Beacon			9-10-50	Pos. 209 "g" day.
Shoal	13 15		44 11 68 28	380 169	8.1	693 704	Oreno Pt. Beacon			9-9-50	Pos. 96-97 "f" day.
Shoal	9 1/2		44 10 68 26	1700 998	120.1°	87 1991	Oreno Pt. Beacon			9-9-50	Pos. 150-151 "f" day.
Shoal	4 3 1/2		44 10 68 26	1632 653	122.7°	1978 ²	Oreno Pt. Beacon			9-9-50	Pos. 165 "f" day.
<i>Superseded by smooth sheet information</i>											

* 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.

ADVANCE REPORT OF DANGERS TO BE CHARTED

Survey (Sheet) No. GI-1450 Datum NA 1927 Locality Casco Passage State Maine Date 11 September 1950

I recommend that the following dangers to navigation be charted. The positions given have been checked after listing. Checked by P. A. Stark

W. F. Halmato

Chief of Party.

TYPE OF DANGER	DEPTH (FEET) *		LATITUDE AND LONGITUDE		FROM CHARTED OBJECT OR NATURAL FEATURE †			CHART USED ‡		DATE OF LOCATION	REMARKS
	FATHOMETER	LEAD-LINE	°	SECONDS (IN METERS)	TRUE BEARING	DISTANCE (METERS)	OBJECT OR FEATURE	No.	PRINT DATE		
Shoal	2.0		44 21	1162	2.°	839	Orange Pt. Beacon			8/29/50	87p to 88p Pos. 97-98 "a" day
	3.0		68 28	385 430	292.9°	796					
Shoal	4.0		44 21	1174	1.5°	902	Orange Pt. Beacon			8/29/50	Pos. 110-111 "a" day
	4.0		68 28	190 360	292.0°	696					
Shoal	Shoaler here 15		44 21	1236			Orange Pt. Beacon			8/29/50	Pos. 116-117 "a" day
	15		68 28	532	295.5°	969					
<i>Superseded by smooth sheet information</i>											

* 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.

ADVANCE REPORT OF DANGERS TO BE CHARTED

Survey (Sheet) No. **N-783 (01-3450)** Datum **NA 1927** Locality **Coast Passage** State **Maine** Date **1 December 1950**

I recommend that the following dangers to navigation be charted. The positions given have been checked after listing. Checked by **F. A. Stark**

W. F. Malinzo Chief of Party.

TYPE OF DANGER	DEPTH (FEET)*		LATITUDE AND LONGITUDE		FROM CHARTED OBJECT OR NATURAL FEATURE †			CHART USED ‡		DATE OF LOCATION	REMARKS	
	FATHOM-METER	LEAD-LINE	°	'	TRUE BEARING	DISTANCE (METERS)	OBJECT OR FEATURE	NO.	PRINT DATE			
Shoal	12 1/2		44 11	68 29	1220 138 4	42.1/4	2210	Egg Rock Beacon			10/6/50	Fos. 119-120 "q" day
Shoal	13		44 11	68 28	1336 0 894	272 1/2	1268	Cross Pt. Ho.			10/2/50	Fos. 92-93 "p" day
Shoal	9		44 11	68 27	226 32 517	144 1/2	774	ditto			10/6/50	Fos. 9-10 "q" day
Shoal	13	13	44 11	68 28	371 163 9	8.1°	693	ditto			9/20/50	Fos. 99 "1" day
Shoal	13		44 11	68 29	1007 913	53.5	1434	Egg Rock Beacon			9/10/50	This shoal reported 9/11/50 was investigated on "q" day 10/8 and determined to be a stray sounding.
<i>Superseded by smooth sheet information</i>												

* 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.

APPROVAL SHEET

TO ACCOMPANY

HYDROGRAPHIC SURVEY H-7834 (FIELD NO. GI-1450)


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
Commander, USC&GS
Comdg. Ship GILBERT



ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-7834 (Field No. Gi-1450)

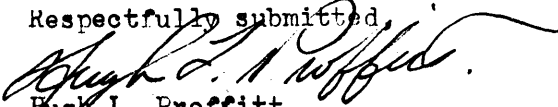
FATHOMETER SOUNDINGS

An overlay tracing is being submitted with the smooth sheet showing critical soundings and their position numbers. Due to heavy kelp conditions and also to the fact that the field party did not comply with par. 11, Supplemental Instructions dated 24 Feb. 1950 concerning hand lead investigations of shoal areas, it is recommended that fathometer readings be reviewed before any soundings are charted. in such areas. |||

DISCREPANCIES

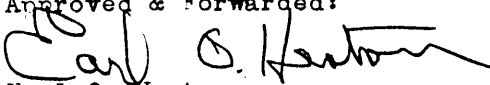
Lat. 44-11.99' / LONG. 68-29.80' Existence of rock awash charted in this area was neither confirmed nor disproved by field party. (plotted from T-8569)

Respectfully submitted,


Hugh L. Proffitt
Cartographer.

Norfolk, Va.
13 Feb. 1951

Approved & Forwarded:


Earl O. Neaton
Supervisor, Southeastern District.

RHC

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~

26 February 1951

Division of Charts: R. H. Carstens

Plane of reference approved in 10
volumes of sounding records for

HYDROGRAPHIC SHEET 7834

Locality Casco Passage, Maine

Chief of Party: W. F. Malnate in 1950
Plane of reference is mean low water, reading
3.0 ft. on tide staff at Mackerel Cove
17.5 ft. below B. M. 7 (1950)

Height of mean high water above plane of reference is 10.0 feet.

Condition of records satisfactory except as noted below:

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

GEOGRAPHIC NAMES

Survey No. H-7834

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
<u>Maine</u>										US&B	1
<u>Blue Hill Bay</u>										4	2
<u>Jericho Bay</u>											3
											4
<u>Swans Island</u>										US&B	5
<u>Mackerel Cove</u>				(location of tide gage)							6
<u>Garden Islands</u>		*									7
<u>Orono Island</u>											8
<u>Phinney Island</u>											9
<u>The Triangles</u>		*									10
<u>Casco Passage</u>											11
<u>Black Island</u>											12
<u>Opechee Island</u>										US&B	13
<u>Long Ledge</u>		*									14
<u>York Narrows</u>											15
<u>Buckle Island</u>											16
<u>Egg Rock</u>											17
<u>Hawley ledge</u>		*									18
<u>Johns Island</u>										US&B	19
											20
											21
											22
											23
											24
											25
											26
											27

Names underlined
in red are approved
3-2-51

* = not penciled on uninked
sheet—see chart 308 for
placement.

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7834

Records accompanying survey:

Boat sheets 1; sounding vols. 10; wire drag vols.;
 bomb vols.; graphic recorder rolls 8 env.;
 special reports, etc. 1 Smooth Sheet 1 Overlay Tracing

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

Number of positions on sheet	.....	2665
Number of positions checked	.....	185 RKD 56 LVE
Number of positions revised	.....	1 RKD 0 LVE
Number of soundings revised (refers to depth only)	.....	38 RKD 19 LVE
Number of soundings erroneously spaced	.....	70 RKD 0 LVE
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	8 hrs
Junctions	Time	0 hrs
Verification of soundings from graphic record	Time	80 hrs

Verification by R. K. DE LAWDER Total time 153 1/2 hrs Date 5-4-51
L. V. EVANS Total time 75 hrs Date 4-2-51

Reviewed by J. F. Jordan Time 57 Date 5-22-51

*De Lawder began verification 4-2-51 at p. 36 of day 9-9-50
 page 39 vol 4
 Every thing preceding this p. was checked by LV Evans*

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7834

FIELD NO. GI-1450

Maine, Blue Hill Bay, Casco Passage
Surveyed in August to October, 1950 Scale 1:10,000
Project No. CS-265

Soundings:

808 Fathometer
Handlead

Control:

Visual fixes on shore signals

Chief of Party - W. F. Malnate
Surveyed by - L. F. Woodcock
Protracted by - S. M. Tarkenton
Soundings plotted by - S. M. Tarkenton
Verified and inked by - L. V. Evans and R. K. DeLawder
Reviewed by - G. F. Jordan, 22 May 1951
Inspected by - R. H. Carstens

1. Shoreline and Control

- a. The shoreline is from air photographic surveys T-8569 (1944) and T-8570 (1946). The ledge and reef symbolization on these surveys is in general too extensive and conflicts with present hydrographic information. The revised limits are shown on the present survey. Significant discrepancies are discussed below:
- (1) The reef on T-8569 (Chart 227) in lat. $44^{\circ} 11.82'$, long. $68^{\circ} 27.71'$, originating with field inspected (F.I.) photograph No. 44-C-1395 should be disregarded. The feature marked on the photograph is 45 meters northeastward of the reef which appears on the photograph, the present survey and T-1397b (1875).
 - (2) The uncharted rock awash on T-8569 in lat. $44^{\circ} 11.65'$, long. $68^{\circ} 28.53'$, originating with F.I. photograph 44-C 1394 should be disregarded. According to air photographic field inspection the reef is awash at minus 1-ft. tide. However, the hydrographer states the reef does not uncover,

and a sunken rock has been plotted on the smooth sheet. The least depth on this reef is not known as the sounding lines here were spaced 20 meters apart, and there is no record of drift sounding.

- (3) The ledge on T-8569 (Chart 227) in lat. $44^{\circ} 11.85'$, long. $68^{\circ} 29.2'$, originating with F.I. photograph 44-C 1395 should be disregarded. Sounding lines spaced 40 meters apart show depths of 4 to 8 feet. Notes on the photograph identify two portions of the reef falling between the sounding lines and uncovering at M.L.W. Therefore, two rocks awash have been plotted from the photograph.
- (4) The reef on T-8570 (Chart 227) in lat. $44^{\circ} 11.5'$, long. $68^{\circ} 28.92'$, originating with F.I. photograph 44-C 1394 should be disregarded. A note on the photograph and depths on the present survey reveal that there is 1-ft. depth on this unexposed reef.
- (5) The uncharted reef on T-8569 in lat. $44^{\circ} 11.75'$, long. $68^{\circ} 28.30'$, originating with F.I. photograph 44-C 1394 should be disregarded. The note on the photograph states that the reef is awash at minus 1-ft. tide. However, the present Descriptive Report states that the reef is not awash at M.L.W., and a letter containing information from the hydrographer and filed in the Standard Files of T-8569 states that the reef is not awash at minus 1-ft. tide. The 3-ft. sounding on the present survey is on a pinnacle 1 ft. above surrounding reef and is adequate for charting.

- b. The control is from prior triangulation and the air photographic surveys mentioned above, supplemented with topographic and hydrographic stations established by the present survey.

2. Bottom Configuration and Depth Curves

Most of the survey covers an area of very irregular, rocky bottom. In the areas of comparatively smooth bottom some of the graphic profiles reveal a sedimentary layer having a thickness of 25 feet.

The depth curves could be completely drawn and they adequately reveal the bottom configuration.

3. Soundings at Crossings

The depths at sounding line crossings are in very good agreement.

4. Adjoining Surveys

There are no contemporary surveys adjoining the present survey.

5. Comparison with Wire Drag Surveys

H-2831 (1906-11) W.D. on scale 1:20,000; H-2965 (1908-11) W.D. on scale 1:10,000; H-2967 (1908) W.D. on scale 1:20,000

These surveys overlap the eastern and western portion of the present survey and cover a narrow strip thru Casco Passage. Several soundings have been transferred to the present survey from H-2965 and H-2967.

A comparison reveals several conflicts between effective wire-drag depths and depths on the present survey. These conflicts occur near the edge of the wire-drag strips and the clearances should be disregarded. An example of the discrepancies occurs in lat. $44^{\circ} 12.38'$, long. $68^{\circ} 29.88'$, where present 27-to 30-ft. depths are apparently cleared by 31 ft. In lat. $44^{\circ} 11.72'$, long. $68^{\circ} 28.61'$, the present 15-ft. sounding in the channel is apparently cleared by 17 ft.

6. Comparison with Prior Surveys

a. H-1336 (1876-1905) on scale 1:10,000; H-1401 (1878) on scale 1:10,000

These prior surveys lack much of the detail obtained by the intensive development on the present survey. In comparable areas of smooth bottom in 50-to 80-ft. depths, it is apparent that inaccuracies were incurred in some of the leadline soundings on the prior surveys. In lat. $44^{\circ} 11.9'$, long. $68^{\circ} 26.4'$, prior depths are 7 ft. shoaler than the 72-ft. depths on the present survey. Discussion and disposal of significant prior soundings are given below:

- (1) The 2-ft. sounding on H-1366 (Chart 227), falling in lat. $44^{\circ} 12.0'$, long. $68^{\circ} 29.78'$ on the present survey, is superseded by a rock awash 40 meters westward, transferred from T-8569 (1944). The 2-ft. (rk) sounding was obtained midway between positions on line, and its position is not accurately fixed. The rock awash is considered adequate for charting purposes.

- (2) The 18-ft. sounding on H-1366 (Chart 227) falling in present 32-ft. depths in lat. $44^{\circ} 11.7'$, long. $68^{\circ} 27.86'$, should be disregarded. The 18 is one of several consecutive soundings which are in disagreement with an overlapping line on the prior survey and with present hydrography. It is considered that the prior line was run 90 meters northeastward where the soundings would be in agreement with present hydrography.
- (3) The 17-ft. sounding on H-1366 (Chart 227) falling in present depths of about 38 ft. in lat. $44^{\circ} 11.21'$, long. $68^{\circ} 28.86'$, should be disregarded. The 17 is one of several consecutive soundings which are in disagreement with an overlapping line on the prior survey and with present hydrography. Comparable present depths fall about 30 meters northward.
- (4) The 6-ft. sounding on H-1366 (Chart 227) falling in lat. $44^{\circ} 11.15'$, long. $68^{\circ} 28.55'$, and the 10-ft. sounding 130 meters southeastward of that position should be disregarded. These soundings are considered to be erroneously positioned. The present survey developed Hawley Ledge adequately and shows a least depth of 6 ft. midway between the prior 6-and 10-ft. soundings.
- (5) The 41-ft. sounding on H-1366 (Chart 227) falling in lat. $44^{\circ} 11.16'$, long. $68^{\circ} 29.95'$, is actually 47 ft. in the sounding records and should be disregarded.

b. T-1396 (1875) and T-1397b (1875) on scale 1:10,000

These prior topographic surveys show considerable ledge and reef detail which is substantiated by the present survey. However, the following discrepancies were noted:

- (1) The bare rock on T-1397b (Chart 227) falling near the shoreline in lat. $44^{\circ} 11.95'$, long. $68^{\circ} 27.34'$, should be disregarded. F.I. photograph 44-C 1395 reveals that the foreshore in this area was inspected and no detached bare rock was indicated at this position.
- (2) The rock awash on T-1396 (Chart 227) falling in 6-ft. depths at the edge of hydrography in lat. $44^{\circ} 10.75'$, long. $68^{\circ} 28.35'$, should be disregarded. Six air photographs of the area do not show a rock here, but they do show a reef 120 meters southward where no rock or reef is shown on the prior survey.

The present survey supplemented with bottom characteristics and a few prior soundings carried forward adequately supersedes the prior surveys in the common area.

7. Comparison with Chart 227 (Print of 50-10/25)
Chart 307 (Print of 51-2/19)
Chart 308 (Print of 50-9/11)

The insert of Casco Passage on Chart 227 covers most of the area of the present survey.

A. Hydrography

The charted hydrography originates with the prior surveys supplemented with the present survey prior to review. Advance information of the present survey was applied through Chart Letter 916 (1950) and Chart Letter 688 (1950) which included a tracing of the boat sheet. Ledge and reef were applied from the air photographic surveys.

- (1) Several of the charted soundings were revised 1 ft. in depth during smooth-plotting and verification. Other charted soundings revised more than 1 ft. during verification and review are listed below:

<u>Chart</u> <u>Depth</u>	<u>Revised</u> <u>Depth</u>	<u>Lat.</u>	<u>Long.</u>	<u>Chart</u>
12 ft.	8 ft.	44° 11.68'	68° 29.72'	227
9 ft.	11 ft.	44° 11.67'	68° 28.70'	227
16 ft.	18 ft.	44° 11.25'	68° 28.53'	227
4 ft.	8 ft.	44° 11.49'	68° 28.17'	227
5 ft.	22 ft.	44° 11.77'	68° 27.65'	227
19 ft.	23 ft.	44° 12.23'	68° 27.05'	227
11 ft.	13 ft.	44° 11.28'	68° 28.35'	227
3 ft.	11 ft.	44° 11.96'	68° 29.77'	227
10 ft.	13 ft.	44° 11.42'	68° 27.95'	227
3 ft.	9 ft.	44° 11.95'	68° 27.10'	227

- (2) The 1-ft. sounding applied to Chart 227 in lat. 44° 11.75', long. 68° 28.37', from the boat sheet tracing in Chart Letter 688 (1950) should be disregarded. The boat sheet actually shows a 7-ft. sounding.
- (3) Chart 227 shows two spots appearing as bare rocks in lat. 44° 11.31', long. 68° 27.54', and lat. 44° 11.5', long. 68° 29.07'. They are imperfections in reproduction.

B. Aids to Navigation

The aids to navigation on the survey and chart are in substantial agreement and adequately mark the features intended.

8. Condition of the Survey

- a. The Descriptive Report is complete and comprehensive.
- b. Numerous notes in the sounding volumes stating "probably kelp in this area" were disregarded. Information from the hydrographer reveals that the notes referred to questionable traces on the fathograms and not to surface conditions.

Detached investigations or inspections should have been fully recorded, with positions and amount of time spent. Reference is made to paragraphs 1a(2) and 1a(5) above.

- c. The survey was smooth-plotted accurately and neatly. The overlay tracing identifying critical and questionable soundings aided considerably in the review of the survey.
- d. The survey provides excellent coverage of a very irregular rocky bottom. Numerous areas were closely developed, and several questionable shoal recordings were investigated. Although the the fathogram profiles abound with kelp or seaweed, strays, and side echoes, several critical areas were not drift sounded with handlead to determine the correct least depth. An attempt was made during plotting and verification to correctly interpret the graphic records. Discussion of certain soundings follows:
 - (1) The 9-ft. sounding plotted in lat. $44^{\circ} 11.15'$, long. $68^{\circ} 28.75'$, appears to be kelp on a 14-ft. shoal. The sounding was plotted, however, as H-1336 shows 10 ft. on this shoal.
 - (2) The 18-ft. sounding plotted in York Narrows in lat. $44^{\circ} 11.25'$, long. $68^{\circ} 28.53'$, is questionable. Two lines show light traces to 18 ft. here, superimposed on 21- and 25-ft. depths, respectively.
 - (3) The undeveloped 22-ft. sounding plotted in lat. $44^{\circ} 11.71'$, long. $68^{\circ} 27.67'$, may be on kelp rising from a depth of 28 ft.
 - (4) The two 13-ft. soundings plotted in lat. $44^{\circ} 11.66'$, long. $68^{\circ} 29.1'$, may be on kelp rising from depths of 18 ft.

- (5) In addition to the questionable depths above the least depths on the following shoals were not determined:

7 ft. in lat. $44^{\circ} 11.65'$, long. $68^{\circ} 28.54'$
13 ft. in lat. $44^{\circ} 11.47'$, long. $68^{\circ} 27.00'$
15 ft. in lat. $44^{\circ} 11.07'$, long. $68^{\circ} 26.78'$
11 ft. in lat. $44^{\circ} 11.10'$, long. $68^{\circ} 28.80'$
15 ft. 80 meters northwestward of the 11 ft.

9. Compliance with Project Instructions


The survey adequately complies with the project instructions except that handlead investigation was not made on several important shoals.


10. Additional Field Work Recommended

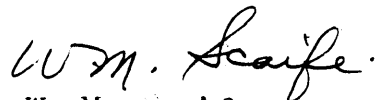
The shoals listed in paragraphs 8d(3), (4) and (5) are recommended for consideration when future surveys are executed in the vicinity.

Examined and approved:


H. R. Edmonston
Chief, Nautical Chart Branch


H. Arnold Karo
Chief, Division of Charts


L. S. Hubbard
Chief, Section of Hydrography


W. M. Scaife
Chief, Division of Coastal Surveys

DESCRIPTION OF RECOVERABLE TOPOGRAPHIC STATION

Name **MAG** Year 1950
General locality **Casco Passage, Maine** Sheet No. T-8569
Locality **Johns Island** Datum NA 1927
Chief of party **W. F. Malnate**
Scaled by **L. F. Woodcock** Lat. **44 11** Meters **1803**
Checked by **C. Hanavich** Long. **68 29** **571**
Approximate elevation above high-water mark **15** feet

Sketch for shoreline and air photograph reference distances and reference points:



Location method: Planetable, Sextant, Theodolite, Air photographic plot
Detailed description: Station is located on the SW tip of Johns Id. Johns Id. is just SW of Opechee Id., about 1.0 mile W of Black Id., and about 0.3 mile N of the entrance to Casco Passage from the W. Station is a standard topographic disk, stamped "MAG 1950" cemented in a drill hole on a flat topped rock (witnessed with a red top tripod signal) about 3 meters in diameter and 5 meters SW of the tree line.

SHORELINE REFERENCE DISTANCES				REFERENCE POINTS IDENTIFIABLE ON AIR PHOTOGRAPHS			
Object	Distance in meters	Direction	Azimuth	Object	Distance in meters	Direction	Azimuth
MHWL	10	00° 00' SW				00° 00'	

Distances must be horizontal distances actually measured on the ground—not scaled.

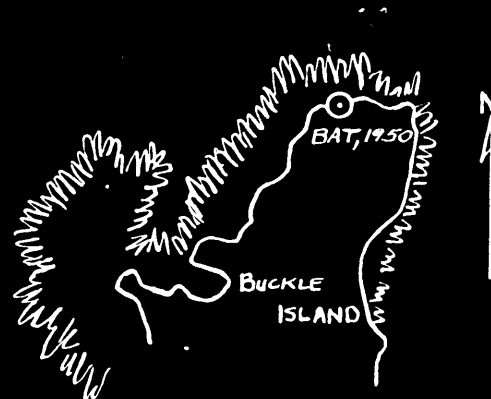
Above distances measured by: **L. F. Woodcock**

REFERENCES: Topographic Manual, paragraphs 16, 29, 30, 57, and page 52; Hydrographic Manual, 2351.

DESCRIPTION OF RECOVERABLE TOPOGRAPHIC STATION

Name **BAT** Year 1950
General locality **Casco Passage, Maine** Sheet No. T-8570
Locality **Buckle Island** Datum NA 1927
Chief of party **W. F. Malnate**
Scaled by **L. F. Woodcock** Lat. **44 10** Meters **1729**
Checked by **C. Hanavich** Long. **68 28** **723**
Approximate elevation above high-water mark **12** feet

Sketch for shoreline and air photograph reference distances and reference points:



Location method: Planetable, Sextant, Theodolite, Air photographic plot
Detailed description: Station is located W of the entrance to Buckle Harbor at the N end of Buckle Island and about 100 meters W of the northernmost tip on the Island. The Island is located S of York Narrows and W of the NW end of Swans Island. Station is a standard topographic disk, stamped "BAT 1950", cemented in a drill hole in rock ledge (white washed) 10 meters N of tree line.

SHORELINE REFERENCE DISTANCES				REFERENCE POINTS IDENTIFIABLE ON AIR PHOTOGRAPHS			
Object	Distance in meters	Direction	Azimuth	Object	Distance in meters	Direction	Azimuth
MHWL	4	00° 00' N				00° 00'	

Distances must be horizontal distances actually measured on the ground—not scaled.

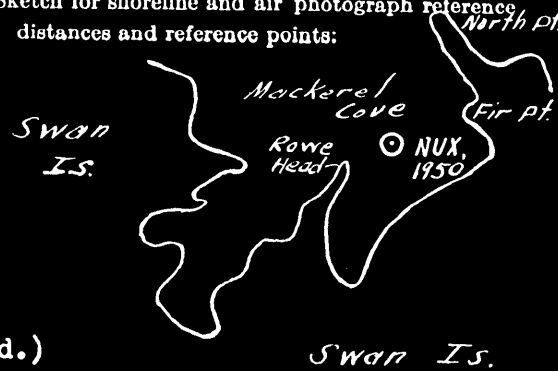
Above distances measured by: **L. F. Woodcock**

REFERENCES: Topographic Manual, paragraphs 16, 29, 30, 57, and page 52; Hydrographic Manual, 2351.

DESCRIPTION OF RECOVERABLE TOPOGRAPHIC STATION

Name **NUX** Year **1950**
 General locality **Blue Hill Bay, Maine** Sheet No. **T-8570**
 Locality **Mackerel Cove** Datum **NA 1927**
 Chief of party **W. F. Malnate**
 Scaled by **L. F. Woodcock** Lat. **44 10 978** Meters
 Checked by **C. Hanavich** Long. **68 26 57**
 Approximate elevation above high-water mark **12** feet

Sketch for shoreline and air photograph reference distances and reference points:



Location method: Planetable, Sextant, Theodolite, Air photographic plot
 Detailed description: Station is on the highest point of a rocky ledge located in Mackerel Cove, about 1.2 mile SSW of North Point (Swans Id.) about 1.0 mile SE of Round Island, about 450 meters NE of Rowe Head (Swans Id.) and about on a line and between Rowe Head and Fir Point (Swans Id.). Station is a standard topographic disk cemented in rock ledge and stamped "NUX 1950".

SHORELINE REFERENCE DISTANCES				REFERENCE POINTS IDENTIFIABLE ON AIR PHOTOGRAPHS			
Object	Distance in meters	Direction	Azimuth	Object	Distance in meters	Direction	Azimuth
		00° 00'				00° 00'	

Distances must be horizontal distances actually measured on the ground—not scaled.

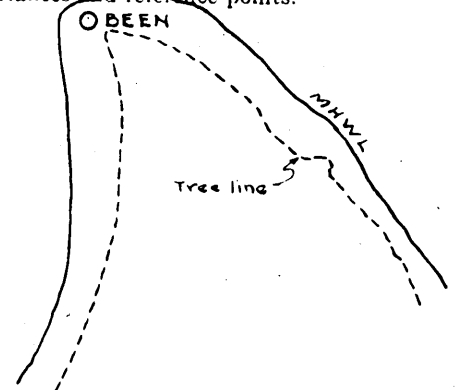
Above distances measured by: **L. F. Woodcock**

REFERENCES: Topographic Manual, paragraphs 16c, 29, 30, 57, and page 52; Hydrographic Manual, 2351.

DESCRIPTION OF RECOVERABLE TOPOGRAPHIC STATION **T8570**

Name **BEEN** Year **1944**
 General locality **Swan Island, Maine** Sheet No. **T-8570**
 Locality **North Point** Datum **N.A. 1927**
 Chief of party **Fred. L. Peacock**
 Scaled by **Abraham L. Goncharsky** Lat. **44 11 817.4** Meters
 Checked by **Walter E. Schmidt** Long. **68 25 718.4**
 Approximate elevation above high-water mark **2** feet

Sketch for shoreline and air photograph reference distances and reference points:



Location method: ~~Planetable, Sextant, Theodolite, Air photographic plot~~
 Detailed description: Station is located on the extreme tip of North Point which is located on the northern side of Swan Island, 12 meters northwest of tree line and 4 meters back of M.H.W.L. Standard Topographic disc stamped "Been. 1944".

SHORELINE REFERENCE DISTANCES				REFERENCE POINTS IDENTIFIABLE ON AIR PHOTOGRAPHS			
Object	Distance in meters	Direction	Azimuth	Object	Distance in meters	Direction	Azimuth
		00° 00'				00° 00'	
M.H.W.L.	4	North					

Distances must be horizontal distances actually measured on the ground—not scaled.

Above distances measured by:

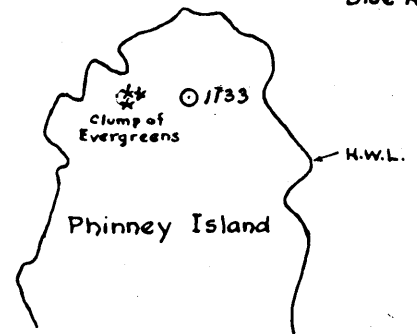
REFERENCES: Topographic Manual, paragraphs 16c, 29, 30, 57, and page 52; Hydrographic Manual, 2351.

DESCRIPTION OF RECOVERABLE TOPOGRAPHIC STATION

T8570

Name **Cross on boulder, (Con)** Year **1944**
 General locality **Blue Hill Bay, Maine** Sheet No. **T-8570**
 Locality **Phinney Island** Datum **N.A. 1927**
 Chief of party **Fred. L. Peacock**
 Scaled by **Abraham L. Goncharsky** Lat. **44** **11** Meters: **819**
 Checked by **Hary R. Rudolph** Long. **68** **27** **191**
 Approximate elevation above high-water mark **20** feet
 Location method: ~~Photogrammetric~~ ~~Stadia~~ ~~Triangulation~~ ~~Trigonometric~~ ~~Altimeter~~ ~~Barometer~~ ~~Leveling~~ ~~Profile leveling~~ ~~Plane table~~ ~~Theodolite~~ ~~Aerial photogrammetry~~

Sketch for shoreline and air photograph reference distances and reference points: **Blue Hill Bay**



Detailed description:
 Station is a cross about 1" deep, chiseled in the top of a white-topped boulder projecting 3 feet above grass, located on the highest point of Phinney Island, which is north of Swan Island located in Blue Hill Bay. Station is on north side of Phinney Island, 25 meters east of a clump of evergreen trees, 60 meters south of M.H.W.L. on end of Point, 35 meters west of M.H.W.L. to east. Boulder is the largest and most conspicuous one on that part of Island.

SHORELINE REFERENCE DISTANCES				REFERENCE POINTS IDENTIFIABLE ON AIR PHOTOGRAPHS			
Object	Distance in meters	Direction	Azimuth	Object	Distance in meters	Direction	Azimuth
		00° 00'				00° 00'	

Distances must be horizontal distances actually measured on the ground—not scaled.

Above distances measured by:
 REFERENCES: Topographic Manual, paragraphs 16, 29, 30, 57, and page 52; Hydrographic Manual, 2351.

DESCRIPTION OF RECOVERABLE TOPOGRAPHIC STATION

T8570

Name **ORONO POINT BEACON** Year **1944**
 General locality **Blue Hill Bay, Maine** Sheet No. **T-8570**
 Locality **York Narrows** Datum **N.A. 1927**
 Chief of party **Fred. L. Peacock**
 Scaled by **Abraham L. Goncharsky** Lat. **44** **11** Meters: **839**
 Checked by **Harry R. Rudolph** Long. **68** **27** **990**
 Approximate elevation above high-water mark **50** feet
 Location method: ~~Photogrammetric~~ ~~Stadia~~ ~~Triangulation~~ ~~Trigonometric~~ ~~Altimeter~~ ~~Barometer~~ ~~Leveling~~ ~~Profile leveling~~ ~~Plane table~~ ~~Theodolite~~ ~~Aerial photogrammetry~~

Sketch for shoreline and air photograph reference distances and reference points:



Detailed description: Station is the large, black, metal, slatted tripod beacon, 26 meters north of the small island which is north of the north end of Orono Island
 (Fixed Aid to Navigation)

SHORELINE REFERENCE DISTANCES				REFERENCE POINTS IDENTIFIABLE ON AIR PHOTOGRAPHS			
Object	Distance in meters	Direction	Azimuth	Object	Distance in meters	Direction	Azimuth
		00° 00'				00° 00'	

Distances must be horizontal distances actually measured on the ground—not scaled.

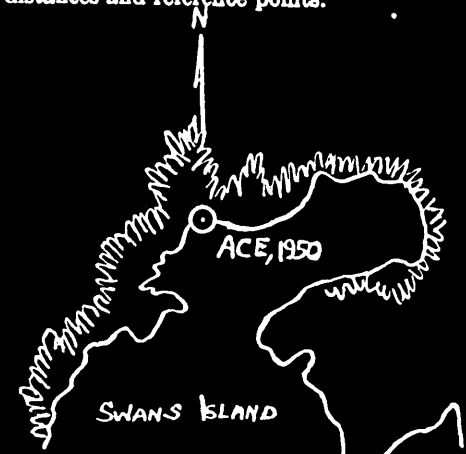
Above distances measured by:
 REFERENCES: Topographic Manual, paragraphs 16, 29, 30, 57, and page 52; Hydrographic Manual, 2351.

DESCRIPTION OF RECOVERABLE TOPOGRAPHIC STATION

Name **ACE** Year **1950**
 General locality **Casco Passage, Maine** Sheet No. **T-8570**
 Locality **Swans Island** Datum **NA 1927**
 Chief of party **W. F. Malnate**
 Scaled by **L. F. Woodcock** Lat. **44** ' **11** Meters **60**
 Checked by **C. Hanavich** Long. **68** ' **28** Meters **00**
 Approximate elevation above high-water mark **10** feet

Location method: Planetable, Sextant, Theodolite, Air photographic plot
 Detailed description: Station is located on SW point of Swans Island, S of Casco Passage and W of Mackerel Cove. It is about 0.3 mile W of Garden Island, about 0.3 mile NNE of the entrance to Buckle Harbor and about 100 meters N of a small cove. Station is a standard topographic disk, stamped "ACE 1950", cemented in a drill hole in ledge (white washed) 11 meters N of tree line.

Sketch for shoreline and air photograph reference distances and reference points:



SHORELINE REFERENCE DISTANCES				REFERENCE POINTS IDENTIFIABLE ON AIR PHOTOGRAPHS			
Object	Distance in meters	Direction	Azimuth	Object	Distance in meters	Direction	Azimuth
		00° 00'				00° 00'	
MHWL	9	N					
MHWL	15	W					

Distances must be horizontal distances actually measured on the ground—not scaled.

Above distances measured by: **L. F. Woodcock**

REFERENCES: Topographic Manual, paragraphs 16, 29, 30, 57, and page 52; Hydrographic Manual, 2351.

DESCRIPTION OF RECOVERABLE TOPOGRAPHIC STATION

Name **BOLD** Year **1950**
 General locality **Casco Passage, Maine** Sheet No. **T-8569**
 Locality **Black Island** Datum **NA 1927**
 Chief of party **W. F. Malnate**
 Scaled by **L. F. Woodcock** Lat. **44** ' **11** Meters **1696**
 Checked by **C. Hanavich** Long. **68** ' **27** Meters **1282**
 Approximate elevation above high-water mark **6** feet

Location method: Planetable, Sextant, Theodolite, Air photographic plot
 Detailed description: Station is located on the S side of Black Island about 350 meters SE of the westernmost point of the island. Black Island is found on the N side of Casco Passage, about 0.3 mile E of Opechee Island and about 1.5 mile NW of North Point (on the NE side of Mackerel Cove) on Swans Island. Station is a standard topographic disk, stamped "BOLD 1950", cemented in drill hole in large grey boulder, 4 meters in dia. & whitewashed.

Sketch for shoreline and air photograph reference distances and reference points:



SHORELINE REFERENCE DISTANCES				REFERENCE POINTS IDENTIFIABLE ON AIR PHOTOGRAPHS			
Object	Distance in meters	Direction	Azimuth	Object	Distance in meters	Direction	Azimuth
		00° 00'				00° 00'	
MHWL	5	S					

Distances must be horizontal distances actually measured on the ground—not scaled.

Above distances measured by: **L. F. Woodcock**

REFERENCES: Topographic Manual, paragraphs 16, 29, 30, 57, and page 52; Hydrographic Manual, 2351.

DESCRIPTION OF RECOVERABLE TOPOGRAPHIC STATION

Name **OPEE** Year **1950**
 General locality **Casco Passage, Maine** Sheet No. **T-8569**
 Locality **Opechee Island** Datum **NA 1927**
 Chief of party **W. F. Malnate** Meters
 Scaled by **L. F. Woodcock** Lat. **44 12 272**
 Checked by **C. Hanavich** Long. **68 28 668**
 Approximate elevation above high-water mark **10** feet

Sketch for shoreline and air photograph reference distances and reference points:



Location method: Planetable, Sextant, Theodolite, Air photographic plot
 Detailed description: Station is located on the south-easternmost point on the south side of Opechee Island, which is N of Casco Passage, NE of Johns Island, W of Black Island and S of Pond Island. Station is a standard topographic disk stamped "OPEE 1950" cemented in a drill hole in the top of a boulder, about 4 feet in diameter and whitewashed.

SHORELINE REFERENCE DISTANCES			
Object	Distance in meters	Direction	Azimuth
MHWL	23	00° 00' NW	

REFERENCE POINTS IDENTIFIABLE ON AIR PHOTOGRAPHS			
Object	Distance in meters	Direction	Azimuth
		00° 00'	

Distances must be horizontal distances actually measured on the ground—not scaled.

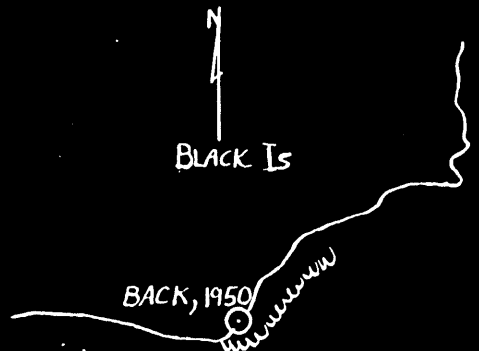
Above distances measured by: **L. F. Woodcock**

REFERENCES: Topographic Manual, paragraphs 16e, 29, 30, 57, and page 52; Hydrographic Manual, 2351.

DESCRIPTION OF RECOVERABLE TOPOGRAPHIC STATION

Name **BACK** Year **1950**
 General locality **Casco Passage, Maine** Sheet No. **T-8569**
 Locality **Black Island** Datum **NA 1927**
 Chief of party **W. F. Malnate** Meters
 Scaled by **L. F. Woodcock** Lat. **44 11 1622**
 Checked by **C. Hanavich** Long. **68 27 652**
 Approximate elevation above high-water mark **12** feet

Sketch for shoreline and air photograph reference distances and reference points:



Location method: Planetable, Sextant, Theodolite, Air photographic plot
 Detailed description: Station is located on the southernmost rounded point of Black Island, and about 400 meters SW of the E side of the island. Black Island is found on the N side of Casco Passage, about 0.3 mile E of Opechee Island and about 0.5 mile NW of North Point on Swans Island. Station is a standard topographic disk, stamped "BACK 1950", cemented in a drill hole on a sloping ledge (white washed) 2.5 meters SE of tree line and on the MHWL.

SHORELINE REFERENCE DISTANCES			
Object	Distance in meters	Direction	Azimuth
		00° 00'	

REFERENCE POINTS IDENTIFIABLE ON AIR PHOTOGRAPHS			
Object	Distance in meters	Direction	Azimuth
		00° 00'	

Distances must be horizontal distances actually measured on the ground—not scaled.

Above distances measured by: **L. F. Woodcock**

REFERENCES: Topographic Manual, paragraphs 16e, 29, 30, 57, and page 52; Hydrographic Manual, 2351.

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7834

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
9-20-51	1202	<i>JHE</i>	Partially applied only Before After Verification and Review
2-1-52	227	<i>J.H. Andrews</i>	Before After Verification and Review
2-21-52	307	<i>[Signature]</i>	Before After Verification and Review <i>Partially applied</i>
7/23/52	308	<i>N.W. Burgoyne</i>	Before After Verification and Review <i>Partially applied</i>
10/23/54	<i>Reconst.</i> 308	<i>JHE</i>	Before After Verification and Review
6-22-61	307	<i>H.R. Johnson</i>	Before After Verification and Review <i>applied</i> <i>through chart 308</i>
9/5/61	1202	<i>J.H. Eaton</i>	Before After Verification and Review <i>Comp. app'd. thru chrt 307 Record of</i>
10-12-62	1202	<i>R.E. Elkins</i>	Before After Verification and Review <i>308 Reconst. Shoreline and along shore details</i> <i>not revised pending reconstruction.</i>
3-13-62	<i>307 Record</i>	<i>W. Logan</i>	Before After Verification and Review <i>thru chart 308.</i>
			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
			Before After Verification and Review
			Before After Verification and Review
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			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After 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.