

8482

Diag. Cht. No. 1201.

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey Hydrographic
Field No. ECFP-1259
Office No. H-8482

LOCALITY

State Maine
General Locality Gulf of Maine
Locality Machias Bay

19 59

CHIEF OF PARTY
H. S. Cole

LIBRARY & ARCHIVES

DATE 11-16-60

8482

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-8482

Field No. ECCP-1259

State Maine

General locality Gulf of Maine

Locality Machias Bay

Scale 1:10,000 Date of survey 18 May to 24 August 1959

Instructions dated 222/MEK S-2-WAHI FP-ECCP 19 December 1958

Vessel East Coast Field Party, Launch CS-183

Chief of party Howard S. Cole, Cdr., U.S.C. & G.S.

Surveyed by Ensign Philip ^L Rotonde

Soundings taken by ~~Automatic~~ graphic recorder, hand lead, ~~and~~ Sounding Pole

Fathograms scaled by Party Personnel

Fathograms checked by Party Personnel

Protracted by George L. Fernandes

Soundings penciled by George L. Fernandes

Soundings in ~~English~~ feet at MLW ~~English~~ and are true depths

REMARKS:

JHE

DESCRIPTIVE REPORT
TO ACCOMPANY

Hydrographic Survey H-8482⁽¹⁹⁵⁹⁾ Field No. ECFR-1259
Machias Bay, Maine

PROJECT: CS-408
EAST COAST FIELD PARTY
SURVEYED BY Lt (jg) Phillip R. Rotondo

SCALE: 1:10,000
HOWARD S. COLE, CHIEF OF PARTY

A. PROJECT

Work on Project CS-408 was executed in accordance with Instructions 222/MEK, S-2-WA&HI, FP-East Coast, dated 19 December 1958 ✓

B. SURVEY LIMITS AND DATES

The area covered by this survey extends from Lat. 44-36-30 N to 44-43-30 and from Long. 67-17-30 to 67-23-30, in the Gulf of Maine east of Petit Manan^{Island}, and covers Machias Bay. Field work began on 18 May and ended on 24 August 1959. ✓

This sheet will make junction with ECFP-1159 to the southeast and with ECFP-1359 to the northwest. Neither of these sheets were completed during this field season. A satisfactory ^{overlap} junction was made with preliminary registry number H-1686 (1885). ^{survey discontinued} H-9503 will be smooth plotted.

C. VESSELS AND EQUIPMENT

Launch CS-183 was used on the entire survey, which was based at the Stinson Packing Company dock, Machiasport, Maine. This launch is a 33 foot, wooden-hulled, cabin type craft. Since all turns were made a full rudder and the vessel so small, the advance of the launch can be considered negligible. ✓

EDO depth recorders type 225C were used throughout the entire survey. Recorder No. 15 was used on 18 May and on 19 May 1959. Recorder No. 16 was used on all the remaining days. A Kato convertor was used to convert to AC power ✓

D. TIDE AND CURRENT STATIONS

The tide station used for control on this survey was a portable automatic tide gage, located at the northern end of Starboard Island. Lat. 44-36-25' Long. 67-23.28' ✓

Data for reduction of soundings were taken directly from the station records without time or range corrections. ✓

There were no current stations within the limits of this survey.

E. SMOOTH SHEET

The smooth sheet projection was made in the Washington Office by a projection ruling machine. The shoreline and signals were transferred in the usual manner and were verified in accordance with 757 of the Hydrographic Manual. ✓

F. CONTROL STATIONS

The following triangulation stations were used for this survey: ✓

<u>Station</u>	<u>G.P. Vol. & Page</u>	<u>Chief of Party</u> ✓
<u>Fletcher</u> , 1882-1959	194	C. H. B.
<u>Ackley</u> , 1882-1959	192	C. H. B.
<u>Howard</u> , 1859-1959	4	-

Appendix B of this report contains a complete list of control used.

The triangulation station Howard and the photo-hydro station SPY ✓ were off the limits of the smooth sheet. These signals were plotted on a temporary dog-ear. Each one was used only twice.

G. SHORELINE AND TOPOGRAPHY

The shoreline and topographic details were transferred from the ✓ following photographic manuscripts, using standard methods:

T-8795 N/2	T-8796 S/2
T-8795 S/2	T-8799 N/2
T-8796 N/2	T-8800

In many instances the low-water line could not be delineated due ✓ to the extremely steep slopes. Examples of the situation are: Easterly shore of Round Island Lat: $44^{\circ}-40.5$, Long: $67^{\circ}-21.2$, Easterly shore of Salt Island Lat: $44^{\circ}-40.5$, Long: $67^{\circ}-21.7$, Avery Rock Lat: $44^{\circ}-39.2$, Long: $67^{\circ}-20.6$, Southern and easterly shores of Yellowhead Lat: $44^{\circ}-38.6$, Long: $67^{\circ}-21.5$. In these instances it is adequate to assume that the high water line is nearly vertical above the low water line.

In the areas in the vicinity of Hog Island Lat: $44^{\circ}-4.5$, Long: ✓ $67^{\circ}-20.7$ and along the southeastly shore of Howard Point Lat: $44^{\circ}-37.5$ Long $67^{\circ}-22.5$ the low water line could not be delineated accurately because of the treacherous rocky bottom. To the south of Hog Island the low water line was drawn to encircle the entire group of rocks in the interest of safety. To the north of Hog Island, the low water line could not be drawn due also to the irregularity of the bottom. In this case it was necessary to use the six (6) foot curve to enclose the dangerous area.

H. SOUNDINGS

All soundings were taken with EDO 255C depth recorders numbers ✓ 15 and 16. A sounding pole was used in shoal water and a hand lead line was used on some detached positions locating ~~SUNKEN~~ ^{SUNKEN} rocks. Both

depth recorders were operated at a frequency of 60.5 cycles per second ✓ and all bar checks were taken at ~~the~~ this frequency. There were marked differences in the bar checks at several points and as a result the following breakdown was used: Average of bar checks from 19 May to 29 July were taken and applied for that period and another set of averages from the bar checks taken during August was taken and applied for that period.

Phase corrections for the period from 19 May to 9 July were ✓ averaged and applied and another average was applied for the period between 15 July and 14 August. Bar checks taken on 11 and 12 June were rejected because of a miscalibrated bar.

CORRECTIONS IN FEET, ~~FATHOMS~~
 Depth Recorder - EDO 255 C

VELOCITY CORRECTIONS
 U.S. Coast and Geodetic Survey
 Ship ECFP Launch CS-183
 Howard S. Cole, Cdr. Comdg.
 These corrections are to be used
 between May 1959 and August 1959
 in the locality Machias Bay, Maine
 for hydrographic surveys Nos. H 8482
 (ECFP-1259)

May, 1959 "a" day thru "g" day

"A" Scale	Depth (ft.)	Corr. (ft.)
	0.0 to 33.0	0.0
	33.1 to 41.0	+0.2
	41.1 to 49.0	0.0
	49.1 to deepest	+0.2
"B" Scale	All Depths	+0.2

June, 1959 "h" day thru "l" day

"A" Scale	All Depths	0.0
-----------	------------	-----

July, 1959 "u" day thru "fa" day

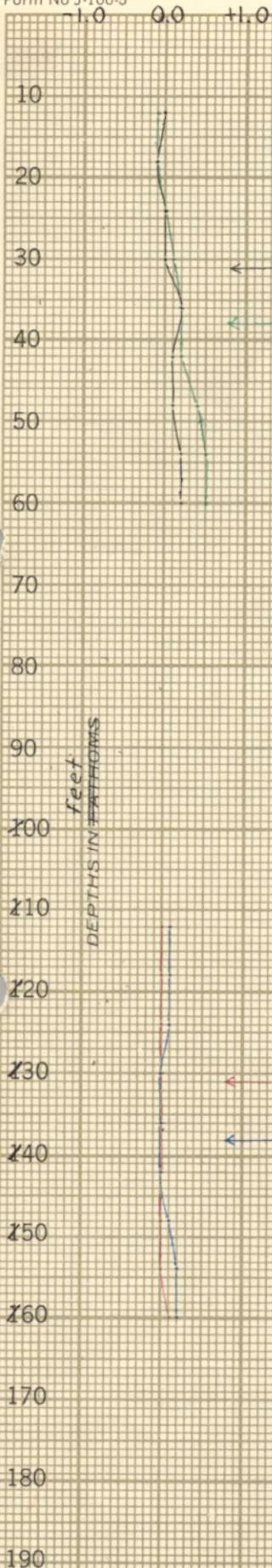
"A" Scale	0.0 to 49.0	0.0
	49.1 to deepest	+0.2
"B" Scale	All Depths	+0.4

August, 1959 "ga" thru "qa" day

"A" Scale	0.0 to 30.0	0.0
	30.1 to 45.0	+0.2
	45.1 to deepest	+0.4
"B" Scale	All Depths	+0.8

For deep water add a 0 to these figures)

feet
 DEPTHS IN FATHOMS



← May
 ← August

← June
 ← July

I. CONTROL OF HYDROGRAPHY

Horizontal control for this survey was by three point sextant fix ✓

as outlined in section 333 of the Hydrographic Manual and following applicable sections.

In the immediate vicinity to the south-east of Chance Island it was necessary to use a fix where the center object was elevated. This was done on position 14, 15, 16: ha day, volume 14, 4 August 1959. The angles taken on these positions were corrected in accordance with the formula in section 3338, page 221 and with the graph in Fig. 56, page 222 of the Hydrographic Manual. The vertical angles are recorded in the sounding volume. ✓

J. ADEQUACY OF SURVEY

This survey is complete and is considered adequate to supersede previous surveys. ✓

A ~~junction~~ ^{or 198} is made with ~~P~~ ^{Prior} Survey registry number 1686, 1885, ^H ~~1686, 1885,~~ ^{Not completed} scale 1:10,000 and with contemporary survey field number ECFP 1359, Machias River. Depth curves can be adequately drawn at these junctions. ✓

K. CROSSLINES

Crosslines in this survey constitutes approximately 10% of the total hydrography done. Favorable crossing were found. ✓

L. COMPARISON WITH PRIOR SURVEYS

A comparison with the following prior surveys were made and are found to be in general agreement with this survey. ✓

Registry No.	Year	Scale
1687	1885	1:10,000
1688	1885	1:10,000
1689	1886	1:10,000
1686	1885	1:10,000

M. COMPARISON WITH CHART

A comparison with C&GS Chart 304, scale 1:40,000 shows a general agreement of depth curves. ✓

The examination of the chart shows no important changes except for minor differences in the least depths on some sharp rocky shoals. These are listed in Appendix A of this report. ✓

A least depth of 17 feet was found in the entrance of the channel to the town of Machiasport in the vicinity of Lat 44°-40.65' Long:67°-21.25'. The charted least depth in this area is 20 feet. ✓

N. DANGERS AND SHOALS

A shoal of 14 feet was reported by a lobsterman at 44°-38.15' Long 67°-21.10'. This area was investigated on 29 May and 15 July by a special system of lines and drift soundings for approximately 20 minutes. There was no indication of a shoal in this area and the least depth found was 52 feet. ✓

Appendix A of this report contains a list of all charted dangers and the least depths found. Also in this appendix is a list of rocks transferred to the smooth sheet from the photo manuscript. The rocky ledges were also transferred from the photo manuscript. These were penciled on the smooth sheet with a 2H pencil. This data transferred from the photo manuscripts was found as charted. ✓

O. COAST PILOT INFORMATION

The following change is required in the Coast Pilot. Change line 30, page 152 to read - - - - has a depth of 28 feet.

P. AIDS TO NAVIGATION

The following is a list of floating aids to navigation within the limits of this survey: ✓

Buoy Name	Lat. & Long.	Depth	Vol., Page & Day	Date	Light List Page
Avery Rock	44°-39.21' ✓	50 feet ✓	Vol. 10 page 329 97v 15a	18 May 16 June	18
Bell Buoy No. "4"	67°-20.75' ✓				
<i>Dogfish Rocks</i>					
Can Buoy No. "3"	44°-37.79' ✓ 67°-18.21' ✓ 16	29 ✓	vol. 16 ✓ page 32 8pa	21 Aug ✓	18
<i>Machias River</i>					
Can Buoy No. "5"	44°-40.63' ✓ 67°-21.25' ✓	21 ✓	vol. 16 ✓ page 31 2pa	21 Aug ✓	18
<i>Machias River</i>					
Can Buoy No. "7"	44°-40.79' ✓ 67°-21.87' ✓	40 ✓	Vol. 16 ✓ Page 31	21 Aug ✓	18
<i>Seashore Ledge</i>					
Buoy No. "3"	44° 37.15' ✓ 67° 21.72' ✓	54	lpa Vol. 1, Page 5	30 June	

The following is a list of fixed aids to navigation with the limits of this survey: (Form 567 attached to this report)

Avery Rock Light	44-39.25' ✓ 67-20.68' ✓				18(98)
------------------	----------------------------	--	--	--	--------

There is one mooring buoy within the limits of this survey

Mooring Buoy	44-38.63' ✓ 67-21.36' ✓	10 ✓	Vol. 10 ✓ page 33 97v	6 July ✓	-
--------------	----------------------------	------	-----------------------------	----------	---

Q. LANDMARKS FOR CHARTS

There are no new landmarks for charts to report. ✓

R. GEOGRAPHIC NAMES

There are no new geographic names to report. ✓

S. SILTED AREA

None, mouth of Machias River

T. MISCELLANEOUS

A pier is under construction at Lat: 44-38.48, Long: 67-17.78 shown by pos. 69 - 70 da day vol. 13 page 53-54, 21 July. At this time the pier extended only to the MLW line. Since it will serve for the Naval Installation at Cutler it will probably be extended into deep water.

See Review Paragraph. 7-A-B 7B 80

George L. Fernandes
George L. Fernandes
Cartographer C&GS

APPENDIX ATTACHMENTS

- A. DANGERS AND SHOALS
- B. LIST OF CONTROL STATIONS
- C. STATISTICS
- D. ABSTRACT OF FATHOMETER CORRECTIONS
- E. TIDAL NOTES
- F. FATHOMETER REPORT
- G. APPROVAL SHEET

APPENDIX A
DANGERS AND SHOALS

Special Investigations from Preliminary Review

No.	Lat. & Long.	Vol.	Pos. No.	Date	Charted Old Depth	New Depth	Recommendations and Remarks
1.	44° 38.86' ✓ 67° 21.99' ✓	12 ✓	29z ✓	15 July ✓	10 ft. ✓	8 ft. ✓	Chart new depth
2.	44° 38.67' ✓ 67° 21.42' ✓	12 ✓	30z ✓	15 July ✓	3 ft. ✓	rock awash ✓	Chart new depth
3.	44° 37.92' ✓ 67° 21.01' ✓	3 ✓	10g ✓	29 May ✓	31 ft. ✓	28 ft. ✓	Chart new depth
4.	44° 39.14' ✓ 67° 18.39' ✓	15 ✓	45ka ✓	7 Aug. ✓	7 ft. ✓	* covered 1 ft. at MLW rock awash ✓	Chart new depth
5.	44° 39.10' ✓ 67° 18.95' ✓	12 ✓	61z ✓	15 July ✓	20 ft. ✓	20 ft. ✓	
6.	44° 38.94' ✓ 67° 19.04' ✓	12 ✓	7aa ✓	16 July ✓	17 ft. ✓	¹⁷ 15 ft. ✓	Chart new depth
7.	44° 38.57' ✓ 67° 18.60' ✓	11 ✓	14ly ✓	9 July ✓	17 ft. ✓	13 ft. ✓	Chart new depth
8.	44° 37.89' ✓ 67° 18.36' ✓	11 ✓	107y ✓	9 July ✓	24 ft. ✓	22 ft. ✓	Chart new depth
9.	44° 37.60' ✓ 67° 18.34' ✓	4 ✓	18h ✓	2 June ✓	18 ft. ✓	12 ft. ✓	12 ft. sounding plots 100 meters S x W of previous 18 ft. position.
10.	44° 37.35' ✓ 67° 18.75' ✓	16 ✓	95ma ✓ 96ma	14 Aug. ✓	12 ft. ✓	9 ft. ✓	9 ft. sounding plots 120 meters SW OF PREVIOUS 12 ft. sounding.
11.	44° 39.42' ✓ 67° 19.42' ✓	12 ✓	60aa ✓	16 July ✓	5 ft. ✓	5 ft. ✓	
12.	44° 39.44' ✓ 67° 19.80' ✓	6 ✓	1n ✓	12 June ✓	rock ✓ bares 3 ft. at MLW	Same	

APPENDIX A
(Continued)

DANGERS AND SHOALS

Special Investigations from Preliminary Review

No.	Lat. & Long.	Vol.	Pos. No.	Date	Old Depth	New Depth	Recommendations and Remarks
13.	44° 38.14' ✓ 67° 21.10' ₄ ✓	12 ✓	38z ✓	15 July ✓	-	52 ft. ✓	Reported 14 ft. ✓ sounding not found.
14.	44° 41.37' ✓ 67° 20.58' ₄ ✓	3 ✓	7f ✓	28 May ✓	-	16 ft. ✓	10 ft. sounding ^{15 meters} W x N of this investigated.

Items not listed under Preliminary Review

15.	44° 38.55' ✓ 67° 21.55' ₆ ✓	15 ✓	541a ✓	13 Aug. ✓	-	25 ft. ✓	Chart new depth
16.	44° 38.53' ✓ 67° 21.43' ₂ ✓	15 ✓	521a ✓	13 Aug. ✓	-	rock ⁽³⁾ awash	Plot on chart
17.	44° 38.56' ✓ 67° 21.42' ✓	15 ✓	531a ✓	13 Aug. ✓	-	rock * ⁽²⁾ awash	Should be charted
18.	44° 38.73' ✓ 67° 18.77' ₁₈ ✓	14 ✓	37ea ✓	28 July ✓	6 ft.	5 ft. ✓	Chart new depth
19.	44° 41.86' ✓ 67° 20.20' ₃ ✓	12 ✓	19ba ✓	17 July ✓	5 ft.	3 ft. ✓	Chart new depth
20.	44° 41.65' ✓ 67° 19.60' ₅₉ ✓	16 ✓	3,4,5qa ✓	24 Aug. ✓		rocks awash * ⁽²⁾	
21.	44° 41.70' ✓ 67° 19.60' ✓	16 ✓	6qa ✓	24 Aug. ✓		rock, bares 1 ft. * ⁽¹⁾	
22.	44° 41.70' ✓ 67° 19.60' ✓	16 ✓	7qa ✓	24 Aug. ✓		rock, bares 2 ft. * ⁽²⁾	
23.	44° 37.81' ✓ 67° 21.85' ₇ ✓	16 ✓	8qa ✓	24 Aug. ✓		sunken rock 3 ft. ✓	Should be charted
24.	44° 40.12' ✓ 67° 21.76' ✓	16 ✓	9qa ✓	24 Aug. ✓		rock, bares 4 ft. * ⁽³⁾	

APPENDIX A
(Continued)

DANGERS AND SHOALS

No.	Lat. & Long.	Vol.	Pos. No.	Date	Depth	Remarks
25. ✓	44° 40.18' ✓ 67° 21.90'	16 ✓	10qa ✓	24 Aug. ✓	rock, bares 6 ft. * ⁽⁶⁾	on chart
26. ✓	44° 40.18' ✓ 67° 21.92' ✓	16 ✓	11qa ✓	24 Aug. ✓	rock, bares 4 ft. * ⁽³⁾	on chart
✓ 27. ✓	44° 40.22' ✓ 67° 22.65' ✓	16 ✓	12qa ✓	24 Aug. ✓	rock, bares 4 ft. * ⁽³⁾	on chart
28. ✓	44° 37.38' ✓ 67° 18.39' ✓	16 ✓	54ma ✓	14 Aug. ✓	rock *	on charted reef
29. ✓	44° 37.55' ✓ 67° 18.05' ✓	16 ✓	84, 85, 86, 87, 88, 89ma ✓	14 Aug. ✓	Outlines edge of rock ledge.	now charted
30. ✓	44° 39.65' ✓ 67° 19.97' ✓	16 ✓	1qa ✓	24 Aug. ✓	rock awash * ⁽²⁾	close to charted rock
31. ✓	44° 39.68' ✓ 67° 19.95' ✓	16 ✓	2qa ✓	24 Aug. ✓	rock awash * ⁽²⁾	on chart
32. ✓	44° 41.42' ✓ 67° 20.54' ✓	3 ✓	24f ✓	28 May ✓	sunken rock 4 ft. depth ^{4Rk}	Chart shows 10 ft. Chart new depth <i>not critical</i>
33. ✓	44° 41.38' ✓ 67° 20.17' ✓	6 ✓	2n ✓	12 June ✓	sunken rock 4 ft. depth ^{4Rk}	Chart shows awash Chart new depth <i>not critical</i>
34. ✓	44° 41.39' ✓ 67° 20.20' ✓	6 ✓	3n ✓	12 June ✓	sunken rock 5 ft. depth ^{5Rk}	Chart shows awash Chart new depth <i>not critical</i>
35.	44° 39.82' ✓ 67° 22.51' ✓	13 ✓	25ca ✓	20 July ✓	^{Rk} * <i>not critical</i>	Transferred from photo- manuscript T-8795 S/2

APPENDIX A
(Continued)

DANGERS AND SHOALS

NO6	Lat. & Long.	Vol.	Pos. No.	Date	Depth	Remarks
36. ✓	44° 41.32' ✓ 67° 20.28'	6 ✓	4n ✓	12 June ✓	sunken rock 3 ft. depth	^{3RK} Chart shows awash not critical
37. ✓	44° 41.37' ✓ 67° 20.28'	6 ✓	5n ✓	12 June ✓	sunken rock 3 ft. depth	^{3RK} Chart shows bare not critical
38. ✓	44° 41.87' ✓ 67° 20.17' ✓	6 ✓	6n ✓	12 June ✓	sunken rock 2 ft. depth	^{2RK} Chart shows awash close to charted +
39. ✓	44° 38.61' ✓ 67° 21.38'	12 ✓	37z ✓	15 July ✓	rock awash *	Covered 1 ft at MLW Same on chart now charted
40. ✓	44° 39.68' ✓ 67° 19.98'	12 ✓	85aa ✓	16 July.. ✓	rock, bares 1 ft.	* (1) at MLW Chart shows same close to charted *
41. ✓	44° 39.69' ✓ 67° 19.95'	12 ✓	86aa ✓	16 July ✓	rock, bares 1 ft.	* (2) at MLW Chart shows same close to charted *
42. ✓	44° 39.74' ✓ 67° 22.35' ✓	14 ✓	10fa ✓	29 July ✓	rock, bares 25 ft.	^{G (2)} at MHW Chart same added above MHW 12 "
43. ✓	44° 38.95' ✓ 67° 19.74'	14 ✓	112ga ✓	3 Aug. ✓	two rocks bares 21 ft.	* (2) Chart same On 45482 as * (12). Shown bare at MHW bare at MHW (8) feet
44. ✓	44° 39.12' ✓ 67° 21.71' ✓	10 ✓	54x ✓	8 July ✓	Pile, bares 34 ft.	at MHW 2-16-61
45. ✓	44° 39.31' ✓ 67° 18.51'	9 ✓	70t ✓	30 June ✓	Piling, bares 3 ft.	at MHW added to chart
46. ✓	44° 38.23' ✓ 67° 22.33' ✓	10 ✓	17w ✓	7 July ✓	Piling, bares 31 ft.	at MHW "
47. ✓	44° 38.27' ✓ 67° 22.38' ✓	10 ✓	18w ✓	7 July ✓	Piling, bares 31 ft.	at MHW "
48. ✓	44° 39.93' ✓ 67° 19.96'	7 ✓	60,61r ✓	25 June ✓	Stakes	"
49. ✓	44° 39.32' ✓ 67° 18.50'	9 ✓	71t ✓	30 June ✓	Stakes, bares 8 ft.	at MHW omit. Close to #46

APPENDIX A
(Continued)

DANGERS AND SHOALS

No.	Lat. & Long.	Vol.	Pos. No.	Date	Depth and Remarks
50. ✓	44° 39.45' ✓ 67° 22.30' ₂₈	1 ✓	47c ✓	25 May ✓	Stakes bare 5 ft. <i>Added to chart at MHW</i>
51. ✓	44° 38.38' ✓ 67° 17.80'	4 ✓	48j ✓	4 June ✓	Stake bare 1 ft. at MHW
52. ✓	44° 38.67' ✓ 67° 22.35' ⁶	14 ✓	11fa ✓	29 July ✓	Wreck ✓ 12 <i>on chart</i>
53. ✓	44° 39.13' ✓ 67° 18.38'	12 ✓	34aa ✓	16 July ✓	1 ftl shoal <i>* covered 1 ft at MLW</i> (special investigation) <i>charted as *</i>

FISH WEIRS *not applied to chart*

1. ✓	44° 39.18' ✓ 67° 21.95' ✓	10 ✓	1,2,3,4,5,w ✓	7 July ✓	
2. ✓	44° 38.32' ✓ 67° 22.15' ✓	10 ✓	6,7,8,9,10,11,12w ✓	7 July ✓	
3. ✓	44° 38.17' ✓ 67° 22.00' ✓	10 ✓	1,2,3,4,5x ✓	8 July ✓	
4. ✓	44° 38.98' ✓ 67° 22.12' ✓	12 ✓	12,13,14,15,16z ✓	15 July ✓	
5. ✓	44° 41.95' ✓ 67° 20.60' ₃	1 ✓	3,5,6,7,8,9a ✓	18 May ✓	
6. ✓	44° 39.89' ✓ 67° 21.95' ²⁹ ✓	1 ✓	3,4,5,c ✓	25 May ✓	
7. ✓	44° 39.45' ✓ 67° 22.05' ✓	1 ✓	6,7,8,9c ✓	25 May ✓	
8. ✓	44° 39.85' ✓ 67° 22.35' ✓	1 ✓	10,11,12,13c ✓	25 May ✓	
9. ✓	44° 39.33' ✓ 67° 18.55' ✓	9 ✓	72,73,74t ✓	30 June ✓	

APPENDIX A
(Continued)

DANGERS AND SHOALS

The following rocks were transferred from the photo-manuscripts.

	<u>Lat.</u>	<u>Long.</u>	<u>Manuscript</u>
1. ✓	44° 40.51' ✓	67° 22.70' ✓	T-8795 S/2 ✓
2. ✓	44° 40.47' ✓	67° 22.71' ✓	T-8795 S/2 ✓
3. ✓	44° 40.38' ✓	67° 22.80' ✓	T-8795 S/2 ✓
4. ✓	44° 40.36' ✓	67° 22.83' ✓	T-8795 S/2 ✓
5. ✓	44° 40.36' ✓	67° 22.65' ✓	T-8795 S/2 ✓
6. ✓	44° 40.20' ✓	67° 22.71' ✓	T-8795 S/2 ✓
7. ✓	44° 39.95' ✓	67° 22.83' ✓	T-8795 S/2 ✓
8. ✓	44° 39.91' ✓	67° 22.82' ✓	T-8795 S/2 ✓
9. ✓	44° 40.02' ✓	67° 23.21' ✓	T-8795 S/2 ✓
10. ✓	44° 39.83' ✓	67° 22.52' ✓	T-8795 S/2 ✓
11. ✓	44° 40.24' ✓	67° 23.33' ✓	T-8795 S/2 ✓
12. ✓	44° 40.72' ✓	67° 20.29' ✓	T-8796 S/2 ✓ (Group of three rocks)
13. ✓	44° 39.59' ✓	67° 19.36' ✓	T-8796 S/2 ✓
14. ✓	44° 38.69' ✓	67° 21.67' ✓	T-8796 S/2 ✓
15. ✓	44° 38.77' ✓	67° 22.51' ✓	T-8795 S/2 ✓
16. ✓	44° 38.81' ✓	67° 22.57' ✓	T-8795 S/2 ✓
17. ✓	44° 37.68' ✓	67° 18.16' ✓	T-8796 S/2 ✓
18. ✓	44° 38.88' ✓	67° 21.40' ✓	T-8796 S/2 ✓
19. ✓	44° 38.86' ✓	67° 21.39' ✓	T-8796 S/2 ✓
20. ✓	44° 38.84' ✓	67° 21.38' ✓	T-8796 S/2 ✓
21. ✓	44° 38.80' ✓	67° 21.41' ✓	T-8796 S/2 ✓
22. ✓	44° 38.33' ✓	67° 22.82' ✓	T-8795 S/2 ✓
23. ✓	44° 38.34' ✓	67° 22.88' ✓	T-8795 S/2 ✓
24. ✓	44° 38.31' ✓	67° 22.90' ✓	T-8795 S/2 ✓

APPENDIX B

LIST OF CONTROL STATIONS

TRIANGULATION STATIONS

<u>SIGNAL</u>	<u>ORIGIN</u>	<u>MANUSCRIPT</u>
ACK	ACKLEY, 1882-1959	
ARD	HOWARD, 1859-1959	
LET	FLETCHER, 1882-1959	

MARKED TOPOGRAPHIC STATIONS

BUK	BUCK, 1946-1959	T-8796 S/2
ELL	YELL, 1946-1959	T-8796 S/2
IAM	CLAM, 1946-59	T-8796 S/2
IVY	GIVE, 1946-59	T-8796 S/2
NEC	NECK, 1946-59	T-8796 S/2
QUO	HARE, 1946	T-8800
REE	FREE, 1946	T-8795 S/2
ROC	ROCK, 1946-59	T-8796 S/2
WAR	DILL, 1946	T-8799 N/2
WOO	THOR, 1946-59	T-8796 S/2

TOPOGRAPHIC STATIONS

ALT	SALT, 1946	T-8796 S/2
AVE	AVERY ROCK LIGHT, 1949	T-8796 S/2
BIT	CHIMNEY, 1946	T-8800 S/2
BUS	GABLE, 1946	T-8795 S/2
CHI	CHIMNEY, 1946	T-8796 N/2
GAB	GABLE, 1946	T-8796 N/2
NEY	CHIMNEY, 1946	T-8796 N/2
SPY	SPIRE, 1946	T-8795 N/2
SUE	GABLE, 1946	T-8796 S/2

PHOTO-HYDRO SIGNALS

<u>T-8795 S/2</u>		
EGO	HAG	PIN
GET	PRO	YES

Some signals on this hydro. sheet shown in green to indicate lesser degree of accuracy in position

APPENDIX B
(Continued)

LIST OF CONTROL STATIONS

PHOTOHYDRO SIGNALS

T-8796 N/2

AZO	DOC	BON	TOW
BAN	LEG	OIL	

T-8796 S/2

ABE	DIP	GAS	KEY	NOR	WAT
ACE	DIX	HAN	KIT	OHM	UMP
AND	DOG	HEL	LAY	RIG	YAM
BAG	FIL	HOP	LOW	RIP	
BON	FOE	HOW	LUX	SIS	
BUT	GAD	HUT	MAG	SOL	
CAB	GAM	IVE	MIC	TEE	
DAY	GAR	JAY	NOD	TIN	

HYDROGRAPHIC STATIONS

ONE	T-8800
RIR	T-8796 N/2

APPENDIX C

STATISTICS TO ACCOMPANY
 HYDROGRAPHIC SURVEY H-8482 (ECFP-1259)

DATE	VOL.	DAY	N.O.	D.P.	POSITIONS	NAUTICAL MILES
18 May	1	a	16		16	0.0
19 May	1	b	2		9	1.0
25 May	1	c	14		132	18.2
26 May	1 & 2	d	0		148	26.9
27 May	2 & 3	e	0		129	24.5
28 May	3	f	0		160	18.0
29 May	3	g	1		49	3.4
2 June	4	h	0		48	7.0
4 June	4	j	0		137	21.1
5 June	4 & 5	k	0		97	11.3
8 June	5	l	0		110	19.9
11 June	5 & 6	m	0		143	22.3
12 June	6	n	6		47	5.3
19 June	6	p	1		1	0.0
24 June	6 & 7	q	0		176	24.6
25 June	7 & 8	r	0		170	22.5
27 June	8	s	0		105	17.2
30 June	9	t	6		96	13.2
1 July	9 & 10	u	5		140	23.0
6 July	10	v	1		97	9.3
7 July	10	w	18		18	0.0
8 July	10 & 11	x	5		179	21.7
9 July	11	y	4		181	13.4
15 July	12	z	10		61	4.7
16 July	12	aa	5		121	10.4
17 July	12 & 13	ba	1		108	6.8
20 July	13	ca	0		77	5.4
21 July	13	da	0		89	6.0
28 July	13 & 14	ea	2		44	3.1.
29 July	14	fa	1		19	1.2
3 August	14	ga	1		115	7.0
4 August	14	ha	0		75	8.5
5 August	14 & 15	ja	0		120	12.9
7 August	15	ka	2		61	3.5
13 August	15	la	1		54	4.0
14 August	16	ma	8		96	6.7
19 August	16	na	6		6	0.0
21 August	16	pa	10		10	0.0
24 August	16	qa	12		12	0.0
TOTALS			138		3456	404.0

TOTAL NAUTICAL SQUARE MILES 12.5 Sq. miles

APPENDIX D

ABSTRACT OF FATHOMETER CORRECTIONS

HYDROGRAPHIC SURVEY H-8482 ⁽¹⁹⁵⁹⁾ (ECFP-1259)

<u>FATHOMETER DEPTH</u>		<u>FATHOMETER CORRECTION</u>
	"a" day thru "g" day	
	<u>"A" Scale</u>	
0.0 to 33.0 ft.		0.0
33.1 to 41.0 ft.		+0.2
41.1 to 49.0 ft.		0.0
49.1 and deeper		+0.2
	<u>"B" Scale</u>	
All Depths		+0.2
	"h" day thru "t" day	
	<u>"A" Scale</u>	
All Depths		0.0
	"u" day thru "fa" day	
	<u>"A" Scale</u>	
0.0 to 49.0 ft.		0.0
49.1 and deeper		+0.2
	<u>"B" Scale</u>	
All depths		+0.4
	"ga" day thru "qa" day	
	<u>"A" Scale</u>	
0.0 to 30.0 ft.		0.0
30.1 to 45.0 ft.		+0.2
45.1 and deeper		+0.4
	<u>"B" Scale</u>	
All depths		+0.8

APPENDIX E

TIDAL NOTES

HYDROGRAPHIC SURVEY H-8482 (1954) (ECFP-1259)

Soundings in this survey were reduced from tidal data taken from a portable tide gage located at the northern end of Starboard Island, Maine, Lat. $44^{\circ} 36.28'_{5}$, Long. $67^{\circ} 23.28'$.

The tides were applied directly with neither time nor height correction.

Mean low water corresponds to 1.5 ft. on the tide staff.

Tides were furnished from the Washington office for the following days :

19	August	1959	"na"	day
21	August	1959	"pa"	day
24	August	1959	"qa"	day

APPENDIX F

FATHOMETER REPORT

HYDROGRAPHIC SURVEY H-8482⁽¹⁹⁵⁹⁾ (ECFP-1259)

EDO 255C type depth recorders, serial numbers 15 and 16 were used to obtain soundings in depths deeper than 6 feet. Sounding poles were used in shoal water.

Transducers for the depth recorder were mounted through the hull. A Kato Converter was used as a source of power for the depth recorders. An input power frequency of 60.5 cycles was used for the entire survey.

Bar checks were taken daily to determine instrumental and velocity corrections.

APPENDIX G

APPROVAL SHEET TO ACCOMPANY

HYDROGRAPHIC SHEET H-8482⁽¹⁹⁵⁹⁾ (ECFP-1259)
PROJECT CS-408

The records, corrections, and all field and office work was supervised by commander Howard S. Cole. ✓

All soundings were taken with EDO 255C type depth recorders, serial numbers 15 & 16, a 12 foot sounding pole, and a hand lead line. ✓

The Descriptive Report was written by George L. Fernandes. ✓

The report and the records for this survey are complete and adequate to the best of my knowledge. ✓

Approved and forwarded,

John R. Plaggmier

John R. Plaggmier
LCDR., C&GS
Officer-in-charge, ECFP

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~

1 December 1960

Division of Charts: R.H. Carstens

Plane of reference approved in
16 volumes of sounding records for

HYDROGRAPHIC SHEET 8482

Locality Machias Bay, Maine

Chief of Party: H.S. Cole

Plane of reference is MEAN LOW WATER READING.
1.5 ft. on tide staff at Starboard Island Maine
12.6 ft. below B. M. 3 (1948)

Height of mean high water above plane of reference is: 12.4 ft.

Condition of records satisfactory except as noted below:

Burt W. Wilson

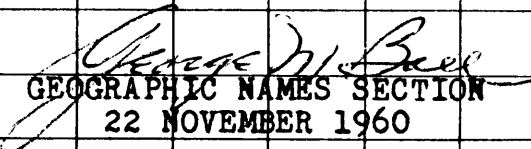
Chief, Tides and Currents Branch

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

GEOGRAPHIC NAMES

Survey No. H-8482

Name on Survey	304											
	A	B	C	D	E	F	G	H	K	SGN		
Bar Island	x											1
Bare Island	x											2
Birch Point	x											3
Bucks Harbor	x											4
Bucks Head	x											5
Change Island	x											6
Cross Island	x											7
Cross Island Narrows	x											8
Davis Beach	x											9
Grassy Point	x									x		10
Hog Island	x											11
Holmes Bay	x											12
Howard Point	x											13
Indian Cove	x											14
Larrabee Cove	x											15
Little Bay	x											16
Long Point	x											17
Machias Bay	x											18
Point Ruth	x											19
Round Island	x											20
Salt Island	x											21
Sprague Neck	x											22
Starboard Island (tide sta.)												23
Yellow Head	x									x		24
												25
												26
												27


 GEOGRAPHIC NAMES SECTION
 22 NOVEMBER 1960

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8482

Records accompanying survey: Smooth sheets .1...;
 boat sheets .1...; sounding vols. .16...; wire drag vols. .1...;
 Descriptive Reports .1...; graphic recorder envelopes .9...;
 special reports, etc. see also: T8795($\frac{4}{2}, \frac{5}{2}$) 8796($\frac{4}{2}, \frac{5}{2}$) 8799 8800 and
 vinyl copies, black lines thereof (used by hydro party) Photography of 1959 W 6752-88

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

Number of positions on sheet	3456
Number of positions checked	many
Number of positions revised	10%
Number of soundings revised (refers to depth only)	4200
Number of soundings erroneously spaced	100
Number of signals ^{poorly} erroneously plotted or transferred	26
Topographic details (foreshore)	Time much
Junctions	Time none
Verification of soundings from graphic record	Time much
Special adjustments	Time

Verification by Clarence Mifeldt Total time 615 Date 1/65

Reviewed by Dennis J. Romesburg Time 160 Date 10-27-71

Inspected: K. W. Wellman 6-3-76 59 hrs

C. Teas 13 hrs 7/30/76

Retain in Dk

Notes to Reviewer

F CONTROL STATIONS

Many of the marked, or described topographic stations of the photogrammetric survey (1946) differ in position on the boat sheet and smooth sheet, from those on the topographic surveys. The topographic surveys also includes many additional points, some described, that could have been used to construct signals thereon. Some of the stations on the hydrographic survey are nearby to these points. Examination of the vinylite copies of the topographic surveys indicate that the signal-building party crudely practiced some photogrammetric radial-line plotting. This is customary procedure to locate positions of signals not previously located....but to relocate topographic points and topographic stations by that procedure is absurd!

The lettering, color, and format of the station names were changed from the usual upper and lower case red to appropriate colors of red, green, blue and black; and format to indicate the source. Appendix B, thus indicates intention only, not accuracy of position.

G SHORELINE, TOPOGRAPHY, AND FORESHORE

The topographic surveys, source of the transferred shoreline, ledges, reefs and many rocks; was done photogrammetrically in 1946, employing a Metrogon Lens in the camera and Multiplex stereo-projectors that used reduced diapositives and anaglyphic filters. Resolution and brilliance was thus severely limited, and because of this and policy, ledges and reefs are generalized.

The hydrographic survey launch, at high tide, rode over these crevassed and pinnacled areas and left a trail of fathograms that indicated depths on ledges and reefs and minus depths in water. To resolve the discrepancies, the ledges, reefs and rocks were reworked for greater detail with the aid of 1959 photography (59W6752-88; 6753 is attached to the descriptive report).

To check this application, diapositives of this 1959 photography should be used on the Wild B-8 stereoplotters with adequate horizontal control to check the positions. At the same time, if the identification photographs of

the signal-building party can be found, these can be used as guides to relocating the station positions on the survey.

The black line copies of the topographic surveys contained revisions of shoreline and rocks. Neither the boat sheet nor smooth sheet had these applied. After checking with the 1959 photography; these, sometimes modified, were applied.

Ledge and sand symbols were added to the foreshore area to depict the type of bottom or beaching hazards and are the low water limits only if no zero curve is shown.

The hydrographic party usually indicated kelp only after they were at or above the low water line. To reduce the clutter, a general note was added instead of individual symbols.

Rocks awash upon ledges or reefs are assumed to be awash at MHW unless elevations are given; these are then high points of the reef.

H SOUNDINGS

As the EDO depth recorder was used, the initial was a wide band of about six foot width. This obscures any trace above eight feet below water level. Depth by pole was obtained in a few of these areas but most of the depths in this range could be one to three feet shallower.

Bar checks were averaged to produce the corrections in the sounding volumes. There is a wide variation among individual and daily bar checks and these can be far from the applied average (see DA bar checks.)

With a thirteen foot range of tide, some minus depths are shown on reefs and wide ledges. Most of these depths result from a chance pass across the area and are not necessarily the least depths.

1/2 fractions were added to both sides of the low water line and to the deeper side of curves to improve the delineation.

Soundings along the lines were reselected and moved to indicate least depths and greatest depths (CA). Many soundings were shaded a few tenths of a foot to emphasize change in gradient and to smooth level areas.

With high water thirteen feet above the developed low water line; boats, common to the area, and especially, small-craft could go far above the low water line. The northeastern end of Holmes Bay with its clam factory (AZO) and pier or dock (?) is especially underdeveloped.

Depths on many rocks and reefs are from accidental traverses and not from systematic investigations. Least depths could be less!

I CONTROL OF HYDROGRAPHY

Considerable office hydrography was applied to eliminate many fixes plotted on time and course and to improve other fixes. The along-shore line at Cross Island is a sad example of what rote can do.

Many observations were across four miles of water. Fog, haze, and diminutive signals can make images uncertain; then plotting these with inaccurate long-arm protractors across wide expanses of unstable paper can change the positioning of these fixes from a geometric exercise to a reckoning process. These fixes are usually near shore where even a short distance, or swing, can profoundly alter the curves along the steep gradients. This procedure was frequently complicated when the sum of both angles was less than thirty degrees.

J ADEQUACY OF SURVEY

This survey is substandard in accuracy of positions and depths but is adequate to supercede the previous surveys (1885).

With many stations of 2 mm probable error the accuracy of the fixes can vary through a wide range. Long shots and narrow angles compound the weaknesses.

Bar checks of some dates, at some depths, varied a foot from the applied average; and a consistent and parallel

difference in applied depths of superimposed portions of different day's sounding lines, indicating a greater range and later time of tides at the head of the bay than at Starboard Island, outside Machias Bay; result in a probably error of ± 2 feet.

The wide initial band of the fathograms obliterates any trace above eight foot depth, confusion between boulders, kelp and strays in shoals, and no bar check or other check of the fathometer error at shoal depths; can easily add another ± 3 feet error to the general error.

Revisions of fixes are pin holes within or adjacent to the corresponding depth. The original inked holes are usually within a few millimeters and are impossible to erase.

Items for Future Presurvey Reviews

1. The shoaling tendency of the channel at the mouth of the Machias River is expected to continue.
2. Because of the tremendous increases in recreational boating over the past few years and its expected future boom and because of the wide range of tide in this area (12.4 feet), it would have been advantageous to survey many of the small coves and bays at high tide as many of these small pleasure craft and possibly small commercial fishing vessels would probably find such information beneficial.
3. The two 29-foot soundings retained on the present survey in the vicinity of latitude 44°37.20', longitude 67°22.15' from H-1686 (1885) should be investigated and verified or disproved.

<u>Position Index</u>		<u>Bottom Change</u>	<u>Use</u>	<u>Resurvey</u>
<u>Lat.</u>	<u>Long.</u>	<u>Index</u>	<u>Index</u>	<u>Cycle</u>
444	0673	2	1	50 years
444	0672	3	1	50 years
443	0673	3	1	50 years
443	0672	3	1	50 years

OFFICE OF MARINE SURVEYS AND MAPS

MARINE SURVEYS DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8482

FIELD NO. ECFP-1259

Maine, Gulf of Maine, Machias Bay

SURVEYED: May 18 - August 24, 1959

SCALE: 1:10,000

PROJECT NO.: CS-408

SOUNDINGS: EDO Depth Recorders
Sounding Pole, Hand Lead

CONTROL: Sextant Angles on
Shore Signals

Chief of Party H. S. Cole
Surveyed by P. L. Rotondo
Automated Plot by Gerber Digital Plotter
Verified by C. Misfeldt
Reviewed by D. J. Romesburg
Date: October 27, 1971
Inspected by K. W. Wellman

1. Description of the Area

This survey covers Machias Bay, Maine, north of latitude 44°37' and east of longitude 67°23'. Machias Bay is characterized by many scattered islands and islets, each of which possesses ledges and reefs that are usually fringed with kelp. The irregular, rocky bottom is covered by a sticky brown mud, found predominately in the greater depths and in the shallow flat areas. The survey areas which bare at mean low water are generally rock ledges or flat, rocky areas covered by sand or kelp and strewn with boulders. A few isolated bottom samples of broken shells were found and numerous rock pinnacles and boulders rise from the bottom throughout the survey area. On the northwest the channel from the Machias River extends through broad flats covered by 1 to 8 feet. The 18-foot curve appears to be encroaching into the river channel in the vicinity of latitude 44°40.66', longitude 67°21.30' thereby indicating a future controlling depth of 18 feet or less at the channel entrance. Depths vary from alongshore flats that bare several feet at mean low water in the northern reaches of Machias Bay to depths of 79-80 feet on the southern limits of the survey.

2. Control and Shoreline

The control is adequately described in section F of the Descriptive Report.

The shoreline originates with the final reviewed topographic manuscripts T-8795 N/2, T-8795 S/2, and T-8799 N/2 of 1944-49, plus T-8796 N/2, T-8796 S/2, and T-8800 of 1946-49. Some shoreline, reef, and rock information differs from the reviewed T-sheets because of revisions made by the hydrographer on the black-line copies of the T-sheets (unavailable at time of review and inspection) and revisions determined by examining 1959 aerial photographs of the survey area. The black-line copies of the T-sheets are lost. Smooth sheet topographic information at variance with the T-sheets was retained inasmuch as it is considered to be the only extant indication of topographic changes subsequent to the date of the reviewed T-sheets. Elevations of reefs and rocks awash were retained from the original topographic surveys where this information was not in conflict with the smooth sheet plot.

At the position of the rock awash in latitude $44^{\circ}37.81'$, longitude $67^{\circ}21.87'$ (T-8796 S/2) the hydrographer obtained a least depth of 3 feet at approximate mean low water; i.e., 1 foot of tide. On this basis the rock awash was revised to 3 Rk on the smooth sheet.

3. Hydrography

A. Depths at crossings are in good agreement.

B. The usual depth curves are adequately delineated, except in a few areas where soundings have been carried forward from the prior surveys to aid in fixing the positions of the curves. A few dashed and brown supplemental depth curves were added to emphasize isolated features. The accurate delineation of the low water line was hampered by the irregular reefs and numerous boulders along the shoreline. In many instances the reef symbol was used to denote the approximate low water line in these rugged areas.

C. The development of the bottom configuration and the investigation of least depths are considered adequate.

4. Condition of the Survey

The field plotting, sounding records, and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual. However, in the transfer of topographic shoreline detail, sanded areas were unnecessarily shown rather than a dotted low water line.

During field work, Presurvey Review Item No. 14 was not adequately investigated. This necessitated the retention of two 29-foot soundings from H-1686 (1885) in the vicinity of latitude $44^{\circ}37.20'$, longitude $67^{\circ}22.15'$.

5. Junctions

The junction with H-9503 (1959) on the northwest will be considered in the review of that survey. Present depths are in harmony with charted depths at the project limit on the south.

6. Comparison with Prior Surveys

H-1686	(1885)	1:10,000
H-1687	(1885)	1:10,000
H-1688	(1885)	1:10,000
H-1689	(1885)	1:10,000

These prior surveys, taken together, cover the area of the present survey. The character of the bottom in the area is stable and general agreement between the present and prior surveys is within 1 to 3 feet. Isolated instances of greater depth differences are attributed to errors in recording and/or plotting on the prior surveys. For example, a 53-foot sounding from H-1688 (1885) positioned in latitude $44^{\circ}38.86'$, longitude $67^{\circ}18.84'$ appears to be in error by 18 feet. The sounding numbers are apparently transposed as the remaining depths in this area on the prior survey and the depths on the present survey show 30 to 37 feet. Other changes can be attributed to natural causes, notably in the area of the Machias River channel. Maximum prior depths in the channel were 55 to 56 feet, while maximum depths presently recorded are 45 feet. Also, the irregular configuration of the bottom can cause some soundings to appear erroneous.

In latitude $44^{\circ}40.66'$, longitude $67^{\circ}21.30'$ a small shoal as indicated by the 18-foot curve is accreting into the river channel. Slight differences in depth curve delineations are noticeable, especially in the low water line in the vicinity of Randall Point Flats where it has receded an average of 350 meters from its prior location.

Several soundings were brought forward to the present survey to provide least depths on isolated features and to help fix the depth curve delineations of certain features in the survey area.

With the addition of these soundings, the present survey is adequate to supersede the prior surveys within the common area.

7. Comparison with Chart 304 (latest print date, 7th Ed., 10/10/70)

A. Hydrography

The charted hydrography originates with the previously discussed prior surveys which require no further consideration plus partial application of depths from the verified smooth sheet of the present survey.

Attention is directed to the following:

(1) The rock awash (bares 1 foot at MLW) charted in latitude $44^{\circ}39.13'$, longitude $67^{\circ}18.40'$ originates with the verified smooth sheet of the present survey. The elevation of the rock was incorrectly shown on the verified smooth sheet. This rock is actually covered by 1 foot of water at MLW. It is recommended that the chart be revised to reflect the true nature of this item.

(2) The 5-foot sounding (Rk) charted in latitude $44^{\circ}38.74'$, longitude $67^{\circ}18.78'$ originates with the verified smooth sheet of the present survey. During the review process the least depth on this feature was revised to 4 feet. It is recommended that the chart be revised accordingly.

(3) The 17-foot sounding charted in latitude $44^{\circ}38.97'$, longitude $67^{\circ}19.04'$ originates with H-1688 (1885) and falls 50 meters northeast of its present survey location. The charted position of the 17-foot sounding should be changed to agree with the position on the present survey.

(4) The 58-foot sounding charted in latitude $44^{\circ}38.64'$, longitude $67^{\circ}21.73'$ originates with the verified smooth sheet of the present survey. The actual sounding recorded in this location on the present survey is 38 feet but it was apparently misinterpreted as a 58-foot sounding during subsequent chart processing. This 58-foot sounding should be corrected to 38 feet.

(5) The rock awash, uncovering 3 feet at mean low water, charted in latitude $44^{\circ}37.81'$, longitude $67^{\circ}21.88'$ originates with the verified smooth sheet of the present survey. During subsequent processing it was determined to be covered by 3 feet at mean low water. The chart should be revised accordingly.

(6) The elevation (1 foot above mean low water) of the reef charted in latitude $44^{\circ}40.31'$, longitude $67^{\circ}22.66'$ originates with the verified smooth sheet of the present survey. It was charted incorrectly, as the reef elevation depicted on the present survey is 7 feet above mean low water. It is recommended that the charted elevation be revised to concur with the present survey.

(7) The small islet charted in latitude $44^{\circ}38.64'$, longitude $67^{\circ}21.37'$ originates with the verified smooth sheet of the present survey on which the word pile and a pile symbol were erroneously plotted in this position. Subsequent chart processing compounded the error when the word pile was deleted and the pile symbol was changed to a small islet complete with buff color. The small islet should be deleted from the chart.

(8) The pier charted in latitude $44^{\circ}38.49'$, longitude $67^{\circ}17.80'$ originates with Chart Letter 551 of 1960 subsequent to the date of the survey and should be retained on the chart.

(9) The rock awash charted in latitude $44^{\circ}41.23'$, longitude $67^{\circ}19.92'$ originates with a zero sanded spot on H-1687 (1885) and is not rock. The present survey adequately reveals the bottom. The rock awash should be deleted from the chart.

Except as noted above, the present survey is adequate to supersede the charted hydrography within the common area.

B. Aids to Navigation

The charted positions of aids to navigation adequately mark the features intended except that the charted position of buoy C"5" in latitude $44^{\circ}40.60'$, longitude $67^{\circ}21.27'$ falls in depths of about 11 feet on the present survey and would mark the channel more effectively if its position were established northeastly about 50 meters.

8. Compliance with Instructions

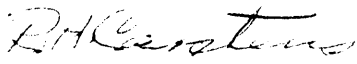
The survey adequately complies with the Project Instructions.

9. Additional Field Work

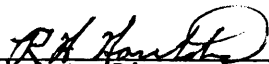
This survey is considered to be a very good basic survey and no additional hydrography is required.

During future work in the area the two 29-foot soundings carried forward to the present survey from H-1686 (1885) in the vicinity of latitude $44^{\circ}37.20'$, longitude $67^{\circ}22.15'$ should be investigated and verified or disproved.

Examined and Approved:



Chief
Marine Surveys Division



Associate Director
Office of Marine Surveys
and Maps

CGCS 26 JUL 59 W 675



67° 20'

Hydrography and Topography

STORM

The U.S. Weather Bureau
the following approximate
Machiasport (44° 41' 9")
Cross Island C.G. Star
Moose Peak C.G. Star

CAUTION

Temporary defects in
indicated on this chart
replaces a fixed aid

LOCAL MAGNETIC

An area of magnetic
about 4 miles south
Grand Manan

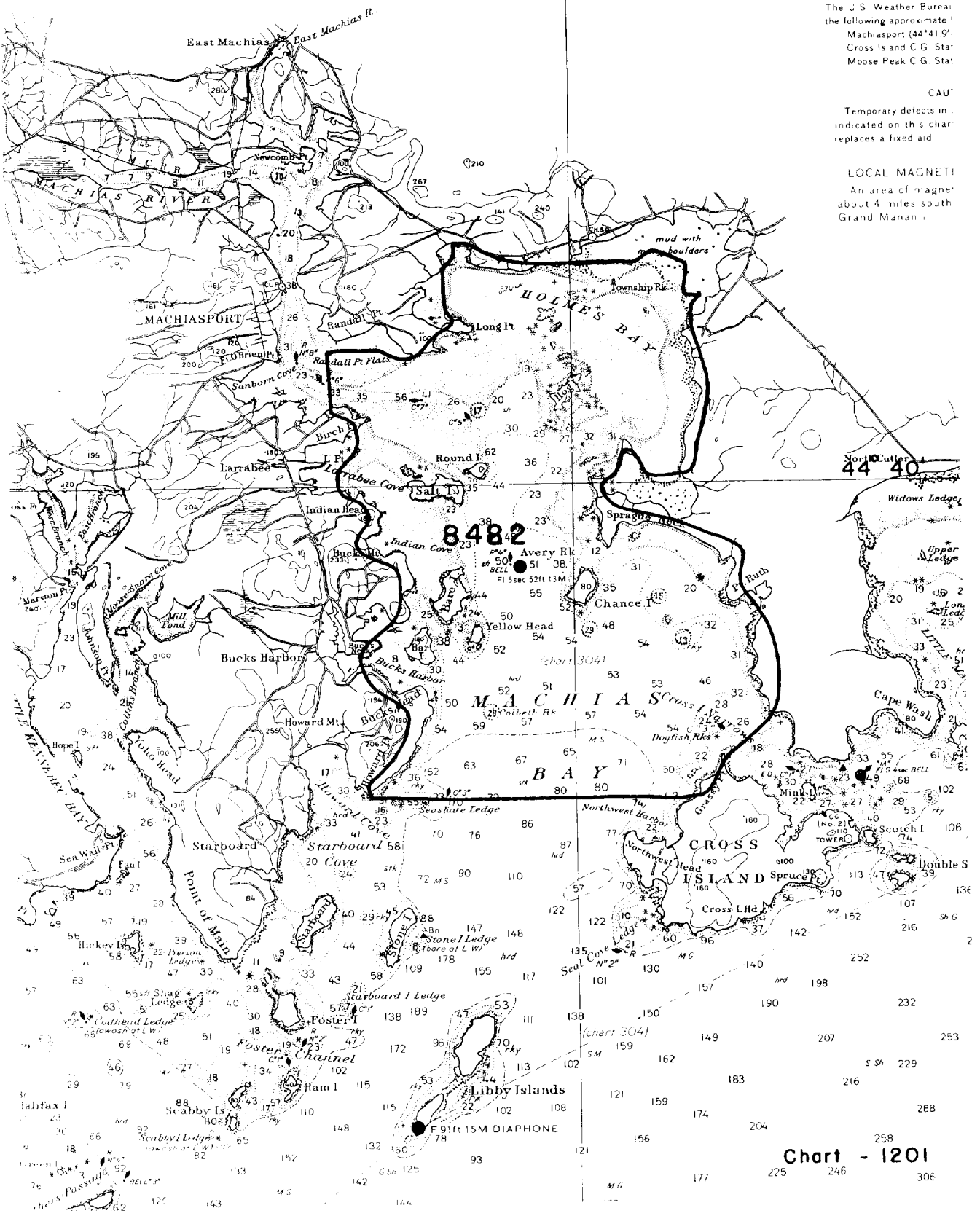


Chart - 1201

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8482

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
1/19/61	1000	E. Thomas	No Corr, Considered Completely applied until Before After Verification and Review Reconstruction.
2-16-61	304	J.M. Albert	add some sndgs, piles & stakes & rocks Before After Verification and Review
2-17-61	1201 #16	J.M.A.	Before After Verification and Review via 304
3-23-61	70	R.E. Elkins	Before After Verification and Review Partly applied thru chrt 1201 drg 16. No revision!
10-25-61	1106	R.E. Elkins	Before After Verification and Review Partly applied thru chart 1201 drg 16. No revision.
5-7-63	303	J. McMillan	Before After Verification and Review Partly applied Revised edge of curves thru chrt 304 drg 11.
5-7-65	304	G.R. Johnson	Before After Verification and ^{before} Review Partly Applied. Consider as full app'n except for review corr's.
12-9-65	1201 Reconstr.	G. R. Johnson	Before After Verification and ^{before} Review Partly Applied thru chrt 304, drg #14.
6-16-72	1000	J. Bailey	Before After Verification and Review before Inspect. prev. fully applied see first item above Exam. No critical corrections
8/8/73			Before After Verification and Review Before Inspect.
12-12-72	304	J. Bailey	Exam. for critical corr's. Added and revised several rocks and shoal sndgs.
12-13-72	1201	J. Bailey	AFTER REVIEW BEFORE INSPECTION Partly applied thru Drwg. 304 #16
12-13-72	1106	J. Bailey	AFTER REVIEW BEFORE INSPECTION Exam. for critical corr's. All corr Appt. thru Drwg. 1201 #22 No corr

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

