

# 8556

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. .... **WA-HI-2359**  
Office No. .... **H-8556**

### LOCALITY

State ..... **Maine**  
General Locality ..... **Gulf of Maine**  
Locality ..... **Mistake Island to Libby Islands**

19 **59-60**

### CHIEF OF PARTY

..... **J. R. Flaggner & D. G. Rushford**

### LIBRARY & ARCHIVES

DATE ..... **Jan. 29, 1962**

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.

~~H-8556~~  
REGISTER NO. ~~H-8557~~  
~~20-3-59 H-8556~~  
Field No. ~~20-1-60 H-8557~~

State MAINE

General locality GULF  
~~COAST OF MAINE~~

Locality Mistake I. to Libby Islands  
~~EAST OF FORT MANAN~~

Scale 1:20,000 Date of survey 2359 8/19/59 to 8/25/60 H-8556  
~~2360 7/21/60 to 8/25/60~~

Instructions dated 19 December 1958 OPR 408

Vessel WAINWRIGHT & HILGARD

Chief of party John R. Flaggner & Dewey G. Rushford

Surveyed by Dewey G. Rushford, John T. Maldari, G. H. Orr, D.I. Wolak  
John R. Flaggner, Vello Kink, Karl R. Anderson, Pat T. Redden,  
Robert A. Trumbull  
*at HKE*

Soundings taken by fathometer, ~~XXXXXXXXXXXXXXXXXXXX~~

Fathograms scaled by Personnel of WAINWRIGHT & HILGARD

Fathograms checked by Personnel of WAINWRIGHT & HILGARD

Protracted by ALPHA G. ATWILL (Norfolk Processing Office)

Soundings penciled by ALPHA G. ATWILL " " "

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

REMARKS:  
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DPR-408

DESCRIPTIVE REPORT

HYDROGRAPHIC SHEETS WA-NI 20-3-59 H-8556 (1959)  
~~WANI 20-3-60~~

H-8557 (1960)

A. PROJECT:

Instructions dated 19 December 1958 and revised instructions dated 18 February 1959, 5 January 1959, and 24 Feb. 1960.

B. SURVEY LIMITS AND DATES:

These sheets cover an area from longitude 67° 10'W to longitude 67° 32'W. The outer limits were established by visibility, usually between eight (8) to nine (9) miles from the signals. The inshore limit was followed as described in the instructions. These sheets make a junction with WANI-2259, H-8510 on its western limit and overlaps survey sheet H-1699, 1886 scale 1:40,000 on its eastern limit.

Field work on 2359 <sup>H-8556</sup> began on 8/19/59 and ended on 8/25/60. Sheet 2160, field work began on 7/11/60 and ended on 8/25/60. <sub>H-8557</sub>

C. VESSELS AND EQUIPMENT:

The Ship MAINWRIGHT was used for the major portion of (Sheet 2359) and the mid portion of approximately one half of sheet 2160. The Ship HILGARD was used only occasionally on (sheet 2359) and used on the eastern quarter and western quarter of sheet 2160.

(1) Echo sounding equipment used:

SHIP	SOC Fathometer No.	Letter Box	Sheet No.
MAINWRIGHT	58-S	A thru I	(2359) H-8556
MAINWRIGHT	58-S	A thru L	2160
HILGARD	1398P	D	2359
HILGARD	57-33	E	2359
HILGARD	138-SFK	F	2359
HILGARD	58-S	G	2359
HILGARD	138-SFK	J (26J to P)	2160
HILGARD	57-33	G thru H	2160
HILGARD	57-33	J (Pos 1-25)	2160
HILGARD	1398P	K (12K to 13K)	2160
HILGARD	1398P	L (14L to 15L)	2160

**D. TIDE AND CURRENT STATIONS:**

Portable automatic tide gages were installed on a platform at Steele Harbor Island (latitude  $44^{\circ} 29.45$ , longitude  $67^{\circ} 32.51$ ) and Stone Island (latitude  $44^{\circ} 36.08$ , longitude  $67^{\circ} 22.14$ ). At Cutler, Maine (latitude  $44^{\circ} 39.38$ , longitude  $67^{\circ} 12.25$ ) the gage was installed at a fishing wharf.

Tide reducers for the sheets were obtained as follows:

Sheet	Steel Hbr.	Stone Island	Cutler	From Washington
WAINWRIGHT	A thru L	V	-	H thru V * X ** D *
HILGARD	F (1 to 70) G	F (73 to end)	-	
HILGARD	-	H (1 - 197) B & E L, P, F (1-6P)	F (6-end) A, C, D ** G H (197-end) J, K, M, N	
WAINWRIGHT		L (1-4) & K G (1-90)	A to F H, J, & L (5-163)	G (90-169) ***

✓ Steele Harbor Island gage (latitude  $44^{\circ} 29.45$ , longitude  $67^{\circ} 32.9$ ) was used for the western half of sheet (20-3-59), H-8556

✓ Stone Island gage (latitude  $44^{\circ} 36.08$ , longitude  $67^{\circ} 22.14$ ) was used for the eastern half of (20-3-59) and western quarter of sheet 20-1-60. H-8556

← Plotted on Smooth Sheet

✓ Cutler, Little River gage (latitude  $44^{\circ} 39.38$ , longitude  $67^{\circ} 12.25$ ) was used for the eastern three-quarters of sheet 20-1-60. H-8557

✓ A 100 hour current survey was conducted at Smith Reef, latitude  $44^{\circ} 30.0'N$ , longitude  $67^{\circ} 21.1'W$ . The survey was begun on 14 September 1959 and ended on 18 September 1959.

Plotted on Smooth Sheet

**E. SMOOTH SHEET:**

The smooth sheet for (2359) <sup>H-8556 plotted</sup> was projected by personnel of the Ship ~~WAINWRIGHT and HILGARD~~ at the Norfolk District Office. Smooth sheet for 20-1-60 was projected in the Washington Office. Both sheets were transferred to the Norfolk District Office.

\*Steele Hbr. TG; <sup>\*\*</sup>Stone I. TG; \*\*\*Cutler TG

**F. CONTROL STATIONS:**

All control was located by conventional methods. The signals employed are listed in Attachment No. 1.

**G. SHORELINE AND TOPOGRAPHY:**

Shoreline was transferred to sheets from blue line manuscripts. Due to the fact that this is an off-shore survey, only the mean high water line was inked and no topography was included.

**H. SOUNDINGS:**

All soundings, in fathoms, were obtained by conventional methods with SCS fathometers on A and B scale. Velocity corrections were obtained, up to ten fathoms, from bar checks. These corrections were obtained by comparisons between scales and included in a single corrector in the column along with squat settlement and initial correction. Velocity corrections below 10 fathoms were obtained from temperature and salinity data.

See statements concerning  
phase corr.  
and speed corr.  
in Review  
Part. 4

**I. CONTROL OF HYDROGRAPHY:**

Control was visual using the three point fix with signals on shore. Near the off-shore limit visibility was poor, thereby producing frequent weak fixes.

**J. ADEQUACY OF SURVEY:**

This survey was considered adequate and no additional field work is necessary. The junction with prior survey MANI-2259 to the westward is adequate; overlap with prior survey H-1693, 1886, scale 1:40,000 to the east is good.

H-8510

**K. CROSSLINES:**

Crosslines are generally in good agreement with longitudinal sounding lines.

L. COMPARISON WITH PRIOR SURVEYS:

Previous surveys covering this area are H-4032 1928, H-1576 1883, H-1693 1886, & H-1059 (1870)

Poor agreement with prior surveys was noted. ← See Review Part 6.

The following is a list of the discrepancies found:

Name	Latitude	Longitude	Previous Depth	Present Depth	All in fms.	
SE Lodge	44° 28.85'	67° 27.0'	7.5	15.0 <sup>14.8</sup>	<p><del>SHANT 20-1-29</del> H-8556</p> <p>Values not checked by Reviewer See Review Part. 6</p>	
"	44° 28.82'	67° 27.47'	9.8	7.1		
"	44° 28.80'	67° 27.12'	9.3	8.1 <sup>5</sup>		
None	44° 33'	67° 21'	22.0	30.0 <sup>23.2</sup>		
"	44° 32'	67° 21'	22.5	30.0 <sup>22.3</sup>		
"	44° 27'	67° 21'	28.0	44.0 <sup>2</sup>		
"	44° 29' <sup>37</sup>	67° 22' <sup>81</sup>	30.0	40.0 <sup>30.0</sup>		
"	44° 30' <sup>15</sup>	67° 24' <sup>29</sup>	30.0	37.0		
"	44° 29.2'	67° 26.8'	27.25	39.0 <sup>25.8</sup>		
"	44° 30.4'	67° 25.5	38.0	50.0 <sup>53.5</sup>		
"	44° 26.80'	67° 26.7'	25.5	18.0 <sup>4</sup>		
"	44° 26.7'	67° 27.0'	30.0	18.0 <sup>17.8</sup>		
"	44° 28.45'	67° 28.12'	25.0	9.7		
"	44° 26.4'	67° 29.0	44.0	53.0		
"	44° 26.85'	67° 29.0	44.0	63.0		
"	44° 30.85'	67° 28.9	15.0	6.9 <sup>12.2</sup>		
"	44° 30.99'	67° 29.1'	15.0	9.0 <sup>appoy 12.0</sup>		
"	44° 33.8'	67° 20.65'	Not shown	10.8		<p>H-8557</p> <p><del>SHANT 20-1-60</del></p> <p>38' fath. depth slightly SW of 48</p>
"	44° 33.9'	67° 20.45'	Not shown	10.8		
"	44° 27.0'	67° 21.0'	28.0	44.0		
"	44° 28.0'	67° 20.0'	Not shown	32.00		
"	44° 28.0'	67° 18.0'	32.75	47.0		
"	44° 31.0'	67° 16.0'	38.0	48.0		
"	44° 29.35'	67° 15.0'	Not shown	26.0		
"	44° 29.55'	67° 14.6'	Not shown	19.0		
"	44° 29.7'	67° 14.25'	Not shown	8.0		
"	44° 28.8'	67° 15.55'	Not shown	17.0		
"	44° 31.0'	67° 13.0'	35.75	14.0		
"	44° 30.88'	67° 13.0'	Not shown	13.0		
"	44° 35.0'	67° 12.0'	46.5	50.0		
"	44° 36.0'	67° 12.0'	44.75	50.0		
"	44° 31.5	67° 11.4'	Not shown	9.2		
"	44° 31.68'	67° 11.0'	Not shown	9.0		
"	44° 31.65'	67° 10.9'	Not shown	10.4		
"	44° 31.95'	67° 10.95'	Not shown	6.0		
"	44° 31.93'	67° 10.05'	Not shown	9.2		
"	44° 31.7'	67° 10.1'	Not shown	9.6		

\*combined hydrographic survey and wire drag  
(H-4032a) (H-4032)

**M. COMPARISON WITH CHART:**

In general good agreement with the charted depths and the present survey were noted. However, many shoal areas and discrepancies were found in the uncharted regions of the chart. These are listed below:

Latitude	Longitude	Charted Depth in vicinity ft.	Depth found in present survey ft.
44° 31.7'	67° 10.1'	127'	57.6'
44° 31.93'	67° 10.05'	112	55.2
44° 31.95'	67° 10.95'	112	36.0
44° 31.65'	67° 10.90'	127	62.4
44° 31.5'	67° 11.4'	118	55.2
44° 30.88'	67° 13.0'	160	78.0
44° 31.0'	67° 13.0'	160	84.0
44° 29.7'	67° 14.25'	144	48.0
44° 29.55'	67° 14.6'	144	114.0
44° 29.35'	67° 15.0'	216	156.0
44° 28.8'	67° 15.55'	216 - 396	119.0
44° 33.8'	67° 20.65'	90 - 121	65.0
44° 32.0'	67° 21.0 <sup>65</sup>	135 - 154 (22 <sup>2</sup> - 25 <sup>2</sup> )	182.0 (27.2 (21.2))
44° 28.0'	67° 18.0'	196	282.0 (NOT ON 20-3-54)
44° 31.0'	67° 29.1'	122 (20.3 fms)	54.0 (8.8 fms pos 43F (blue))
44° 26.85'	67° 29.0 <sup>50</sup>	208 (48 <sup>2</sup> )	301.8 (approx 41 <sup>2</sup> fms 246.04)
44° 28.45 <sup>6</sup>	67° 28.2'	65 (10.8 fms)	58.2 (9.7 fms 151-152 G)
44° 30.4'	67° 25.5'	159 - 225 (26 <sup>2</sup> - 37 <sup>2</sup> )	248.0 (OK but depth to 73° (438) NOT CHARTED)

Not on H-8556

Values not checked by Reviewer. See Review Part 7

**N. DANGER & SHOALS:**

The following are newly found shoals that should be noted:

Latitude	Longitude	Previous Depth	Found Depth - ft.
44° 31.95'	67° 10.95'	approx. 112	436 (smooth)
44° 30.88'	67° 13.0'	160	38
44° 31.0'	67° 13.0'	160	84
44° 31.5'	67° 11.4'	118	53
44° 29.7'	67° 14.25'	144	48
44° 29.55'	67° 14.6'	144	114
44° 29.35'	67° 15.0'	216	156
44° 28.8'	67° 15.55'	216 - 396	119
44° 33.8'	67° 20.65'	90 - 121	65
44° 31.0'	67° 29.0'	122 (20 <sup>2</sup> )	54 (8 <sup>2</sup> (51.6) pos 43F (blue))
44° 28.4 <sup>6</sup>	67° 28.2 <sup>12</sup>	65 (10.8 fms)	58 (9.7 fms - 151-152 G)
44° 31.65'	67° 10.9'	112 to 127	62.4
44° 31.5'	67° 11.4'	112	55.2

Values not checked by Reviewer. See Review Part 6 & 7

Not on H-8556

Not on H-8556

\* Reported to Bureau, chart letter dated 13 December 1960, Wire dragged to 34'.

Q. COAST PILOT INFORMATION:

With reference to U. S. Coast Pilot 1, Atlantic Coast, Newport to Cape Cod, Sixth Edition (1960) - On page 54, col. 2 between lines 19 and 20 add "An unnamed shoal with a least depth of 36.0' is located approximately 3.8 miles NW of Machias Seal Island Lighthouse (44° 31.9'N, 67° 10.9'W). A clear depth of 34' by wire drag was obtained."

} Not on  
H-8556

On page 26, col. 1, line 17, add - "The 26 radio towers on the reservation are of various heights but all are quite conspicuous." This report was submitted to the Director in a letter dated 13 December 1960.

P. AIDS TO NAVIGATION:

No fixed aids to Navigation were located as all in the vicinity had been done so previously.

Floating Aids to Navigation located:

<u>Name</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Depth</u>	<u>Position Number</u>	<u>Date</u>
Black/White "HP" Whistle	44° 26.1' 4	67° 29.4'	45.2 fms 7	970 Sh 2359 MAINWRIGHT	9/18/59

R. SILTED AREAS:

No extreme silted areas were in evidence.

Respectfully submitted:

John T. Maldari, Ensign, CGS

Approved and Forwarded:

D. G. Bushford, LCDR, CGS  
Commanding MAINWRIGHT & HILGARD



LIST OF SIGNALS

See Norfolk  
Processing Office  
List of Signals on  
preceding page.

TRIANGULATION:

NAME	SOURCE
335 ✓ TON	Kenton, 1946
174 ✓ NIM	Crugale, 1862
218 ✓ NCO	Nesse Peak Light House, 1862
222 ✓ STON	Stone Island Lodge Beacon, 1913
135 ✓ LIB	Libby Islands Light House, 1862
195 ✓ RIV	Little River Light House tower, 1863
136 ✓ HUE	Hue, 1883, 1913
185 ✓ SAND	Sandy Point, 1863, 1913
✓ GAT	(See position computation - 3rd Order triangulation included)
✓ YCK	"

\* \* Used for hydro only; unmarked stations. GP/s Attach #4 ← this report

MARKED TOPOGRAPHIC:

✓ H-8556	HIGH	T-8650 S/2 1946
✓ H-8556	FREE	T-8650 S/2 1946

TOPOGRAPHIC:

✓ H-8556	ARK	T-8646 S/2
✓ H-8556	RIE *	See Vol. 2 (Obs. of horizontal directions) Pg. 8 T-8646 S/2 *
✓ H-8556	THE	Area of T-8799 - FN 5906 Sheet IV
✓ H-8556	LAN	Area of T-8800 - FN 5906 Sheet V
✓ H-8556	ONE	" " " " " "
	XIG	" " " " " "
	COY	" " " " " "
*	TCW	" " " " " "
*	APB	" " " " " "
	RAD	Area of T-8796 - FN 5906 Sheet XI
	GRA	Area of T-8797 - FN 5906 Sheet XII
*	JOE	" " " " " "
*	HIL	" " " " " "
	RAR	" " " " " "
	GAR	" " " " " "

PHOTO METER:

NUT	Area of T-880 - FN 5906 Sheet V
SAY	Area of T-8797 - FN 5906 Sheet XII
REL	" " " " " " HILGARD 7 day Sheet
VAL	20-1-60 Vol. No. 4, Page 725 NIPP Manuscript T-8797

\* See Vol. 1 pg 2 for location in record books

STATISTICSSHEET 20-1-59 H-8556

Volume Number	Day Letter	Date	Number of Positions	Nautical Miles (Improper fathometer speed) (bottom samples)
MIIGARD	A, B, C	Rejected	141	
3	D	6/27/60	141	43.0
3	E	7/19/60	3	
3	F	8/16/60	136	29.9
4	G	8/25/60	6	1.5
<u>MAINWRIGHT</u>				
1	A	8/19/59	69	14.6
1 & 2	B	8/20/59	207	77.3
2	C	8/26/59	97	33.6
3	D	8/27/59	23	6.4
3	E	9/16/59	95	24.4
3 & 4	F	9/17/59	43	15.5
4	G	9/18/59	174	44.0
5	H	9/23/59	57	17.3
6	J	6/13/60	60	18.2
6	K	6/14/60	175	52.4
7	L	6/22/60	180	60.0
8	M	7/1/60	172	46.2
8 & 9	N	7/6/60	155	43.0
9	P	7/7/60	125	28.8
10	Q	7/14/60	26	6.8
10	R	7/15/60	185	55.3
11	S	7/21/60	153	42.0
11	T	7/22/60	101	29.0
12	U	8/1/60	183	34.0
12	V	8/5/60	150	29.3
13	W	8/18/60	30	5.3
13	X	8/24/60	145	30.2

SHEET 20-1-60 H-8557

1	MAIN'T	A	7/21/60	36	7.4
2		B	7/25/60	206	57.5
2 & 3		C	7/26/60	163	43.0
3		D	8/1/60	112	27.5
3 & 4		E	8/9/60	205	46.3
4		F	8/10/60	230	65.2
5		G	8/16/60	211	52.0
5 & 6		H	8/17/60	169	40.6
7		J	8/18/60	68	12.3
7		K	8/19/60	244	50.7
8		L	8/24/60	163	36.3

3032

**Attachment #2 Continued**

**STATISTICS**

<b>Volume Number</b>	<b>Day Letter</b>	<b>Date</b>	<b>Number of Expositions</b>	<b><u>Nautical Miles</u></b>
<b>MILGARD Sheet 20-1-60 continued</b>				
1	A	7/14/60	94	27.5
1	B	7/15/60	167	47.9
2	C	7/19/60	22	4.4
2	D	7/22/60	200	47.5
3	E	7/26/60	184	47.5
3 & 4	F	8/4/60	167	49.0
4 & 5	G	8/5/60	214	58.8
5	H	8/9/60	239	57.2
6	J	8/10/60	227	64.8
6	K	8/11/60	21	4.2
7	L	8/12/60	23	3.5
7	M	8/17/60	108	21.9
7	N	8/24/60	143	30.3
8	P	8/25/60	151	28.5
			<u>3767</u>	

VELOCITY CORRECTIONSFathometer 58-8

<u>From (Fms.)</u>	<u>To (Fms.)</u>	<u>Corr. (Fms)</u>
0	1.6	+0.2
1.6	6.0	0.0
6.2	21.0	-0.2
21.2	35.4	-0.4
35.6	50.2	-0.6
50.4	64.8	-0.8

Fathometer 57-31

<u>From (Fms)</u>	<u>To (Fms.)</u>	<u>Corr. (Fms)</u>
0	2.6	+0.2
2.8	10.0	0.0
10.2	21.0	-0.2
21.2	35.4	-0.4
35.6	50.2	-0.6
50.4	64.8	-0.8

Fathometer 132-87X

<u>From (Fms.)</u>	<u>To (Fms.)</u>	<u>Corr. (Fms)</u>
0	1.2	+0.2
1.4	5.0	0.0
5.2	21.0	-0.2
21.2	35.4	-0.4
35.6	50.2	-0.6
50.4	64.8	-0.8

Fathometer 139-87

<u>From (Fms)</u>	<u>To (Fms.)</u>	<u>Corr. (Fms)</u>
0	0.6	+0.2
0.8	6.0	0.0
6.2	21.0	-0.2
21.2	35.4	-0.4
35.6	50.2	-0.6
50.4	64.8	-0.8

GEOGRAPHIC POSITIONS OF HYDROGRAPHIC SIGNALS

The following is a list of Geographic positions of hydrographic signals computed by this party.

<u>Signal</u>	<u>Latitude</u>	<u>Longitude</u>
JOE	44° 37' 09.578" -	67° 14' 13.337" -
HIL	44° 37' <sup>38</sup> 20.377" -	67° 12' 48.415" -
APE	44° 36' 17.435" -	67° 15' 47.053" -
FOK	44° 34' 22.43" -	67° 24' 26.6" -
GAT	44° 29' 42.374" -	67° 30' 42.966" -
* Tow	44° 36' 41.236"	67° 16' 33.636 <sup>7</sup> "

} H-8556

\* from WASH. office

NORFOLK PROCESSING OFFICE  
LIST OF SIGNALS  
TO ACCOMPANY

H-8556

TRIANGULATION STATIONS

LIB LIBBY ISLANDS L.H. (OLD), 1862  
MOO MOOSE PEAK L.H., 1862  
RUM CRUMPLE, 1862-1934  
STONE STONE ISLAND LEDGE BEACON, 1913  
TON KEATON, 1946

MARKED TOPOGRAPHIC STATIONS

FREE, 1946 T-8650  
HIGH, 1946 "

COMPUTED TOPOGRAPHIC STATIONS (See Field computations & D.R.)

CAT FOX (*unmarked stations - used for hydro only*)  
*see attachment #4 for G.P.'s.*

TOPOGRAPHIC STATIONS

RUE (See vol. 1, pg. 2)  
ARK T-8646  
THE T-8799  
LAN T-8800  
ONE T-8800

NORFOLK PROCESSING OFFICE  
ADDENDUM  
To Accompany

HYDROGRAPHIC SURVEY H-8556 (Wa-H1 2359)

GENERAL

Except for the discrepancies listed below, this appears to be an excellent basic survey.

CONTROL

Fixes controlling positions distant from signals, particularly on the West and South limits of hydrography, were observed using slender angles and there is undoubtedly some minor position displacement in these areas.

SOUNDINGS

Soundings are in good agreement at crossings considering the extremely irregular character of the bottom and the control weaknesses in offshore areas.


Fathometer speed corrections averaging -22% were applied to soundings between 1 and 108D, Hilgard, to bring them into agreement with surrounding hydrography. For purposes of legibility and clarity, the soundings on this entire day were re-scanned and re-recorded in volume 15. Fathometer speed and other applicable corrections were then applied to the soundings.

A, B & C days, Ship Hilgard, were rejected by the field party because of fathometer speed troubles. The fathograms and boat sheet were submitted to this office along with the other records - the sounding volumes were not forwarded.

Fathom depth units were used in compliance with the Deputy Director's letter dated July 7, 1961, 211/rtb.

Norfolk, Va.  
Jan. 23, 1962

Respectfully submitted,

  
Hugh L. Proffitt  
Cartographer

GEOGRAPHIC NAMES

Survey No. H-8556

Name on Survey	Sources										No.	
	A	B	C	D	E	F	G	H	K	BGN		
Libby Islands	✓										✓	1
Little Breaking Ledge	✓	(Falls off northern edge of survey - not used)										2
Misery Ledge	✓	(Falls off northern edge of survey - not used)										3
Mistake Island	✓											4
Southeast Ledge	✓											5
* Steele Harbor Island	✓											6
* The Brothers	✓											7
												8
												9
												10
												11
												12
												13
												14
												15
												16
												17
												18
												19
												20
												21
* Added by D.E.W.												22
7/8/65												23
												24
												25
												26
												27

*George D. Ball*  
*Geographic Names*  
 27 Feb 1962



Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. *8556*...

Records accompanying survey: Smooth sheets *1*...;  
 boat sheets *1*...; sounding vols. *15*...; wire drag vols. ....;  
 (2 parts)  
 Descriptive Reports *1*...; graphic recorder envelopes *5*...;  
 special reports, etc. ....  
 .....

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

Number of positions on sheet		<i>3057</i>
Number of positions checked		<i>10%</i>
Number of positions revised		<i>3</i>
Number of soundings revised (refers to depth only)		<i>0</i>
Number of soundings erroneously spaced		<i>5</i>
Number of signals erroneously plotted or transferred		<i>0</i>
Topographic details	Time	<i>4</i>
Junctions	Time	<i>30</i>
Verification of soundings from graphic record	Time	<i>24</i>
Special adjustments	Time	<i>30</i>

*Tenths of Fathoms were applied and inked from the Sounding Volumes.*

Verification by *Geo. A. Kozemczak* Total time *462* Date *Jan. 21-65*

Reviewed by *Del. E. Wetmore* Time *74 hrs.* Date *2/8/65*  
*Insp. Carstens 4 hr 3/25/66*

H-8556

Items for Future Presurvey Reviews

This is a stable bottom area. Depths on features are adequately determined, considering the depth of water.

<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 (Years)</u>
442	674	1	1	50
442	673	1	1	50
443	673	1	1	50

OFFICE OF MARINE SURVEYS AND MAPS  
MARINE SURVEYS DIVISION  
HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8556

FIELD NO. WA-HI-20-3-59

Maine, Gulf of Maine, Mistake Island to Libby Islands

SURVEYED: August 1959 - August 1960

SCALE: 1:20,000

PROJECT NO.: OPR-408

SOUNDINGS: 808 Depth Recorders

CONTROL: Sextant Fixes  
on Shore Signals

Chief of Party .....	J. R. Plaggmier (1959)
	D. G. Rushford (1960)
Surveyed by .....	J. R. Plaggmier
	D. G. Rushford
	J. T. Maldari
	V. Kiisk
	G. N. Orr
	K. R. Anderson
	D. I. Wolsk
	P. T. Redden
	R. A. Trauschke
Protracted by .....	A. G. Atwill
Soundings Plotted by .....	A. G. Atwill
Verified and Inked by .....	G. A. Kozemczak
Reviewed by .....	D. E. Westbrook
	Date: July 8, 1965
Cursory inspection made--survey	R. H. Carstens
processing considered complete .....	Date: March 25, 1976

1. Description of the Area

This is an offshore survey in the Gulf of Maine covering an area between Mistake Island and Libby Islands. The survey was carried offshore about 8-9 miles which is the approximate limit of visual control.

The bottom is extremely rugged throughout much of the survey area and is characterized by numerous knolls, ridges, and depressions.

Sedimentary mud deposits cover most of the bottom interspersed with sand, gravel, and broken shells. The knolls and ridges are, for the most part, hard or rocky.

The most important feature in the area is Southeast Ledge, which rises to 42 feet from 200-foot depths.

## 2. Control and Shoreline

The origin of the control is adequately described in the Descriptive Report.

The shoreline originates with reviewed photogrammetric manuscripts T-8646 S/2 (1944-48), T-8649 S/2 (1948), T-8650 N/2 (1948), T-8799 (1948), and T-8800 (1946-49). The shoreline has been shown for orientation purposes, and its complete delineation should be obtained from the manuscripts listed above.

## 3. Hydrography

A. Depths at crossings are in good agreement.

B. The usual depth curves were adequately delineated. Several shoal soundings were emphasized with dashed or solid brown depth curves in accordance with paragraph 6-64 of the Hydrographic Manual.

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

## 4. Condition of the Survey

The field plotting, records, and Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual except that:

A. An error in depth recorder speed was found during smooth plotting between positions 1-108D, Ship HILGARD. Corrections averaging -22 percent had to be applied to bring these lines into agreement with the surrounding hydrography.

B. The tide reducers between positions 1-112L, Ship WAINWRIGHT, were found by the Tides Branch to have been computed or entered in error by the field party and were revised.

C. During verification of A- and B-scale line crossings on the survey, it was found that the phasing head on 808 fathometer number 58-S, Ship WAINWRIGHT, was subject to considerable play (B-day in particular). As a result, the zero phase correction for B-scale as determined by the field party was found to be invalid. A reexamination of the fathograms indicated variable phase corrections of up to -4 fathoms on several lines, which necessitated considerable office work in making the corrections.

D. The control used was somewhat weak on the offshore edges of the survey. Thin angles were used either because of visibility problems or protractor length limitations. Although it is not believed that the overall accuracy of the survey was substantially affected because of a few weak fixes, offshore visual control problems can often be alleviated by the use of "circle sheets" as authorized and discussed in the Hydrographic Manual. The use of "circle sheets," where justified, often results in stronger fixes and more convenient plotting.

E. As soundings in the area of this survey are <sup>charted</sup> plotted in feet, fractions of fathoms were added to depths greater than 11 fathoms in order to provide more precise depths.

#### 5. Junctions

Adequate junctions were effected with H-8510 (1959) on the west, and H-8667 (1962) on the south.

The junction with H-8557 (1960) on the east will be discussed in the review of that survey.

No contemporary survey joins the present survey on the north, but present survey depths are in harmony with charted depths in this area.

#### 6. Comparison with Prior Surveys

A.	H-1059	(1:10,000)	1870
	<u>H-1576</u>	<u>(1:40,000)</u>	<u>1883</u>

Taken together these surveys comprise the prior coverage of the present survey area.

Only a small portion of the present survey is common with H-1059 (1870). A comparison between the two surveys reveals little change in the bottom. Although the prior survey is on a larger scale, the present survey's more complete development and closer spaced lines enable it to adequately supersede this prior survey within the common area.

A comparison between the present survey and H-1576 (1883) also indicates little change in the bottom configuration. The present survey, however, with its more complete development and larger scale, reveals numerous features and lesser depths not disclosed on the prior survey.

Numerous bottom characteristics were brought forward from this prior survey to supplement the present survey, and, with the addition of these, the present survey is adequate to supersede the prior survey within the common area.

B. H-4032 W.D. (1:40,000) 1918

Depths shown on the present survey do not conflict with the effective drag depths claimed on this wire-drag survey.

One sounding and two bottom characteristics were brought forward, however, to supplement the present survey.

C. H-4032a (1:40,000) 1918

This prior survey contains supplementary soundings obtained while the above wire-drag survey was in progress.

Because of the smaller scale and scarcity of soundings on this survey, no comprehensive comparison with the present survey can be made. However, most of the depths compare favorably.

One sounding and one bottom characteristic were brought forward from this prior survey to supplement the present survey.

With the addition of the above items, the present survey is adequate to supersede the prior survey within the common area.

7. Comparison with Chart 304, 5th Ed., Rev. August 17, 1964

A. Hydrography

Most of the charted hydrography in the area of the present survey originates with the previously discussed prior surveys which require no further consideration.

This hydrography has been supplemented by numerous soundings from the boat sheet of the present survey, a few of which were found to be erroneous.

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

B. Aids to Navigation

The one floating aid to navigation in the area was located on the present survey, and its position is in substantial agreement with the charted location. This aid, however, is used for coastal navigation and marks no particular feature.

8. Compliance with Instructions

The present survey adequately complies with the Project Instructions.

9. Additional Field Work

This survey is considered to be a good basic survey and no additional field work is recommended.

Examined and Approved:

a. J. Patril  
Chief  
Marine Surveys Division

Robert C. Munson  
Associate Director  
Office of Marine Surveys  
and Maps





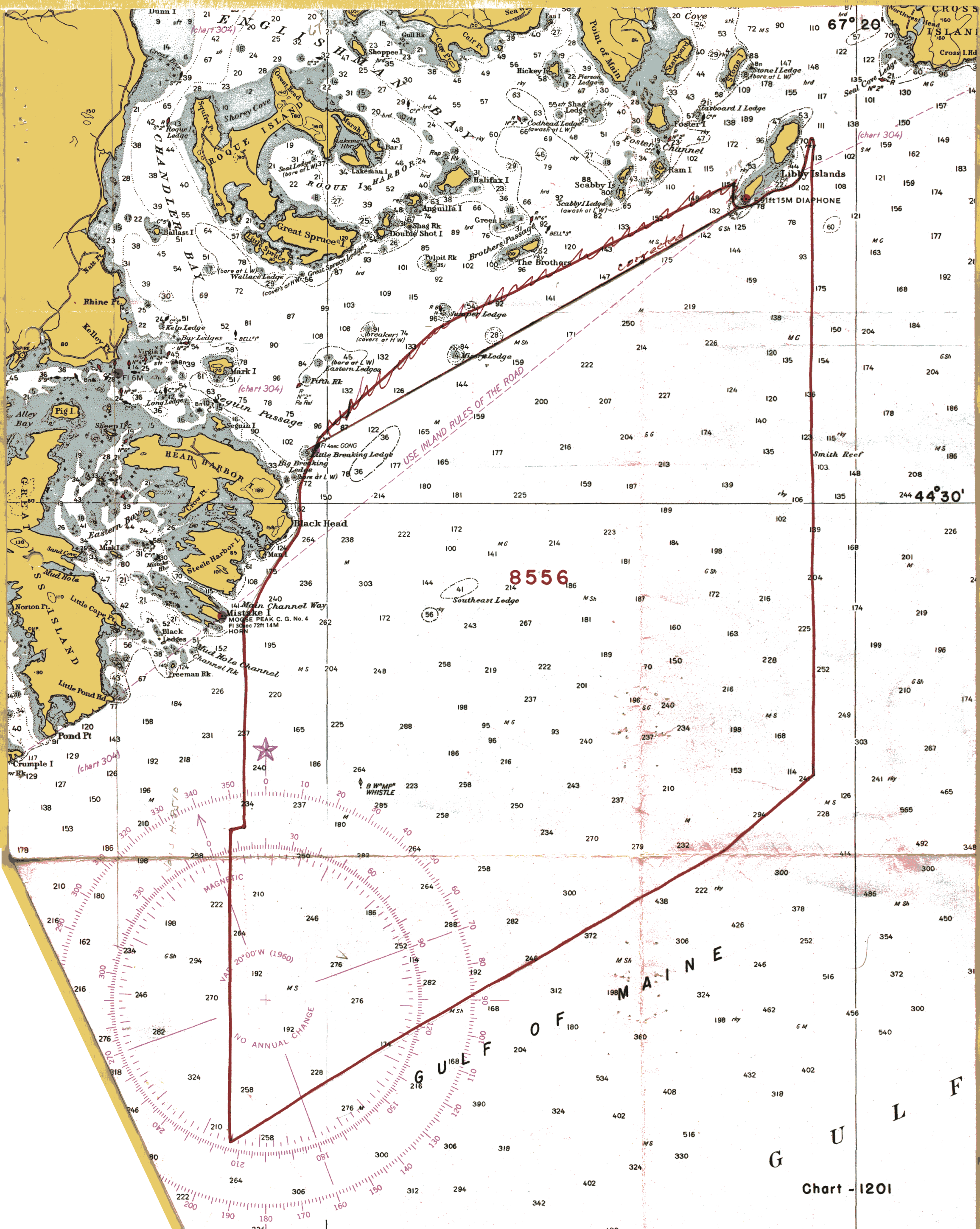


Chart - 1201

8556

GULF OF MAINE

MAGNETIC  
VAR 20°00'W (1960)  
NO ANNUAL CHANGE

corrected

USE INLAND RULES OF THE ROAD

# NAUTICAL CHARTS BRANCH

SURVEY NO. H-8556

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
2/26/62	304	John Dailey	Before <del>Exam</del> Verification and Review Exam. - No Corr.
3-2/62	1000	Earl M. Boggs	Before <del>Exam</del> Verification and Review Exam No Cut Gr thru cht 304
10-11-62	1201	G.R. Johnson	Before <del>Exam</del> After Verification and Review Partly Applied (revisions applied are from the boat sheet) through cht. 304 drg # 12 & #11
10-15-62	1106	G.R. Johnson	Before <del>Exam</del> After Verification and Review Partly Applied through cht 1201 drg #17
10-15-62	70	G.R. Johnson	Before <del>Exam</del> After Verification and Review Partly Applied through cht 1106 drg #17
2-18-65	304	G.R. Johnson	Before <del>Exam</del> After Verification and Review <sup>before</sup> Partly Applied (complete application, except for Review corrections)
11-22-65	304	G.R. Johnson	Before <del>Exam</del> After Verification and Review <sup>before</sup> Insp. Partly Applied
12-8-65	1201 Reconst.	G.R. Johnson	Before <del>Exam</del> After Verification and Review <sup>before</sup> Insp. Partial application thru cht 304, drg #14.
7-28-70	70	J. Stuart	Before <del>Exam</del> After Verification and Review <sup>before</sup> Insp.
8-31-70	304	Jeffrey Stuart	Before <del>Exam</del> After Verification and Review before Insp Part - No further Corr.
6-12-72	1000	J. Bailey	AFTER REVIEW BEFORE INSPECTION
B-6-73			Exam <sup>part. applied</sup> <del>no corr.</del> thru DRWG 70 # <del>36</del> <sup>37</sup>
12-4-72	1106	J. Bailey	AFTER REVIEW BEFORE INSPECTION Exam. for critical corrs. Revised several soundings thru DRWG. 1201 #22. (Partly Applied)
7-13-73	70	H. Radden	After Review before Insp. critical corr thru cht. 1106 #28

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.

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8556

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
13003	2-7-90	Ed Martin	<del>Full Part Before</del> After Verification Review Inspection Signed Via Drawing No. 61 Adequately applied, no further processing required
13006	2-12-90	Russell Kennedy	<del>Full Part Before</del> After Verification Review Inspection Signed Via Drawing No. 47 Adequately applied, no further processing necessary
13260	2-22-90	Russell P Kennedy	<del>Full Part Before</del> After Verification Review Inspection Signed Via Drawing No. 47 Adequately applied, no further processing necessary
13325	11-19-90	Betty Szatkowski	<del>Full Part Before</del> After Verification Review Inspection Signed Via Drawing No. 27 Fully applied
13260	4-2-91	Dan Clark	<del>Full Part Before</del> After Verification Review Inspection Signed Via Drawing No. 40
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
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