8255

Diag. Cht. No. 1205-2.

Proj 1355

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. ECFP - 1355 Office No. H-8255

LOCALITY

State MAINE

General locality MAINE OUTER COAST

Locality KENNEBUNK BEACH TO ~~FORTUNES ROCKS~~ Curtis Cove

1955

CHIEF OF PARTY

Marvin T. Paulson, LCdr.

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DATE MAR 14 1958

COMM-DC 61300

8255

8255

Form 537
(Ed. June 1946)

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-8255

Field No. ECFP-1355

State MAINE

General locality MAINE OUTER COAST

Locality KENNEBUNK BEACH TO FORTUNES ROCK

Scale 1:10,000 (1:5,000 INSERT) Date of survey 26 July to 11 Oct. 1955

Instructions dated 6 March 1953; 29 January 1954 & 16 February 1955

Vessel EAST COAST FIELD PARTY (LAUNCH CS-82)

Chief of party MARVIN T. PAULSON

Surveyed by C.W. TUPPER

Soundings taken by ~~echometer~~, graphic recorder, hand lead, ~~wire~~ POLE

Fathograms scaled by FIELD PARTY

Fathograms checked by NORFOLK DISTRICT OFFICE

Protracted by A.K. SCHUGELD

Soundings penciled by A.K. SCHUGELD

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

REMARKS: This survey was smooth plotted by the Hydrographic Section of the Norfolk District Office.

U. S. GOVERNMENT PRINTING OFFICE 16—66520-1

DESCRIPTIVE REPORT

to Accompany

Hydrographic Sheet H - 8255 (Field No. ECFP 1355)

East Coast Field Party — Marvin T. Paulson, Chief of Party

Project 1355 — Scale 1:10,000

26 July to 11 October 1955

A. Project

A basic survey of the outer coast from Ipswich Bay, Mass. to the Saco River, Maine. Accomplished under instructions as follows:
Instructions 22/MEK FP-East Coast, dated 6 March 1953
Addressed to Commander Clarence R. Reed, OinC, East Coast Field Party.

Supplemental Instructions: 22/MEK - FP-East Coast, dated 29 January 1954,
Addressed to Commander Clarence R. Reed, OinC, East Coast Field Party.

Supplemental Instructions: 22/MEK - FP-East Coast, dated 16 February 1955,
Addressed to Officer in Charge, East Coast Field Party.

B. Survey Limits & Dates

Field work on sheet H-8255 (ECFP - 1355) commenced on 26 July 1955 and terminated on 11 October 1955. Work was performed along the outer coast from the Kennebunk Beach to Fortunes Rock.

The survey on this sheet includes the Mousom and Kennebunk Rivers. The southwest limit of the sheet makes junction with the contemporary survey H-8254 and extends from a point on shore 1.4 miles south west from Kennebunk River Entrance, to Lat. 43 17.5, Long. 70 28.40. The offshore limit makes junction with prior surveys H-7148 (scale 1:40,000 1946) and H-7147 (scale 1:40,000, 1946). The northeast limit extends from Lat. 43 23.20, Long. 70 20.00 to a point on shore 0.2 miles northeast of Curtis Cove and makes junction with contemporary survey H-8256. Inshore near the vicinity of the entrance to Cape Porpoise Harbor this survey makes junction with contemporary survey H-8163 (1954) (scale 1:5,000).

Overlaps at all junctions were in close agreement with prior and contemporary surveys.

That portion of the survey accomplished in the Kennebunk River was on a 1:5,000. Scale insert on Sh. H-8255.

C. Vessels and Equipment

Launch CS-82 was used entirely on sheet H-8255. It was operated from a mooring near the entrance to the Kennebunk River at Kennebunkport, Maine until work had progressed north east by Cape Porpoise Harbor Entrance when it was moved to a mooring in Cape Porpoise Harbor. During the final stages of development and regular hydrography near the north east limit of the sheet, the launch was moved to a mooring at Biddeford Pool, Maine. This permitted accomplishment of hydrography on sheet H-8256 while running to and from the working grounds.

The launch was operated at a standard sounding speed of 1500 to 1600 r.p.m. (8 knots) and had a turning radius of 15 meters at this speed.

During the earlier part of the season 808 type fathometers were used with the transducers mounted inboard in the bilge just aft of the engine. The latter part of the season on this sheet, the new model EDO type fathometer was used with the transducer units mounted in a fish and suspended over the side of the launch immediately aft of the engine.

Following is a list of fathometers used on this sheet and their nos:

808 type No. 101-S
808 type No. 121-S
EDO No. 202

Note: See item U-Y Miscellaneous for difficulties encountered with the 808 type fathometers.

D. Tides and Currents

Portable automatic tide gages were maintained at the following places:

1. Entrance to Kennebunk River
2. Bickford Island, Cape Porpoise
3. Coast Guard Pier, Biddeford Pool

Tidal data for this sheet are taken from the Kennebunkport and Cape Porpoise gages. The tidal note is appended to this report. Smooth tide curves will be submitted in a separate report at a later date.

E. Smooth Sheet

The smooth sheet will be plotted by the Norfolk Processing Office.

F. Control Stations

Control stations consisted of triangulation and photo hydro stations. Photo hydro signals were plotted on the Topographic Manuscripts T-11160, T-11162, and T-11163 by Photogrammetrist Richard H. Houlder. These were then transferred to the boat sheet.

G. Shoreline and Topography

The shoreline and topographic details were transferred from topographic blue line manuscripts Nos. T-11160, T-11162 and T-11163.

There were no important changes in shoreline or topographic features determined during this survey.

Areas not accessible by land due to foul area or heavy breakers are outlined and labeled as such. In all other areas the low water line is defined by soundings.

H. Soundings

Soundings were obtained with an 808 type and an EDO type graphic recorder with least depths being verified by the hand lead and sounding pole in accordance with paragraph 46 of the Hydrographic Manual.

Standard procedures were used in obtaining velocity corrections. All corrections were entered and checked in the sounding volumes and an abstract of the velocity corrections is appended to this report. Velocity curves and a folder labeled "Bar Check Tabulations Project 1355" will be transmitted in a separate envelope.

All bottom samples were obtained with an armed hand lead. The lead line was standard Samson tiller rope referred to in paragraph 462 of the Hydrographic Manual and it was calibrated at the beginning of the season.

I. Control of Hydrography

Hydrography was controlled entirely by three point fixes at intervals of from 1 to 1½ minutes. There were no unusual jumps noted when changing control stations.

J. Adequacy of Survey

The survey on sheet H-8255 is considered adequate to supersede prior surveys for charting. Junctions with prior surveys and contemporary surveys mentioned in Item B. Survey Limits and Dates are satisfactory and depth curves can be adequately drawn at the junctions.

K. Cross Lines

Cross lines were run to the extent of 5-8 per cent of the regular system of sounding line excluding development and agreement was satisfactory.

L. Comparison with Prior Surveys

A comparison with prior surveys H-7148 (scale 1:40,000; 1946) and H-7147 (scale 1:40,000; 1946) and chart 1205-Rev. (1952) show some minor discrepances. The comparison with prior surveys together with the preliminary review on chart 1205 are listed in the following item M.

M. Comparison with the Chart and Prior Surveys

The following items refer to the preliminary review of chart 1205 dated 15 March 1954. Items No. 32, 39, 40, and 41 together with several features underlined or marked by dashed circles are discussed in this item. Items No. 33-38 were investigated on Sh. H-8163 (pk-05253) in 1954.

In each case of shoal investigation, unless otherwise stated, the approximate position of the shoal was obtained on sounding lines during development. Then a small float buoy was dropped on position and the launch circled the buoy

at gradually increasing and decreasing distances until the shoalest point was determined and verified by the hand lead.

Item No. on Preliminary Review	Remarks
32.	The 12 ft. sounding shown in Lat. 43 23.90 Long. 70 23.00 was not verified. There was no indication of a shoal of this depth 700 meters from shore. Neither were there signs of breakers on the spot at low water and easterly sea. The shoalest sounding obtained near the spot was 29 ft. fathometer sounding that was a common sounding in the general area.
39.	The 21 ft. sounding charted in Lat. 43 20.50, Long. 76 26.15 was not verified. The shoalest sounding obtained near this position was 45 ft. The shoal was outlined during regular system of hydrography and a cross line run at a later date showing nothing shoaler than the 44 ft. sounding. It would seem possible that the recorder on survey H-669 (1859) may have confused the sounding with the course change or fix immediately proceeding the sounding.
40.	The 22 ft. sounding charted at Lat. 43 20.00, Long. 70 26.70 was not verified as such; however, 150 meters west of this spot after 20 minutes circling buoy on shoal, two detached positions showed 29 ft. as least depth. Vol. 17, pg. 14, pos. 20-21 e a day. The 18 ft. sounding charted at Lat. 43 20.00, Long. 70 27.60 was verified; however, the position was 220 meters SE of the charted location. After 20 minutes of drifting over area, the least depth was found to be 17 ft. Vol. 14, pg. 9, pos. 87-88 y day. The 34 ft. sounding in Lat. 43 19.80, Long. 70 26.12 was not verified as such; however, 450 meters SE of the charted position, a 43 ft. lead line sounding was obtained after 20 minutes were spent drifting around marker buoy on shoal. Vol. 17, pg. 11, pos. 8 e a day. The 33 ft. sounding in Lat. 19.4.0, Long. 70 26.8 was verified. A 28 foot lead line sounding was obtained after 20 minutes of circling marker buoy on shoal. Vol. 14, pg. 7, pos. 86.
41.	The 9 ft. sounding in Lat. 43 19.70, Long. 70 28.55 was verified. Three 7 ft. hand lead soundings were obtained after ½ hour circling marker buoy on shoal. Vol. 11, pg. 27-28, pos. 86-88.
Underlined	The 14 ft. sounding underlined at Lat. 43 19.50

Long. 70 28.30 was not verified as such; however, 200 meters west of the charted position there is a 13½ ft. shoal. After ½ hour of investigation, six detached lead line positions of 13½, 14, 15, & 17 ft. were obtained.

Underlined — The 31 ft. sounding underlined and charted in Lat. 43 19.15, Long. 70 26.30 was verified by a 32½ ft. lead line sounding after 20 minutes of drifting around marker buoy on shoal. Vol. 14, pg. 7, pos. 85 y day.

Underlined — The 44 ft. sounding underlined and charted in Lat. 43 22.25, Long. 70 24.00 was not verified as such; however, at this position a 47 ft. hand lead sounding was obtained after 15 minutes circling shoal. Vol. 17, pg. 70, pos. 57 ga day.

Dashed Circle — The 26 ft. sounding enclosed in a dashed circle and charted in Lat. 43 23.15, Long. 70 24.30 was verified by a 21 foot lead line sounding after 15 minutes circling shoal. Vol. 17, pg. 6, pos. 53 d a day. 17' fathometer sdg.

Underlined — The 66 ft. sounding underlined and charted at Lat. 43 22.80, Long. 70 22.90 was not verified as such; however, a 68½ ft. lead line sounding was obtained after 20 minutes of drifting over shoal. Vol. 18, pg. 18, pos. 105 g a day.

N. Dangers and Shoals

Item	Location	Remarks
1. ✓	Lat. 43 20.45 Long. 70 ~~26~~ 27.65	Rock bares ~~3~~ 2 ft. at MLW. 50 meters east of above position there is a submerged rock in 5 ft. of water at MLW. These rocks should be charted. Vol. 1, pg. 50, pos. 58 & 60. SHOWN BY SYMBOL ON 1205 LAM
2.	Lat. 43 24.25 Long. 70 23.37	Submerged rock in 2 ft. of water at MLW. This should be charted. Vol. 18, pg. 65, pos. 115-118 h a day. ✓
3.	Lat. 43 24.30 Long. 70 23.45	Rock bares 5 ft. at MLW. This rock should be charted. Vol. 17, pg. 37, pos. 20-21 f a day.
4. ✓	Lat. 43 24.28 Long. 70 23.28	Submerged rock in 3 ft. of water at MLW. This should be charted. Vol. 18, pg. 68, pos. 129 h a day. ✓
5. ✓	ø43° 19.1' λ 70° 28.5'	→ 28' sdg. ✓

O. Coast Pilot Information

There is one change necessary in the Coast Pilot notes from Goosefare Bay to Wells Beach. This is reported in a Coast Pilot Report, a copy of which

is attached to this report.

P. Aids to Navigation

The positions of all floating aids to navigation located are as follows:

Name or No.	Lat. & Long.	Depth of Water	Vol. & Pos. No. (Sh. H-8255)
Can "3"	Lat. 43 20.18 Long. 70 28.53	40 ft.	Vol. 2, pg. 64, pos. 41 f day.
Bell "1"	Lat. 43 19.47 Long. 70 28.11	50 ft.	Vol. 5, pg. 63, pos. 6 k day.
2"CP" Whistle	Lat. 43 20.25 Long. 70 23.68	166 ft.	Vol. 8, pg. 9, pos. 87 n day.
Nun "6" Kennebunk River	Lat. 43 21.32 Long. 70 28.96	8 ft.	Vol. 13, pg. 13, pos. 39 w day.
Can "5"	Lat. 43 21.27 Long. 70 28.97	6 ft.	Vol. 13, pg. 13, pos. 38 w day.
Nun "8"	Lat. 43 21.44 Long. 70 28.62	6 ft.	Vol. 13, pg. 20, pos. 69 w day.
Can "3" Kennebunk River	Lat. 43 21.07 Long. 70 28.53	8 ft.	Vol. 13, pg. 23, pos. 86 w day.
Nun "4"	Lat. 43 21.05 Long. 70 28.49	6 ft.	Vol. 13, pg. 23, pos. 87 w day.
Nun "2"	Lat. 43 20.83 Long. 70 28.57	4 ft.	Vol. 13, pg. 24, pos. 92 w day.

See H.P.O. List of Aids

Q. Landmarks for Charts

There are no new landmarks for charts to report.

R. Geographical Names

There are no new geographical names to report.

Items S & T not used.

U - Y Miscellaneous, Difficulties Encountered with 808 Type Fathometer.

On the 808 type fathometers much trouble was experienced with the loose phasing head. There was a certain amount of play in the gear teeth on the initial adjustment slow motion screw that could not be eliminated. The loosness along with the slightly oval slots used to engage the phasing head at the various range settings caused the initial trace to jump considerably when the return to A-range was made after being on B-C or D ranges. It appeared that this variance was more or less constant. Instead of pro rating the total error from the time of leaving and return to A-range, one half of the error was applied to the first shift to B-range. The total error was applied over the remainder of the time if a second change of ranges was made (that is to C or D and back to B and A).

Field Procedure Deviating from Standard Practice

It will be noted throughout the sounding records that the abreviations LTLA or LTRA (line turns left or right about) was used. On the position following the turning about of a line the words "line begins" was used when instead the words "line resumes" is correct and should have been inserted. The latter procedure will be used on all future works.

It should also be noted that there were no soundings taken on the turns.

Latitude and Longitudes are recorded for the beginning of all lines, also for all Detached Positions; however, they are not recorded for the ends of the lines. This will be done on all work in the future.

Z. Tabulation of Applicable Data.

As noted in item H-Soundings, the Bar check tabulation Project 1355 will be transmitted as a separate report at a later date.

Respectfully submitted,

Clifford W. Tupper

Clifford W. Tupper
Lt. (jg) C&GS

ATTACHMENTS

Appendix A - List of Control Stations

B - Abstract of Velocity Corrections

C - Statistics

D - Tidal Note

E.- Coast Pilot Report

F - Approval Sheet

APPENDIX B

Fath. 101-S

Group 2 — 26 July - 28 July.

A =

from	to	corr.
0.0	9.0	(-)0.4
9.1	12.0	(-)0.2
12.1	55.0	0.0

B= (-)1.8

C = (-)2.8

D = (-)3.8

Fath. 121-S

Group 4 — 29 July - 20 Sept. and from Pos. 103 to end of z day Sept. 23-56.

A = 0.0

B =

from	to	corr.
35.0	60.0	(plus)0.8
60.1	90.0	(plus)0.5

C= (-)0.2

D = (-)1.2

E = (-)1.2

EDO - 202

Group 1 — 21 Sept. - 22 Sept. to pos. 86 y day.

A = range

from	to	corr.
0.0	22.0	0.0
22.1	31.0	(plus)0.2
31.1	38.0	(plus)0.4
38.1	46.0	(plus)0.6
46.1	53.0	(plus)0.8
53.1	66.0	(plus)1.0
66.1	70.0	(plus)1.5

B = (plus)1.0

EDO 202

Group 2 — 22 Sept. from 87 y day to 11 October

A = range

from	to	corr.
4.0	13.0	(-)0.8
13.1	26.0	(-)0.6
26.1	35.0	(-)0.4
35.1	42.0	(-)0.2
42.1	53.0	0.0
53.1	70.0	(plus)0.2

B = range

from	to	corr.
65.0	76.0	0.0
76.1	96.0	(plus)0.5
96.1	112.0	(plus)1.0
112.1	125.0	(plus)1.5

C = (plus)1.5

APPENDIX C

Stastics for Hydrographic Survey H-8255 (1955)

Date	Vol. No.	Day Letter	No. Pos. L. L.	No. Pos. Fath.	Stat. Mi. Hydro	Area Sq. Stat. Miles
26 July	1	a		38	6.4	
28	1	b		46	5.3	
29	1	c	14	112	4.9	
1 August	2	d		40	5.4	
2	2	e		121	15.2	
5	2 & 3	f	5	147	16.1	
10	4	g		134	22.2	
16	4 & 5	h		193	29.9	
17	5	j		57	7.6	
22	5 & 6	k	2	141	21.3	
23	6	l	28	78	7.8	
24	6 & 7	m	3	171	25.1	
25	7 & 8	n		147	25.8	
26	8 & 9	p		175	21.7	
29	9 & 10	q		188	31.6	
30	10	r		104	11.5	
6 September	10	s		103	16.1	
7	11	t	12	76	10.9	
8	11	u	15	121	16.1	
9	12	v	9	142	17.2	
12	13	w	17	92	7.1	
21	12	x	4	9	0.5	
22	14	y	7	70	7.5	
23	14	z	52	143	9.9	
26	13, 14 & 15	aa	5	112	12.0	
27	15	ba	12	122	12.6	
29	16	ca		160	21.8	
30	16 & 17	da	3	54	6.3	
3 October	17	ea	7	63	10.4	
4	17	fa	7	57	9.2	
10	17 & 18	ga		136	21.9	
11	18 & 19	ha		149	17.8	
Totals			202	3,501	455.1	13.0

APPENDIX D

Tidal Note for Hydrographic Survey H-8255 (1955)

Tidal data for reduction of soundings were obtained from portable automatic tide gages maintained on the town wharf in Kennebunkport, Maine near the Entrance to the Kennebunk River and on the town wharf on Bickford Island at Cape Porpoise. Since the results from these two gages were so nearly the same there was no time or height correction applied to the results from either gage. It is noted on the daily processing Stamp No. 38 which gage applied for work accomplished that date:

Tide Gage	Location	Lat. & Long.	MLW Reading
Kennebunkport	Entr. Kennebunk River	Lat. 43 20.9 Long. 70 28.4	1.7
Cape Porpoise	Bickford Island	Lat. 43 22.0 Long. 70 25.9	4.7

Refer to Director's letter: 36-58-15b, dated 3 February 1956.

	MLW Staff	Range of tide	Time diff. Ref. to Cape Porpoise
Kennebunkport	1.7 ft.	8.6 ft.	0 min.
Cape Porpoise	4.7 ft.	8.7 ft.	- - - - -
Biddeford Pool	0.6 ft.	8.7 ft.	(-) 5 min.

APPENDIX E
Coast Pilot Report
Atlantic Coast
Section A - St. Croix River to Cape Cod
Fifth (1950) Edition

Page 298. - Line 26; read:
their ends. The westerly wharf is in good repair and has a gasoline pump at its end. The easterly wharf is in ruins, only pilings remain.

Page 298. - Line 8 and 9; read:
3 feet. The bar at the entrance is subject to frequent changes. In 1955 a sand shoal with 6 foot soundings at MLW was about 200 yards east of the south jetty. The deep - -

Page 300. - Line 38; read:
3 feet at low water across the bar at the entrance, and 4 feet in a narrow buoyed channel inside - -

Page 301. - Line 6; read:
awash at lowest tides. A reef with 7 and 12 foot soundings on it is 0.5 to 0.7 miles south - -

Page 301. - Line 20; read:
Rocks, off Wells Beach, and covered at low water, and Bibb Rock, bare 2 feet at low - -

APPENDIX F

APPROVAL SHEET - - BOAT SHEET H-8255

PROJECT 1355

This is a basic survey and is approved as being complete and no additional field work is recommended. The Chief of Party has given daily supervision to the survey operations and records, and notes that they are satisfactory.

Tides and fathometer reducers have been entered and checked in the record volumes, and also on the fathograms. The fathograms were scanned prior to plotting the soundings on the boat sheet, and as a general rule, the soundings were reduced by actual tides as compared to predicted tides.

Much of the area listed in the remarks (preliminary review) items is in sandy areas that shift and change with various storms. It is recommended that the 12 ft. sounding (item 32) and the 21 ft. sounding (item 39) be deleted from the chart. The chart should be corrected to show the position and least depths found in item 40, 41, and the underlined items.

Marvin T. Paulson

Marvin T. Paulson
Chief of Party

NORFOLK PROCESSING OFFICE
LIST OF SIGNALS
H-8255

TRIANGULATION STATIONS

CUP	BREAKWATER COURT CUPOLA, 1941
CONE	KENNEBUNKPORT PIER LIGHT, 1953
GOAT	GOAT ISLAND LIGHTHOUSE, 1903-41
PORT	KENNEBUNKPORT ORTHODOX CHURCH, SPIRE, 1851-1928
ROOF	KENNYBUNK BEACH, ATLANTIS HOTEL, ROOF, 1943
STAGE	STAGE ISLAND, 1850-1928
WENT	WENTWORTHS CUPOLA, 1868-1928

WAT KENNYBUNKPORT WATER TANK, 1955
ø 43°22'13.966"(431.0m) λ 70°26'41.935"(944.2m) J.T. Gallahan

TOPOGRAPHIC STATIONS

SOURCE T-11160

Alp	Bob	Cam	Cat	Dix	Elf	Fly	Fry	Gun
Hoe	Job	Ken	Law	Leo	Mut	Moo	Nob	Nig
Ohm	Pol	Ply	Rib	Rio	Ski	Sea	Toy	Tub
Val	Vic	Wit						

SOURCE T-11162

Abe	Bad	Fix	Gab	Ire	Jon	Ola	Old	Ort
Tat								

SOURCE T-11163

Ace	Can	Day	Dog	Eat	Eva	Fat	Fig	Gig
Gal	Him	Ivy	Jet	Joy	Kit	Kin	Kis	Mop
Rat	Reef	Sap	Tie	Vane	Van	Wax	Yip	Yac
Zig								

SOURCE T-11163 (INSERT)

Hat	Irk	Jap	Kay	Lad	Man	Nat	Oak	Pot
Quo	Son							

NORFOLK PROCESSING OFFICE
FLOATING AIDS TO NAVIGATION

H-8255

BUOY	LATITUDE	LONGITUDE	DEPTH	POS. NO.	DATE
Kennebunkport Appr. Buoy 3	43-20.19	70-28.52	40'	41f	8/ 5/55
Cape Porpoise L'td. Whistle Buoy 2CP	43-20.25	70-23.68	165'	87n	8/25/55
Kennebunk River Buoy 5	43-21.27	70-28.47	5'	38w	9/12/55
Kennebunk River Buoy 6	43-21.32	70-28.47	7'	39w	9/12/55
Kennebunk River Buoy 8	43-21.44	70-28.62	6'	69w	9/12/55
Kennebunk River Buoy 3	43-21.53	70-28.08	7'	86w	9/12/55
Kennebunk River Buoy 4	43-21.48	70-28.04	6'	87w	9/12/55
Kennebunk River Buoy 2	43-20.83	70-28.56	4'	92w	9/12/55
Kennebunkport Appr. Bell Buoy 1	43-19.48	70-28.13		5ea	10/ 3/55

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8255 (Field No. ECFP-1355)

GENERAL

This appears to be an excellent basic survey in an area of very irregular bottom. No unusual problems or conditions were encountered during the smooth plot

Additional work, falling in the area covered by adjoining survey H-8163, was accomplished on this survey and is the subject of a seperate descriptive report.

SOUNDINGS

All fathograms were check scanned and the soundings reduced with templates in the Processing Office. Agreement at crossings was considered very good with the exception of "a" day. Soundings on this day averaged from one to two feet shoaler than surrounding hydrography. This discrepancy was believed to be caused by incorrect fathometer speed altho this condition is not indicated on the fathogram.

Possible strays or side echoes occur on adjacent lines, 96 to 97ca and 145 to 146ca, in the vicinity of Lat. 43-23.69 and Long. 70-22.94. These indications were not smooth plotted but were left for final interpretation by Wash. Office.

Norfolk, Va.
10 March 1958

Respectfully submitted,

Hugh L. Proffitt

Hugh L. Proffitt
Cartographer.

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Ships WAINWRIGHT AND HILGARD
General Delivery,
Southwest Harbor, Maine

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS

EXPRESS ADDRESS:

14 August 1958

To: The Director
Coast and Geodetic Survey
Department of Commerce Building
Washington 25, D. C.

Subject: Special Investigation, Survey H-8255, Kennebunk River Entrance, Maine

References: Instructions dated 18 March 1958 ref. 222/MEK S-2-WAGHI
Your letter dated 25 April 1958 22/MEK S-1-WAGHI

The above subject area was wire dragged on 12 August 1958 using a 1500 foot length drag when predicted tide was 1 foot. A light S'ly chop and S'ly breeze was present but did not affect the drag depth.

The drag was set out south of the Southern 17 foot sounding and pulled in a NW'ly direction. The effective depth using predicted tides was 16-1/2 feet and this depth hung lightly on the S'ly 17 foot shoal but pulled over and the drag was continued and cleared the N'ly 17 foot shoal without hanging. The effective depth was lowered to 18 feet and drag movement reversed. The drag hung on the N'ly 17 foot shoal and came to a wide V, then pulled over the shoal. The drag was continued and hung on the S'ly 17 foot shoal with a 19 foot effective depth.

Further investigation was not done because it was believed that the light hang on the S'ly shoal was very near the least depth or caused by kelp and could be used as cleared at 16 feet. The hang and pull over on the N'ly shoal was solid enough to be considered a hang so that each shoal was cleared and verified.

It was necessary to move approximately 40 lobster pots in order to drag these two shoals with even the short drag used.

Poor Copy

Tabulation of Data (predicted tides):

	Hang	Clear
S'ly 17 foot shoal	19'	16½' (light hang)
N'ly 17 foot shoal	18' (pulled over)	16½'

I believe the hydrography over these shoals did determine the least depth and that both shoals exist.

Norman E. Taylor
LCDR, USC&GS
Commanding

Poor Copy

GEOGRAPHIC NAMES

Survey No. H-8255

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Maine									BGN	1
Mousam River										2
Fishing Rock										3
Kennebunk River			(tide station)							4
Kennebunkport									BGN	5
Turbatt Creek										6
Cape Porpoise Harbor										7
Bickford Island			(tide station)							8
Cape Porpoise										9
Batson River										10
Goosefare Bay									BGN	11
Goose Rock Beach										12
Timber Island										13
Curtis Cove										14
Fortunes Rocks			(village)						BGN	15
										16
			Names approved 4-3-58							17
Tide station off sheet:					L. Heck					18
Biddeford Pool										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ..8255..

Records accompanying survey:

Boat sheets ..1..; sounding vols. ..19.; wire drag vols. ..2..;
(1 Boat sheet in 2 parts)
bomb vols. .....; graphic recorder rolls .15-Envelopes

special reports, etc. .1-Smooth sheet and 1-Descriptive report,
1-Wire drag overlay Ad. Wk. 1958.....

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

Number of positions on sheet		.....
Number of positions checked		.....
Number of positions revised		.....
Number of soundings revised (refers to depth only)		.....
Number of soundings erroneously spaced		.....
Number of signals erroneously plotted or transferred		.....
Topographic details	Time	.....
Junctions	Time	.....
Verification of soundings from graphic record	Time	.....

Verification by.....Total time ..... Date .....

Reviewed by..... Time ..... Date .....

M-2232-1

Form 712
(11-30-55)

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

8 April 1958

Chart Division: R. H. Carstens

Plane of reference approved in
19 volumes of sounding records for

HYDROGRAPHIC SHEET 8255

Locality Kennebunkport, Maine

Chief of Party: M. T. Paulson in 1955

Plane of reference is mean low water, reading

1.7 ft. on tide staff at Kennebunkport

18.6 ft. below B.M. 1 (1955)

4.8 ft. on tide staff at Cape Porpoise
22.1 ft. below B.M. 1 (1919)

Height of mean high water above plane of reference is:
Kennebunkport. . . 8.6 ft.
Cape Porpoise. . . 8.7 ft.

Condition of records satisfactory except as noted below:

Signature
Chief, Tides Branch

Comm-DC 34330

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

APPENDIX TO

DESCRIPTIVE REPORT

Type of Survey: Hydrographic - Additional

Field No.: PK-05253 Office No.: H-8255 ~~H-8163~~

LOCALITY

State: Maine

General locality: Cape Porpoise, Maine

Locality: Cape Porpoise, Maine

19X 55

CHIEF OF PARTY

Marvin T. Paulson

LIBRARY & ARCHIVES

DATE

B-1870-1 (1)

ADDITIONAL SURVEY

PROJECT 1355

Appendix to Hydrographic Descriptive Report
Sheet H-~~8163~~ 8255 (PK-05253)

Cape Porpoise, Maine

Additional Survey 1955
by

EAST COAST FIELD PARTY MARVIN T. PAULSON, CHIEF OF PARTY

* * * * * * * * * * * * *

Additional field work on boat sheet H-8163 as indicated after preliminary review was accomplished under the following instructions:

Supplemental Instructions - Project 1355
Ipswich Bay, Mass. to the Saco River, Maine
Letter Reference - 22/MEK-FP-East Coast, dated 16 Feb. 1955
Addressed to: OinC, East Coast Field Party

On sheet H-8163 (1953-54) the two areas indicated were investigated thoroughly on 26 and 30 September; however, the work was performed on sheet H-8255 and all data recorded in the record volumes for that sheet. Volume numbers and positions are indicated under the heading "Investigation and Results of Additional Survey". In both cases hand lead soundings were obtained and were in agreement with fathometer soundings obtained during the 1954 season.

Launch CS-82 was used during the additional investigation. An EDO 255 type graphic recorder number 202 having the transducer units in a fish which was mounted over the side of the launch immediately aft of the engine was used to verify the hand lead soundings.

Velocity corrections were obtained from a curve using mean values of the bar checks taken on sheet H-8255. Bar check tabulations for the entire project are included in a separate report labeled Bar Check Tabulations Project 1355, and will be transmitted at a latter date. Results from the curve were tabulated, entered, and checked in the sounding volumes. An abstract of velocity corrections is appended to this report.

Tide corrections were obtained from the portable automatic tide gage at Cape Porpoise, Maine lat. 43°-22.0' long. 20°-25.9'. These were scaled from the marigrams and entered directly in the volumes without applying a time or height difference. MLW corresponds to a staff reading of 4.7 ft. Smooth tide curves will be submitted in a separate report at a latter date.

Index corrections are entered and checked in the volumes when the initial reading varies from the 2.0 ft. setting.

Investigation on the two shoals indicated was performed on sheet H-8255 and all data recorded in the record volumes for that sheet. Volume numbers and positions are indicated in the results tabulated below:

In lat. 43 -20.96' long. 70 -25.43' the 17 foot shoal was investigated for 30 minutes, during which time the launch circled a float marker dropped on the shoal. A hand lead sounding of 18 ft. was obtained on the shoalest point. (volume 14 pg. 59 position 37-aa day sheet H-8255)

In lat. 43 -22.5' long. 70 -24.75' the 20 ft. shoal was investigated for 20 minutes in the same manner described previously. A hand lead sounding of 21 ft. was obtained on the shoalest point.

(Volume 17 page 6 position 54 da-day sheet H-8255)

There is no additional information regarding - Coast Pilot, Aids to navigation, landmarks for charts, or geographic names to report.

Respectfully submitted,

Clifford W. Tupper

Clifford W. Tupper
LTJG., C&GS

Attachments

Appendix A---List of Signals
B---Velocity Corrections
C---Approval Sheet

APPENDIX A

List of Signals used on Sheet H-8255

Name used in hydrographic survey	Origin
WAT - * - -	Kennebunkport Water Tank, 1955
GOAT - - -	Goat Island Lighthouse, 1903
JOY - - - -	T-1163
MUT - - - -	T-1160
VIC - - - -	T-1160

APPENDIX B

Abstract of Velocity Corrections

22 September to 11 October 1955

Group II

EDO 255 No.202

A-range

Corr.	from	to
-0.8	4.0	13.0
-0.6	13.1	26.0
-0.4	26.1	35.0
-0.2	35.1	42.0
0.0	42.1	53.0
+0.2	53.1	70.0

B-range

Corr.	from	to
0.0	65.0	76.0
+0.5	76.1	96.0
+1.0	96.1	112.0
+1.5	112.1	125.0

C-range

+1.5 entire range

APPENDIX C

APPROVAL SHEET

The records and boat sheet for additional hydrographic surveys on sheet H-8163 have been inspected and approved.

Marvin T. Paulson

Marvin T. Paulson
LCdr., C&GS
OinC, East Coast Field Party

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H- 8255

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.

2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.

3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.

4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.

5. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken.

6. All positions verified instrumentally were check marked in the sounding records.

7. All critical soundings are clear and legible and are a little larger than the adjacent soundings.

8. The metal protractor has been checked within the last three months.

9. The protracting and plotting of all bad crossings were verified.

10 All detached positions locating critical soundings, rocks or buoys were verified.

11. The boat sheet was compared with the smooth sheet.

12 The spacing of soundings as recorded in the records was closely followed.

13. The bottom characteristics were shown on outstanding shoals.

14. The reduction and plotting of doubtful soundings were checked.

15. The transfer of contemporary topographic information was carefully examined.

16. All junctions were transferred and overlapping curves made identical.

17. The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.

18. The depth curves have been inspected before inking.

19. All triangulation stations and transfer of topographic and hydrographic signals were checked.

20. Heights of rocks were checked against range of tide.

21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.

22. Unnecessary pencil notes have been removed.

23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.

24. The low water line and delineation of shoal areas have been properly shown.

25. Degree and minutes values and symbols have been checked.

26. Questionable soundings have been checked on the fathograms.

27. Source of shoreline and signals (when not given in report).

28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.

29. All aids located, with those on contemporary topographic sheets, have been shown on survey.

30. Depth curves were satisfactory except as follows:

31. Sounding line crossings were satisfactory except as follows:

32. Junctions with contemporary surveys were satisfactory except as follows:

33. Condition of sounding records was satisfactory except as follows:

34. The protracting was satisfactory except as follows:

35. The field plotting of soundings was satisfactory except as follows:

36. Notes to reviewer:

Verified by Date

RHC

Form 712
(11-30-55)

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

22 October 1958

Chart Division: R. H. Carstens:

Plane of reference approved in
2 volumes of ~~XXXXXXXXXXXXXXXX~~ wire drag records for

HYDROGRAPHIC SHEET 8255 Ad. Wk.

Locality Kennebunk River Entrance, Maine

Chief of Party: N. E. Taylor in 1958

Plane of reference is mean low water

ft. on tide staff at

ft. below B.M.

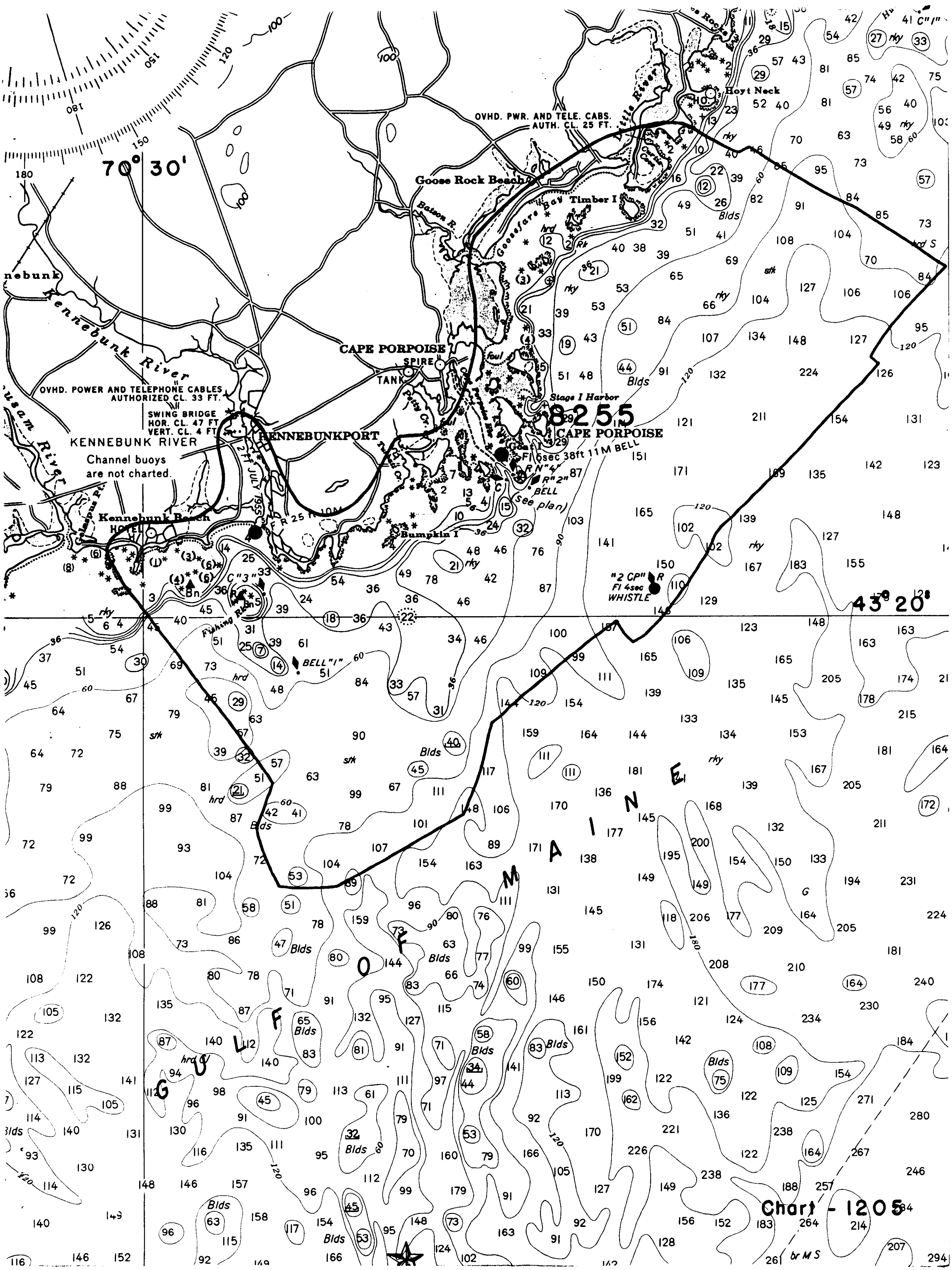
Height of mean high water above plane of reference is 8.6 feet.

Condition of records satisfactory except as noted below:

William Hopson
Signature

Chief, Tides Branch

Comm-DC 34330


70° 30'
43° 20'
OVHD. PWR. AND TELE. CABS.
AUTH. CL. 25 FT.
Goose Rock Beach
Goosefare Bay
Timber I
Hoyt Neck
Little River
Batson R.
Kennebunk River
Mousam River
CAPE PORPOISE
SPIRE
TANK
OVHD. POWER AND TELEPHONE CABLES
AUTHORIZED CL. 33 FT.
SWING BRIDGE
HOR. CL. 47 FT.
VERT. CL. 4 FT.
KENNEBUNKPORT
KENNEBUNK RIVER
Channel buoys
are not charted.
Kennebunk Beach
HOTEL
Stage I Harbor
8255
CAPE PORPOISE
Goat I
Fl 6sec 38ft 11M BELL
BELL
See plan
Bumpkin I
"2 CP"
Fl 4sec
WHISTLE
BELL "1"
Fishing Rks
GULF OF MAINE
Chart - 1205

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8255

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
4/22/58	1205	Stan	Before ~~After~~ Verification and Review Partially applied.
5/13/59	1106	Eaton	Before ~~After~~ Verification and Review
10/19/66	1205 inset	John P. Wein	Before ~~After~~ Verification and Review Part. applied to Kennebunk River inset.
~~4-6-85~~	~~13286~~ 1205		
4-6-85	13286	Ken Rancher	Before ~~After~~ Verification and Review Adequately Applied
			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

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.