

# 8258

Diag. Cht. No. 1205-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ECFP-05255 Office No. H-8258

### LOCALITY

State Maine

General locality Saco River

Locality Jordan Point to Factory Island

19 55

CHIEF OF PARTY

M. T. Paulson

LIBRARY & ARCHIVES

DATE February 19, 1958

B-1870-1 (1)

# 8258

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-8258

Field No. ECFP-05255

State MAINE

General locality Saco River

Locality Jordan Pt. to Factory Island

Scale 1:5,000 Date of survey 12 Oct. thru 11 Nov. 1955

Instructions dated 6 Mar. 1953; 29 Jan. 1954; 16 Feb. 1955

Vessel EAST COAST FIELD PARTY (LAUNCHES CS-82 & CS-172)

Chief of party MARVIN T. PAULSON

Surveyed by C.W. TUPPER

Soundings taken by ~~XXXXXXXX~~, graphic recorder, hand lead, ~~WXX~~ SOUNDING POLE

Fathograms scaled by PARTY PERSONNEL

Fathograms checked by NORFOLK DISTRICT OFFICE

Protracted by W.L. JONNS (N.D.O.)

Soundings penciled by W.L. JONNS

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

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

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DESCRIPTIVE REPORT  
TO ACCOMPANY

Hydrographic Sheet H-8258 (Field No. ECFP-05255)  
Saco River

EAST COAST FIELD PARTY

MARVIN T. PAULSON, CHIEF OF PARTY

PROJECT 1355

SCALE 1:5,000

12 October - 11 November 1955

\* \* \* \* \*

A. PROJECT

A basic survey of the outer coast from Ipswich, Massachusetts to the Saco River, Maine was 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 AND DATES

Field work on sheet H-8258 (ECFP-05255) commenced on 12 October 1955 and terminated on 11 November 1955. Five days of hydrography was accomplished during this period. Four days being done by Launch CS-82 and one day by Launch CS-172.

Hydrography was completed from a point 0.7 miles inside the jettied entrance of the river upstream to the rapids and dam at Biddeford and Saco.

The southern limit of the Saco River survey makes satisfactory junction and overlap with contemporary survey H-8257 (ECFP-05155). (unverified)  
(This junction verified, inked, and completed. See # 32, Verific's report.)

C. VESSELS AND EQUIPMENT

Two launches were used on this sheet. Launch CS-82 and aluminum launch CS-172 were the two vessels employed. Both launches were operated from moorings at Biddeford Pool on Fletcher Neck.

Launch CS-82 was operated at its standard sounding speed of 1500 to 1600 r.p.m. unless noted otherwise in the record volume. At this speed she had a turning radius of 15 meters and a speed of approximately 8 knots. Soundings were obtained with 808 type fathometers. The transducers were mounted inboard just aft of the engine. Fathometer No. 121-S and No. 101-S were the two employed on this survey. A note explaining difficulties encountered with loose phasing heads will be found under item U-Y Miscellaneous.

Launch CS-172, the second launch used on this survey, was operated at a standard sounding speed of 2200 - 2500 unless otherwise noted in the record volume. At this speed she had a turning radius

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of 10 - 15 meters. Soundings were obtained with an 808 type fathometer no 77. The transducer units were mounted inboard forward of the engine. A note explaining difficulties encountered with loose phasing heads will be found under item U - Y MISCELLANEOUS.

#### D. TIDES AND CURRENT

Portable automatic tide gages were maintained at the following places:

1. Bickford Island, Cape Porpoise. (East of Kennebunkport) ;
2. Coast Guard Pier, Biddeford Pool.

A tide staff was also installed at the upper end of the survey in the river near survey signal CAB. Tidal data for this sheet are taken from the gage at Biddeford Pool as noted in the Processing Stamp No. 38 at the end of each day. A tidal note is appended to this report. All smooth tide curves and hourly heights for project 1355 will be submitted in a separate report at a later date.

#### E. SMOOTH SHEET

The smooth sheet <sup>was</sup> ~~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-11573 and T-11574 by photogrammetrist Richard H. Houlder. These were then transferred by pricking through to the boat sheet.

#### G. SHORELINE AND TOPOGRAPHY

The shoreline and topographic details were transferred from topographic blue line manuscripts T-11573 and T-11574. <sup>41953-54</sup> ~~& T-11575A~~ <sup>REVIEW</sup> <sub>TP1</sub>.

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

Areas not accessible by launch due to foul bottom are outlined and labeled as such. In all other areas the low water line is determined by soundings.

#### H. SOUNDINGS

Soundings were obtained with 808 type graphic recorders 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 record volumes, and an abstract of the velocity corrections is appended to this report. Tabulations of all bar check data along with velocity correction curves for project 1355 will be submitted in a separate report at a later date.



## 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

This survey is considered adequate to supersede prior surveys for charting. Junction with prior and contemporary surveys mentioned in item B. SURVEY LIMITS AND DATES, were satisfactory and depth curves can be adequately drawn at junctions.

## K. CROSS LINES

Cross lines were run to the extent of 5% of the regular system of sounding lines excluding development and agreement was satisfactory.

## L. COMPARISON WITH PRIOR SURVEYS

A comparison with prior surveys H-4304 (scale 1:5000, 1923) and chart 231 shows some discrepancies. The comparison with prior surveys together with the preliminary review on chart 231, are listed in the following item M.

Sec 75  
Review

## M. COMPARISON WITH CHART AND PRIOR SURVEYS

The following items refer to the preliminary review of chart 231 dated 15 March 1954. Item numbers 9 and 10 along with one feature marked by a dashed circle are discussed under this heading:

### ITEM NO. ON PRELIMINARY REVIEW.

### REMARKS

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The ~~3½~~ foot sounding at the south edge of the channel at Lat. 43 28.76, Long. 70 24.92 was not verified. A ~~12~~ foot sounding was obtained on line at the ~~exact~~ location mentioned and a 9 and ~~7~~ foot sounding was obtained on line only 20 meters south of the above location. There were no Tide Rips noted in the area during strong currents. The shoal; however, is buoyed properly for best navigation.  
Vol. 1, pg. 52, pos. 28-29 b-day, Launch CS-82.  
Vol. 2, pg. 46, pos. 92-93 c-day, Launch Cs-82.

Not adequate  
investigated

6' sdg is approx  
6.5m. SE of  
charted 3½' sdg.

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The 3 foot reported depth at Lat. 43 28.92, Long. 70 25.22 was not verified as such; however, two 3.78 foot soundings were obtained on line during hydrography. There was no lead line sounding obtained; however, the bottom is relatively flat in the general location.  
Vol. 2, pg. 32, pos. 34-35 c-day.

P.S shows  
3-4 ft  
sdgs in  
vicinity  
of charted  
3 ft.

ITEM NO. ON  
PRELIMINARY  
REVIEW

REMARKS

DASHED CIRCLE

The pier enclosed in a dashed circle in Lat. 43 27.75, Long. 70 23.00 is now in ruins. Only the pilings remain. Just 80 meters west of the pier in ruins there is a new pier extending off-shore 175 meters from the high water line. On the off shore end, and in the center of the pier, there is a hoist frame. This frame is a signal and was located by photogrammetry on sheet T-11574.

N. DANGERS AND SHOALS

ITEM    LOCATION

REMARKS

- |    |   |   |
|----|---|---|
| 1. | Lat. 43 29.56 ✓<br>Long. 70 26.42 ✓               | Remains of an old boiler bares <sup>2</sup> 2½ feet at MLW. Vol. 1, pg. 24, pos. 63 a-day. ✓  |
| 2. | Lat. 43 29.60 <sup>59</sup> ✓<br>Long. 70 26.48 ✓ | Submerged tree limb bares <sup>3</sup> 4 feet at MLW. Vol. 1, pg. 25, pos. 64 a-day. ✓  |
| 3. | Lat. 43 29.60 ✓<br>Long. 70 26.70 ✓               | Sand shoal in this area bares from <sup>3</sup> 4 feet on the south end to 5 feet on the north end. Vol. 1, pg. 31-32, pos. 82-86 a-day. ✓  |
| 4. | Lat. 43 27.75 ✓<br>Long. 70 23.40 ✓               | Sand shoal indicated on <sup>smooth</sup> sheet bares from <sup>2</sup> 2 to <sup>3</sup> 3 feet at MLW. This general area <sup>has</sup> changed considerably from the chart and should be shown as such. This shoal outlined in Vol. 1, pg. 25, pos. 93-97, a-day, Launch CS-172. ✓ |

O. COAST PILOT INFORMATION

There is one change necessary in the Coast Pilot notes covering the Saco River. This is reported in a Coast Pilot Report, a copy of which is attached to this report. ✓

P. AIDS TO NAVIGATION (See NPO List)

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

<u>NAME OR NUMBER</u>	<u>LAT &amp; LONG</u>	<u>DEPTH OF WATER</u>	<u>VOL, POS NO, SH. H-8258</u>
Nun "10" / RED	Lat. 43 28.43 ✓ Long. 70 24.35 ✓	10 feet	Vol. 3, pge 11, pos. 75, d-day. ✓
Can "5" / BLACK	Lat. 43 28.77 ✓ Long. 70 24.90 ✓	<sup>15</sup> 16 feet	Vol. 2, pg. 52, pos. 118, c-day. ✓

Q. LANDMARKS FOR CHARTS

There are no new landmarks for charts to report.

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## R. GEOGRAPHIC NAMES

There are no new geographic names to report.

## ITEMS S THROUGH T NOT USED

## U THROUGH Y - MISCELLANEOUS

### 1. Difficulties Encountered with 808 type Fathometers:

On the 808 type fathometers much trouble was experienced with loose phasing heads. There was a certain amount of play in the gear teeth on the initial adjustment screw that could not be eliminated. This looseness along with the slightly oval slots that 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. This jump varied according to the pressure used in setting the head to the right after engaging the oval slot at the various ranges.

*Only  
A-range  
used on  
this sur-  
vey.*

It appeared that this variance of initial trace was more or less constant although not entirely so. Instead of pro-rating the total error from the time of leaving until the time of returning to A-range,  $\frac{1}{2}$  the error was applied to the first shift to B-range, then the total error was applied to the remainder of the time if a second change of range was made (that is to C-D and return to B and A-range).

### 2. Field Procedure that Deviate from Standard Procedures:

a. It will be noted throughout the record volumes that the abbreviations LTLA and LTRA (Line turns left and right about) were used at the end of those lines that turned 180 degrees in direction. On the position following these abbreviations the words Line Begins are written in the remarks column when actually the words Line Resumes should be in their place. On all future work the latter method will be employed.

b. Latitudes and Longitudes are recorded for the beginning of all lines as well as for all detached positions. It will be noted that they are not recorded for the end of the lines. This latter practice will be employed on all future work.

## Z. TABULATION OF APPLICABLE DATA

As noted in item H. SOUNDINGS, the Bar Check Tabulations for the entire project 1355 will be submitted as a separate report at a later date.

Respectfully submitted,

*Clifford W. Tupper*  
Clifford W. Tupper  
LTjg, C&GS

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ATTACHMENTS

- APPENDIX A - LIST OF CONTROL STATIONS - PAGE 7
- APPENDIX B - ABSTRACT OF VELOCITY CORRECTIONS - PAGE 8
- APPENDIX C - STATISTICS
- APPENDIX D - TIDAL NOTE
- APPENDIX E - COAST PILOT REPORT
- APPENDIX F - APPROVAL SHEET

✓

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NORFOLK PROCESSING OFFICE  
LIST OF SIGNALS  
... H-8258. ....

TRIANGULATION STATIONS

TACK      BIDDEFORD PEPPERELL CO., STACK, 1941

TOPOGRAPHIC STATIONS

SOURCE T-11573

Abe	All	Bad	Bar	Bus	Cab	Cat	Chi	Cow	End
Hip	Hoe	How	Ire	Lad	Lag	Nat	Pol	Run	Spi
Tag	Ten	Tow	Van	Wer					

SOURCE T-11574

Add	Aim	Ant	Dot	Eat	Edd	Fer	Few	Fin	Gab
Gin	Guy	Hid	Him	Ivy	Jam	Jap	Jon	Kay	Lax
Log	Map	Mut	Nab	Old	Out	Pea	Pin	Pip	Poo
Pun	Quo	Ray	Red	Sag	She	Toy	Wax	Yel	Zip

HYDROGRAPHIC STATIONS

Yap      Vol. 2, Pages 4, 7, 48

✓

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NORFOLK PROCESSING OFFICE  
LIST OF FLOATING AIDS  
H-8258

<u>BUOY</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH</u>	<u>POS. NO.</u>	<u>DATE</u>
SACO RIVER					
Jetty Buoy 10 <sup>RED</sup> (NUN)	43-28.43	70-24.35 ✓	10' ✓	75d	2/11/55 ✓
Buoy 5 ✓ <sup>BLACK</sup> (can)	43-28.77	70-24.90 ✓	15' ✓	118c	10/24/55 ✓

✓

/ 1

APPENDIX B  
PROJECT 1355

ABSTRACT OF VELOCITY CORRECTIONS SHEET H-8258 (05255)

LAUNCH CS-82 AND CS-172

12 OCTOBER TO 11 NOVEMBER 1955

LAUNCH CS-82

Fath. 121-S. Group V

12 Oct. to 13 Oct.

A-Range

	from	to	corr.
	0.0	12.1	(+) 0.2
	12.1	15.0	(+) 0.0
	15.1	20.0	(-) 0.2
	20.1	25.0	(-) 0.4
	25.1	30.0	(-) 0.6
	30.1	40.0	(-) 0.8
	40.1	50.0	(-) 1.0
	50.1	end	(-) 1.2

Fath. 101-S. Group III

24 Oct. to 2 Nov.

A-Range.

	from	to	corr.
	3.0	18.0	(+) 0.4
	18.1	22.0	(+) 0.2
	22.1	55.0	0.0

-----  
LAUNCH CS-172

Fath. 77. Group II

11 Nov.

A-Range

	from	to	corr.
	2.0	18.0	(+) 0.2
	18.1	55.0	0.0

12 ✓

APPENDIX C

STATISTICS FOR HYDROGRAPHIC SURVEY H-8258 (1955)

LAUNCHES CS-82 AND CS-172

PROJECT 1355

<u>DATE</u>	<u>VOL #.</u>	<u>DAY LETTER</u>	<u>NO. POSITIONS</u> <u>LL FATH.</u>	<u>STAT. MI.</u> <u>HYDRO</u>	<u>AREA SQ.*</u> <u>STAT. MI.</u>
-------------	---------------	-------------------	---	----------------------------------	--------------------------------------

LAUNCH CS-82

12 October	1	a	119	9.2	
13 "	1 & 2	b	140	11.5	
24 "	2	c	145	11.5	
2 November	2 & 3	d	145	10.5	
TOTALS			549	42.7	

-----  
LAUNCH CS - 172

11 November	1	a	100	5.6	
TOTALS			100	5.6	

\* Total area in square statute miles for entire sheet equals 1.0.

Total positions = 649



APPENDIX D

TIDAL NOTE FOR HYDROGRAPHIC SURVEY H-8258 (1955)

Tidal data for reduction of soundings were obtained from the portable automatic tide gage maintained at Biddeford Pool. The location of the tide gage is as follows:

<u>Tide Gage</u>	<u>Location</u>	<u>Lat. &amp; Long.</u>	<u>MLW Reading</u>
Biddeford Pool	Entrance to the Pool	Lat. 43 26.8 Long. 70 21.4	0.6 on staff.

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

	<u>MLW Staff</u>	<u>Range of Tide</u>	<u>Time diff. Ref. to Cape Porpoise</u>
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.

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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 sound-  
ings 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 - -

15  
APPENDIX F

APPROVAL SHEET -- BOAT SHEET H-8258

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 operation and records, and notes that they are satisfactory except as noted in the Descriptive Report.

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

It should be noted that the Saco River is continually changing its course, and shoal areas shift more or less each year due to ice action and storm tide currents.

*Marvin T. Paulson*

Marvin T. Paulson  
Chief of Party

NORFOLK PROCESSING OFFICE  
ADDENDUM  
To Accompany

HYDROGRAPHIC SURVEY H-8258 (Field No. ECFP-05255)

GENERAL


This appears to be an excellent basic survey and no unusual conditions were encountered during the smooth plot. There are a few areas where additional developement would have been helpful in positioning depth curves as the bottom is very irregular.

SOUNDINGS

All fathograms were check scanned and the soundings reduced / with templates by personnel of the Norfolk Office. Soundings checked very well at crossings.

Norfolk, Va.  
11 February 1958

Respectfully submitted,

  
Hugh L. Proffitt  
Cartographer.

## GEOGRAPHIC NAMES

Survey No. H-8258

GEOGRAPHIC NAMES										
Survey No. H-8258										
Name on Survey										
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
A	B	C	D	E	F	G	H	K		
<u>Maine</u>										1
<u>Gulf of Maine</u>			(would be preferable as general locality)							2
<u>Saco River</u>										3
<u>Windmill Point</u>										4
<u>Chandler Point</u>										5
<u>Chase Point</u>										6
<u>Gordon Point</u>										7
<u>Cow Island</u>										8
<u>Biddeford</u>			(tide station)							9
<u>Factory Island</u>										10
<u>Saco</u>										11
					Names approved 3-18-58					12
					L. Heck					13
<u>Tide stations off sheet:</u>										14
<u>Bickford Island, Cape Porpoise</u>										15
<u>Biddeford Pool</u>										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27
										M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .8258...

Records accompanying survey:

Boat sheets .1...; sounding vols. .4...; wire drag vols. ....;  
bomb vols. ....; graphic recorder rolls .3-Envelopes  
special reports, etc. .1-Smooth sheet, and 1-Descriptive report.  
.....

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

Number of positions on sheet	649.
Number of positions checked	10.
Number of positions revised	0.
Number of soundings revised (refers to depth only)	Several hundreds of depths revised due to datum change.
Number of soundings erroneously spaced	0.
Number of signals erroneously plotted or transferred	0.
Topographic details	Time 3 hrs.
Junctions	Time 2 hrs.
Verification of soundings from graphic record	Time 5 hrs.
Verification by <i>A. Rose</i>	Total time 123 hrs. Date 11-21-'58
Reviewed by <i>W. J. ...</i>	Time 48 Date 4-17-59

VDR

DIVISION OF CHARTS

Review Section - Nautical Chart Branch

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8258

Maine, Saco River, Jordan Pt. to  
Factory Island

FIELD NO. ECFP-05255

Surveyed - Oct.-Nov. 1955

Scale 1:5,000

Project No. 1355

Soundings:

Control:

808 Depth Recorder  
Hand Lead  
Sounding Pole

Sextant fixes on  
shore signals

Chief of Party - M. T. Paulson  
Surveyed by - C. W. Tupper  
Protracted by W. L. Jonns  
Soundings plotted by - W. L. Jonns  
Verified and inked by - S. Rose  
Reviewed by - I. M. Zeskind  
Inspected by - R. H. Carstens

4/16/59

1. Shoreline and Control

The shoreline originates with reviewed air photographic surveys T-11573, T-11574 and T-11575 of 1953-54.

The source of the signals is given in the Descriptive Report.

2. Sounding Line Crossings

The sounding line crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves supplemented by the 3-ft., 24 ft., and 36 ft. curves, are adequately delineated.

The bottom is very irregular, Submarine features such as shoals, deeps, ledges, reefs and mud and sand flats contribute to the bottom configuration.

4. Junctions with Contemporary Surveys

An adequate junction was effected with H-8257 (1955) on the southeast. The survey extends to the limits of the Project on the northwest.

5. Comparison with Prior Surveys

H-1634b (1875)	1:10,000	H-941 (1867)	1:5,000
H-942 (1867)	1:5,000	H-882 (1866)	1:5,000

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A comparison between the prior and present surveys reveals changes in bottom configuration and shoreline. These changes are attributed to natural and man-made causes, such as the action of the current and ice on the bottom, the construction of piers, bulkheads, breakwaters and jetties. The natural channel in the river has shifted its location in several places with the resultant changes in depths. In that area which lies south of the breakwater in the vicinity of lat.  $43^{\circ}29.47'$ , long.  $70^{\circ}26.55'$ , which extends from shore to Cow Island, the bottom has shoaled as much as 3 ft. That portion of the channel which falls on the present survey between the breakwaters at the entrance to Saco River has moved northward about 50 meters since the construction of the breakwaters. The prior surveys show a controlling depth of  $3 \frac{3}{4}$  ft. at the entrance to Saco River, whereas the present survey shows depths of 6 ft. here.

The present survey is adequate to supersede the prior surveys, within the common area.

6. Comparison with Chart 231 (Latest print date 9-29-58)

A. Hydrography

The charted hydrography originates with the prior surveys previously discussed which needs no further consideration, critical depths from the boat sheet (Bp 53202) and the smooth sheet of the present survey prior to verification and review, and the U.S. Corps of Engineers surveys accomplished between 1929-1936 incl.

The rock awash charted in lat.  $43^{\circ}27.68'$ , long.  $70^{\circ}23.34'$  should be deleted from the chart. This feature originates with the present survey prior to verification and review where it was erroneously located.



(H-8258) - 3

The rock awash actually falls about 20 meters eastward where a ledge is shown on the present survey.

Only minor differences between the charted and present survey depths of 1-4 ft. were noted, except for the following:

The  $3\frac{1}{2}$  ft. sounding charted in lat.  $43^{\circ}28.77'$  long.  $70^{\circ}24.92'$  from the U.S. Corps of Engineers' survey of 1938 (Bp 31688) falls in present depths of 11-12 ft. The sounding is not considered disproved by the present survey and should, therefore, be retained on the chart.

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

#### B. Aids to Navigation

The present survey positions of aids to navigation are in substantial agreement with the charted positions and adequately mark the features intended. However, the charted nomenclature of the following buoys was revised subsequent (HON to M 42, 1958) to the present survey:

Chart	Location		Present Survey
	<u>Latitude</u>	<u>Longitude</u>	
C-9	$43^{\circ}28.77'$	$70^{\circ}24.90'$	C-5
N-8	$43^{\circ}28.43'$	$70^{\circ}24.35'$	C-10

#### 7. Condition of Survey

- (a) The sounding records and Descriptive Report are complete and comprehensive.
- (b) The smooth-plotting was accurately done.
- (c) Revisions were required in tide reducers applied to approximately three-fourths of the soundings. Apparently an error of 1-ft. was made by the field party in the use of the MLW staff reading at Biddeford Pool in determining the tide corrections.

(H-8258) - 4

8. Compliance with Project Instructions


The survey adequately complies with the Project Instructions, except that the recorded information was not adequate to prove or disprove the  $3\frac{1}{2}$  ft. sounding mentioned in item 9 of the Preliminary Review.

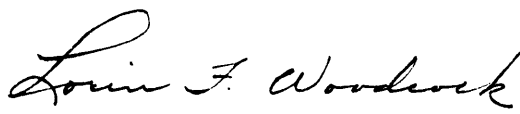
9. Additional Field Work Recommended

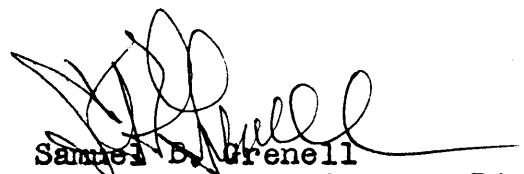
Additional development should be made in the vicinity of lat.  $43^{\circ}28.76'$ , long.  $70^{\circ}24.92'$ , to conclusively prove or disprove the  $3\frac{1}{2}$  ft. sounding charted from the Corps of Engineers' survey. Except in this area the present survey is considered basic.

EXAMINED AND APPROVED:

  
Max G. Ricketts, Chief  
Nautical Chart Branch

  
Ernest B. Lewey  
Chief, Chart Division

  
Lorin F. Woodcock  
Chief, Hydrographic Branch

  
Samuel B. Grenell  
Chief, Coastal Surveys Div.

25-RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

1 May 1958

Plane of reference approved in  
4 volumes of sounding records for

HYDROGRAPHIC SHEET 8258

Locality Saco River, Maine

Chief of Party: M. T. Paulson

Plane of reference is mean low water, reading

0.6 ft. on tide staff at Biddeford Pool

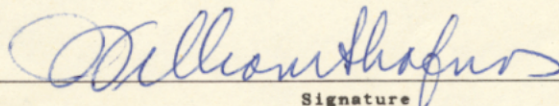
12.8 ft. below B.M. 1 (1955)

Height of mean high water above plane of reference is 8.7 feet.

Condition of records satisfactory except as noted below:

NOTE: Tide reducers for the positions listed below have been revised in red and verified:

<u>Vol.</u>	<u>Positions</u>
2	1c-42d (purple)
3	43d-145d (purple)
4	1a-100a (blue)



Signature

Chief, Tides Branch

See attached sheet.



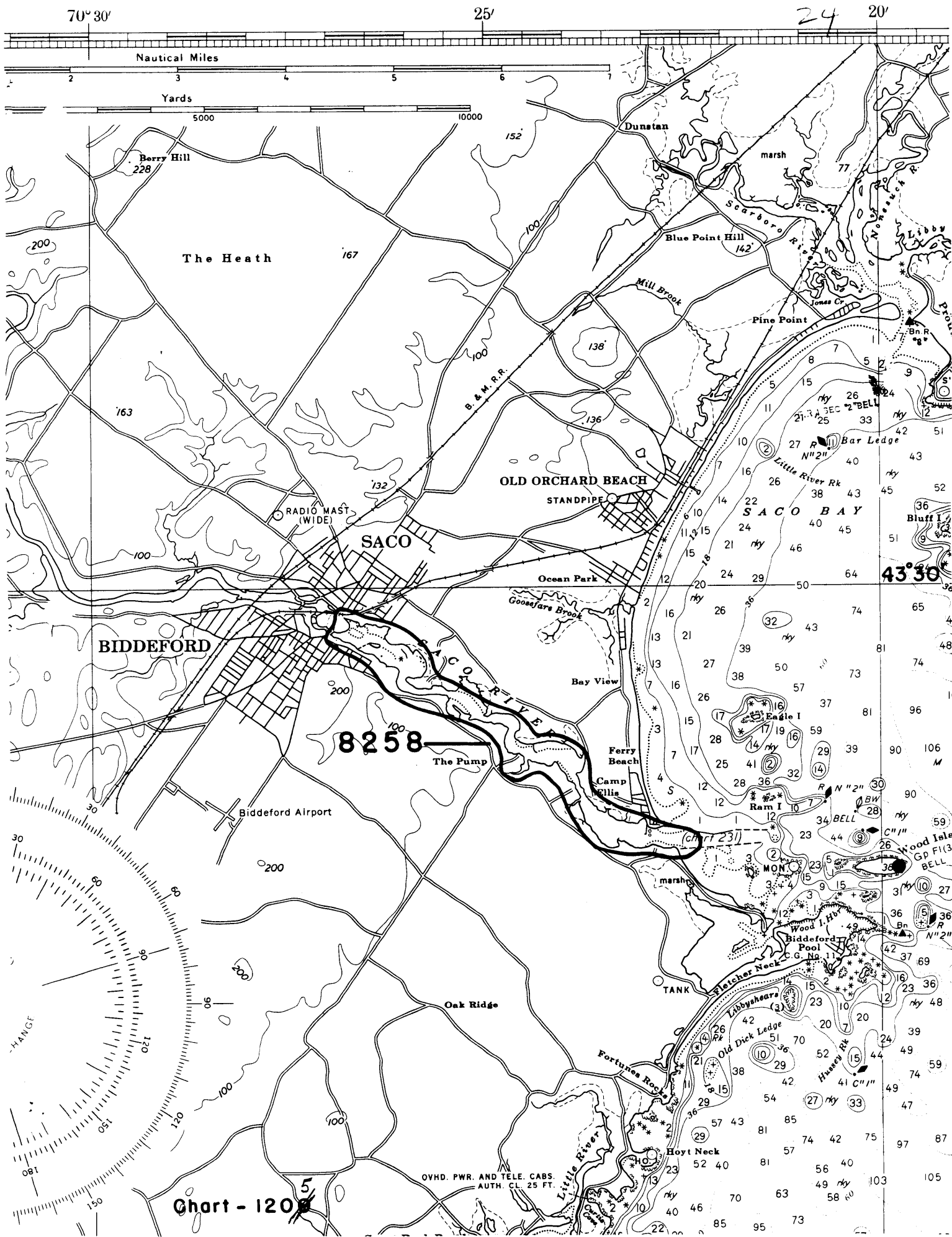


Chart - 120

OVHD. PWR. AND TELE. CABS.  
AUTH. CL. 25 FT.

~~maghark meant~~  
"tide"

The "reduced soundings" should be changed as listed below:

<u>Positions</u>	<u>Change</u>	
1c-145d (purple)	Decrease by 1 foot	} questioned this information S. Rose
1a-38a	Increase by 2 feet	
43a-65a	Increase by 1 foot	
75a-94a	Increase by 1 foot	
95a-100a	Increase by 2 feet	
Nov. 11, 1955 Vol. No. 4 "a" day (blue)		
	DECREASE	

17-1189 -

<u>Positions</u>	<u>Change</u>
1d-14d	Decrease by 0.6 foot
15d-50d	Decrease by 0.8 foot
56a-60a	Increase by 0.8 foot
61a-65a	Increase by 0.6 foot
66a-67a	Increase by 0.4 foot
68a-75a	Decrease by 0.4 foot
76a-81a	Decrease by 0.6 foot
82a-85a	Decrease by 0.8 foot
87a-90a	Decrease by 1.2 feet
91a-94a	Decrease by 1.4 feet
95a-97a	Decrease by 1.6 feet
98a-100a	Decrease by 2.0 feet
"a" day (blue)	

g.a.

↑  
used these correctors  
S. Rose

## NAUTICAL CHARTS BRANCH

SURVEY NO. H-8258

## Record of Application to Charts

[illegible]

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.