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Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic
Field No. 2-b Office No. H-6803

LOCALITY

State Maine
General locality Kennebec River
Gilbert Parker
Locality ~~Bluff~~ Head to ~~Bluff~~ Head

1942

CHIEF OF PARTY

C. D. Meeney

LIBRARY & ARCHIVES

DATE June 9, 1943

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. H6803

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-6803

Field No. 2 b

State MAINE

General locality KENNEBEC RIVER

Locality ~~PARKER HEAD TO BUFT HEAD~~ Gilbert Head to Parker Head

Scale 1-5,000 Date of survey May - October, 1942

Instructions dated March 11, 1942

Vessel LYDONIA

Chief of party C.D. Meaney

Surveyed by LYDONIA Ship's Officers

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

Protracted by A. Kaupa

Soundings penciled by A. Kaupa

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

REMARKS: This sheet was processed at the Norfolk Processing Office.

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET

NO. 6803

INSTRUCTIONS:

The authority for surveys of this area are contained in the following:

Supplemental Instructions	March 11, 1942 ✓
Supplemental Instructions	May 16, 1942 (currents)
Supplemental Instructions	June 15, 1942
Supplemental Instructions	Jan. 16, 1942 (currents)
Outline of areas to be dragged	July 10, 1942 (wire drag)
Field Work	September 14, 1942

SURVEYS METHODS:

Hydrography of the Kennebec River and the approaches to the river, executed in accordance with the Director's Instructions listed above was controlled by three point fixes on U. S. Engineers and U. S. Coast & Geodetic Survey triangulation stations and topographic stations located during 1942 by graphic control from these stations.

Submarine Signal Corporation 808 Depth Recorders mounted in Launches 79 and 82 were used for sounding. In general, bar-checks were very difficult to observe in the Kennebec River because currents are very strong and the current at different depths during certain stages of the tide seems to be setting in different directions. Current observations indicate that during slack water on the surface there is a current near the bottom. To furnish additional information a midchannel sounding line was run with the LYDONIA. A Dorsey No. 1 fathometer was used for sounding from the vicinity of Parker Flats to the vicinity of Bath. Additional comparisons between 808 Depth Recorder soundings and Dorsey Fathometer soundings were observed on Sheet 3 and near the junction of Sheet 3 and Sheet H-6730.

To furnish additional information for correcting soundings several serial temperatures were observed in the Kennebec River. The lowest specific gravity observed in the Kennebec River was 1.0032, the highest specific gravity observed was 1.0229. The average specific gravity observed in the Kennebec River is approximately 1.01.

HYDROGRAPHY:

Launch hydrography on these sheets was executed by Lieut. Wilbur R. Porter in charge of Launch 82 and Lts. C. A. George and H. G. Conerly in charge of Launch 79.

CHANNELS:

A ship, the size, speed and draft of the LYDONIA may be safely navigated in the entrance to the Kennebec River whenever visibility at the entrance to the river is one mile and in the Kennebec River to Bath Maine whenever the shoreline is visible along the river. ✓

Channel Kennebec River to Mill Pond:

A channel about 0.2 of a mile south of Parker Head with 2 feet of water leads west from the Kennebec River to a dam at Mill Pond. Breaches have developed in the dam in two places and a small boat can enter Mill Pond through these breaches at high water. ✓

The channel from the Kennebec River to the dam at Mill Pond is marked during the summer with branches of trees set in the shoal banks of the channel by local residents. ✓

GEOGRAPHIC NAMES:

Geographic names is part of a report to be submitted by Lt. H. O. Fortin in connection with the air photo inspection of this area. ✓

SCALE:

The scale of the boat sheets is 1:10,000. The scale of the smooth sheets of the Kennebec River is 1:5,000. ✓

Respectfully submitted.

C. D. Meaney,
Lieut. Comd'r. C&GS.

Copy of combined report which was signed by C. D. Meaney. ✓

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STATISTICS

HYDROGRAPHIC SHEET 2 6802 & 6803

U.S.C.&G.S.S. LYDDNIA - C. D. MEANEY, COMD'G.

Launch 79 - Lt. H. G. Conerly, In Charge

Vol. No.	Date 1942	Day Letter	No. of Positions	Statute Miles
I	5/15	a(blue)	128	10.6
I	5/18	b	101	9.6
II	5/18	b	73	7.4
II	5/19	c	143	12.1
III	5/20	d	24	2.9
III	5/22	e	94	6.9
III	5/25	f	84	8.4
IV	5/25	f	58	5.5
IV	5/26	g	127	14.4
V	5/27	h	103	8.7
V	5/28	j	99	9.0
VI	5/28	j	76	6.8
VI	5/29	k	126	11.2
VII	5/29	k	71	7.2
VIII	5/29 6/4	l	117	7.8
VIII	6/5	m	104	9.7
IX	6/5	m	108	0.9
IX	6/8	n	154	14.7
IX	6/9	p	41	3.0
X	6/9	p	159	13.1
X	6/10	q	56	4.9
XI	6/10	q	187	14.7
XI	6/12	r	8630	8.3
XII	6/12	r	113	10.8
XII	6/16	s	20	2.9
XIII	6/30	t	59	4.9

Launch 79 - Lt. Clarence A. George, In Charge

XIII	10/12	u	42	4.0
XIII	10/13	v	45	4.0
Total			2442 2497	224.4

Dinghy - Lt. John H. Brittain, In Charge

I	10/13	a(red)	39	3.0
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Launch 103 - Lt. Dale E. Sturmer, In Charge

I	10/13	a(green)	19	Bottom specimens
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<u>Vol.</u> <u>No.</u>	<u>Date</u> <u>D942</u>	<u>Day</u> <u>Letter</u>	<u>No. of</u> <u>Positions</u>	<u>Statute</u> <u>Miles</u>
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LYDONIA - Lt. Comdr. C. D. Meaney, Comd'g.

I	6/12	A(red)	27	5.0
---	------	--------	----	-----

This is a sounding line run on sheets 1 and 2 on the Kennebec River to check 808 depth recorder soundings with Dorsey number one fathometer soundings. ✓

Total Sheet 2	2500 2518	232.4
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Surveys Section (Chart Division)

H6803

HYDROGRAPHIC SURVEY NO.

Records accompanying survey:

Note: Boat Sheet, Soundings & Fath. rolls are filed with H6802
 Boat sheets .1.; sounding vols. .15.; wire drag vols. .0.;
 bomb vols. 0.....; graphic recorder rolls .20....;
 special reports, etc. none.....

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

Number of positions on sheet	.612.
Number of positions checked	..40.
Number of positions revised	..2.
Number of soundings recorded	624! approx.
Number of soundings revised (refers to depth only)	.20..
Number of soundings erroneously spaced	.48..
Number of signals erroneously plotted or transferred	..0..
Topographic details	Time ..7..
Junctions	Time ..1/2..
Verification of soundings from graphic record	Time ..5..

Verification by... *P.H. Andros*..... Total time .50 hrs. Date 10-19-43

Review by ... *J.A. McCormick*..... Time .11 hrs. Date .11/3/43.

H6803

Remarks

Decisions

	Remarks	Decisions
1		U.S.G.B
2		437697 "
3		"
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14	Location of tide staff	438648 U.S.G.B
15	"	437697
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES
 Survey No. **H6803**

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
<u>Maine</u>											1
<u>Kennebec River</u>											2
<u>Parker Head</u>											3
<u>Bluff Head</u>											4
<u>Gilbert Head</u>											5
<u>Long Island</u>											6
<u>Long Island Narrows</u>											7
<u>Marr Island</u>											8
<u>Todd Bay</u>											9
<u>Cox Head</u>											10
<u>Wyman Bay</u>											11
<u>Dix Island</u>											12
											13
<u>Phippsburg</u>											14
<u>Fort Popham</u>											15
											16
<u>Parkins Island</u>											17
<u>Mill Pond</u>											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

Names underlined in red approved
 by L. Heck on 1/18/43

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
 PHOTOSTAT OF

} No. H
 } No. T

H6803

{ received Sept. 18, 1943
 { registered Sept. 18, 1943
 { verified
 { reviewed
 { approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25			
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40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	R. W. Knox
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Xac
HLL

TIDE NOTE FOR HYDROGRAPHIC SHEET

September 24, 1943

~~Division of Hydrography and Topography:~~

✓ Division of Charts: Attention: H. R. EDMONSTON

Plane of reference approved in
16 volumes of sounding records for

HYDROGRAPHIC SHEET 6803

Locality Kennebec River, Gilbert Head to Parker Head, Maine.

Chief of Party: C. D. Meaney in 1942
Plane of reference is mean low water reading
3.2 ft. on tide staff at Phippsburg
19.3 ft. below B. M. 1
2.9 ft. on tide staff at Fort Popham
14.8 ft. below B. M. 1

Height of mean high water above plane of reference is
8.0 feet at Phippsburg; 8.3 feet at Fort Popham.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

DIVISION OF CHARTS

REVIEW SECTION - SURVEYS BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6803

Field No. 2-b

Maine; Kennebec River; Gilbert Head to Parker Head
Surveyed May - October 1942; Scale 1:5,000
Instructions dated March 11, 1942 (Project C.S. 265)

Soundings:

808 Recorder

Control:

Three-point fix on shore signals

Chief of Party - C. D. Meaney
Surveyed by - LYDONIA'S Officers
Protracted by - A. Kaupa
Soundings plotted by - A. Kaupa
Verified and inked by - P. H. Andros
Reviewed by - J. A. McCormick
Inspected by - H. R. Edmonston, November 3, 1943

1. Shoreline and Signals

Shoreline and topographic signals are from topographic map T-5972 and graphic control survey T-6911 (1942).

2. Sounding Line Crossings

Satisfactory.

3. Depth Curves

Satisfactory.

4. Adjoining Surveys

A satisfactory junction was effected with H-6802 (1942) on the north. The survey on the south had not been received from the field at this writing.

5. Previous Surveys

H-552 (1856-57), 1:10,000; H-639 (1857), 1:10,000;
H-971 (1868), 1:10,000

Changes in the area have been confined mostly to the

back waters and sloughs. Differences between old and new surveys in the river proper appear to be mostly a matter of less development and less accurate methods on the older work. Cross channel lines on H-639 tended to exaggerate the extent of the shoaler depths. For example, the 1-ft. sounding (charted) in Lat. $43^{\circ}47.03'$, Long. $69^{\circ}47.04'$ on H-639 is one of seven soundings ranging from 1 to 6 feet, all of which probably were obtained within the limits of the shoal spit shown on the present survey. The old surveys are superseded entirely in the common area.

6. Wire Drag Surveys

H-6780 (1942), H-6799 (1942)

The main channel was dragged to effective depths ranging from 27 to 31 feet. This resulted in scraping bottom at several places along the 30-ft. curve. In Lat. $43^{\circ}46.7'$, Long. $69^{\circ}47.3'$ there is a decided conflict between Recorder depths of 26 and 27 feet and effective drag depths of 28 and 31 feet on H-6799. With such strong currents as referred to in the descriptive report it is probable that the drag was towed well up on the shoal before its progress was noticeably impeded.

7. Comparison with Chart 314 (Print of May 27, 1943)

Principal sources of hydrographic material charted in the area are the superseded surveys discussed in Par. 5 and the U. S. Engineers' 1941 survey on B.P. 37011. The Engineers' survey affords no information which need be retained and can also be considered superseded.

Several depths are charted from Letters 355 of 1942 and 69 of 1943, reports from the present field party of preliminary depths scaled from the boat sheet. Notable are the 6-ft. depth charted in Lat. $43^{\circ}46.89'$, Long. $69^{\circ}47.22'$ and the 32-ft. depth charted in Lat. $43^{\circ}46.25'$, Long. $69^{\circ}47.10'$. They are superseded by depths of 7 and 30 feet in slightly different positions on the smooth sheet.

Charted positions of the two floating aids in the area differ slightly from the positions determined on the survey. The Engineers' project depth of 27 feet is attained by favoring the can buoy on the

west side of the natural channel. Depths of 25 and 26 feet control for a distance of 200 meters on the channel side of the nun buoy marking the 7-foot shoal in Lat. $43^{\circ}46.85'$, Long. $69^{\circ}47.23'$.

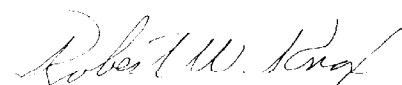
8. Compliance with Project Instructions

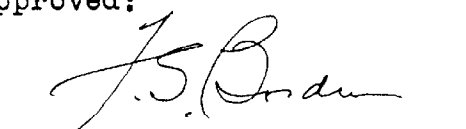
Satisfactory.

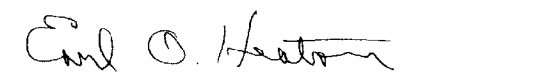
9. Additional Field Work Recommended


None.

Examined and approved:


Chief, Surveys Branch


Chief, Division of Charts


Chief, Section of Hydrography


Chief, Division of
Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. H 6803

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
6/28/45	238	<i>GJE</i>	Before After Verification and Review
1945-6	Revised 314	Everett	Before After Verification and Review
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			Before After Verification and Review

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

Partially applied to Cht. 1204 (before verification & review)
Oct. 1, 1943 K.R.

" " " " 314 (before verification & review)
Oct. 28, 1943 K.R.