

5403

U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton *Director*



State: Maryland

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No.
Hydrographic }

LOCALITY

Chesapeake Bay

Magothy River

Project No. 146

1933.
1934 Add'l Wk.

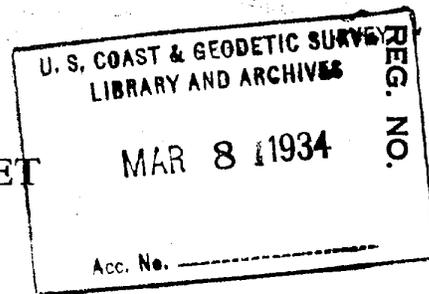
CHIEF OF PARTY

John A. Bond H. & G. Engr.

5403

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.

Field No. 6

REGISTER NO.

State Maryland

General locality Chesapeake Bay

Locality Magothy River *Large*

Scale 1:10,000 Date of survey Oct. - Dec., 19 33

Vessel Launch MIKAWA (shore sub-party)

Chief of Party John A. Bond

Surveyed by F. R. Gossett and W. R. Jackson

Protracted by J. W. Seager

Soundings penciled by J. W. Seager

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

~~Subdivision of wire dragged areas by~~

Inked by *J. E. DeMeul*

Verified by *J. E. DeMeul*

Instructions dated May 10, 19 33

Remarks: _____

DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet No. 6

MAGOTHY RIVER, MARYLAND

PROJECT NO. 146

AUTHORITY--The work on this sheet was executed in accordance with Director's Instructions dated May 10, 1933, Project 146

SURVEY METHOD--Control consisted of signals & natural objects located by Standard Coast Survey Methods of triangulation and planetable topography. In general, positions were obtained by 3 point sextant fixes except in restricted places as at the heads of narrow creeks where positions were plotted on the boat sheet in relation to nearby topographic detail. Soundings were obtained with a standard mahogany colored, wire centered, lead line with an 8 lb lead and in some shoal areas with a 2 inch, 15 foot cypress pole with 6 inch flanges on each end and marked to feet. Boats used were large 22 and 24 foot skiffs equipped with Johnson "12" outboard motors, sounding chairs and covered plotting tables.

This work was done by a detached shore party from the Launch MIKAWA with Lieut. (j.g.) F. R. Gossett in charge with the remainder of the party composed of graduate engineers and hands hired temporarily under the N.I.R.A.. W. R. Jackson, Surveyor, who had had considerable previous Coast Survey experience, was placed in charge of the hydrographic party after a short period of instruction and executed the work on this sheet.

DISCREPANCIES--Errors in the sounding record, principally in

recording and reading of angles, have been adjusted during smooth plotting and appropriate notes shown in the record in red.

DANGERS--There is a wreck of an old wooden hull which bares 2 feet at low water, 200 meters south of Magothy River Light Beacon (Mountain Point Beacon) in 4 feet of water, Lat. 39-03.2 Long. 76-26.0.

There are several old hulls partly broken up which bare 1 foot at low water, 200 meters offshore, W.S.W. of station Welch in 6 to 12 feet of water, Lat. 39-04.0 Long. 76-26.4.

The limits of shoal areas off Mountain and Persimmon Points are well marked by bouy and beacon.

There is a group of rocks, covered by 2 feet of water at L.W., near the end of the shoal spit which extends offshore about 600 meters SW'ly from ~~Stony Bar Pt.~~ *Rh Pt*

The most dangerous obstruction in the river is the bar with a least depth of 5 feet, which extends south from Chest Neck Pt., for 800 meters for almost $\frac{2}{3}$ the distance across the river.

Shoal bars extend off the other principal points of the river for, from 50 to 250 meters.

CHANNELS--15 feet can be carried into the mouth, and for 5 miles up the Magothy River to Boundary Stone Point, but the practical controlling depth in the wide area inside the mouth is 14 feet. A bar outside the mouth (Sheet 5) has only 12 feet. Care is necessary to pass south of the 5 foot bar off Chest Neck Point which is unmarked.

10 feet can be carried through Magothy Narrows into the yacht basin north of Gibson Island. The channel is well marked by single

pile beacons established by the Yacht Club.

The channels into the creeks above Dobbins Island are restricted by bars which are unmarked and which require care or local knowledge to pass.

ANCHORAGES--The entire river from Mountain Pt. upstream affords almost any type of anchorage desired for boats drawing 14 feet or less. There is plenty of swinging room with protection from the Northeast in the lee of Gibson Island for larger vessels and snug anchorages up the creeks for small boats. Bottom is soft to sticky in the deeper areas.

COMPARISON WITH PREVIOUS SURVEYS--This sheet was compared with the Survey of 1898 and found to be in good general agreement. Depth curves checked well taking account of the greater detail of the present survey. A general shoaling of from 1 to 2 feet over the entire river was noted. The bar extending 800 meters south from Chest Neck is shoaler and of greater extent than shown on the previous survey. Shoal spots on the old survey in the wide area west of Gibson I. were transferred to the boat sheet and investigated in the field by dropping a bouy on the position of the old shoal and feeling around in the vicinity with the hand lead.

GEOGRAPHIC NAMES--The correct names of all inlets, points, etc., are shown on topographic sheets F. G. and H., and covered by the descriptive reports accompanying those sheets.

Approved and Forwarded.

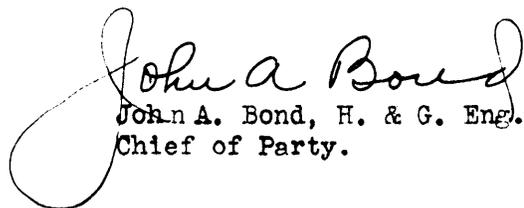
John A. Bond
John A. Bond
H. & G. E.
Chief of Party

Respectfully submitted,
F. R. Gossett
F. R. Gossett
Jr. H. & G. E.
In Charge - Sub-Party

STATISTICS FOR SHEET, FIELD NO. 6

<u>Date</u>	<u>Day</u> <u>Letter</u>	<u>Volume</u>	<u>Positions</u>	<u>Soundings</u>	<u>Sta. Miles</u>
Oct. 27	a	I	6	35	0.5
31	b	I	76	332	5.7
Nov. 1	c	I	133	564	10.3
2	d	I	58	205	3.7
8	e	I&& II	79	320	6.5
9	f	II	98	473	9.0
10	g	II	44	262	5.0
15	h	II	63	271	4.8
24	j	III	98	695	15.2
25	k	III	108	732	16.7
27	l	III & IV	103	451	8.6
28	m	IV	123	941	21.4
29	n	IV & V	90	649	13.6
Dec. 4	p	V	112	791	17.7
5	q	V & VI	118	973	25.9
6	r	VI	99	887	23.5
7	s	VI & VII	145	1260	33.2
8	t	VII	119	846	22.0
11	u	VII & VIII	54	306	5.6
12	v	VIII	24	106	2.6
13	w	VIII	24	129	2.8
14	x	VIII	39	220	4.3
15	y	VIII	26	118	2.6
16	z	VIII	22	86	1.7
18	a'	VIII & IX	155	599	12.0
19	b'	IX	113	381	7.1
20	c'	IX	19	68	2.0
21	d'	IX	59	205	3.4
26	e'	IX	6	6	0.5
28	f'	IX	5	16	0.5
<u>Totals</u>			<u>2218</u>	<u>12927</u>	<u>288.4</u>

Smooth Hydrographic Sheet 6 was plotted under the immediate supervision of Lieut. Gossett. The sheet and records have been inspected by the Chief of Party and are approved.


John A. Bond, H. & G. Eng.
Chief of Party.

March 5, 1934

LAC

March 28, 1934.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET 5403

Locality Magothy River, Chesapeake Bay, Maryland

Chief of Party: John A. Bond in 1933
Plane of reference is mean low water, reading
3.1 ft. on tide staff at Gibson Island
6.0 ft. below B. M. 1

1.8 ft. on tide staff at Upper Magothy River
4.8 ft. below B.M. 1

Height of mean high water above plane of reference is 0.8 feet.

Condition of records satisfactory except as noted below:

Paul P. Whitney
Chief, Division of Tides and Currents

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. *5403*

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

Number of positions on sheet	<i>2218</i>
Number of positions checked	<i>.57..</i>
Number of positions revised	<i>..0..</i>
Number of soundings recorded	<i>12,927</i>
Number of soundings revised	<i>..8..</i>
Number of signals erroneously plotted or transferred	<i>...0..</i>

Date: *Apr. 23, 1934*

Cartographer: *Ralph E. DeMeat*

Section of Field Records
Report on Hydrographic Sheet No 5403

Magothy River
Chesapeake Bay
Maryland.

Surveyed in - Oct. to Dec. 1933

Instructions dated May 10, 1933

Chief of Party - John A. Sand
Surveyed by - F. R. Gossett - & W. R. Jackson
Projected by - J. W. Seager
Soundings Plotted by - J. W. S
Topography inked by - D. M. Watt
Verified & inked by - R. E. DeMeant.

1. The records conform to the requirements of the Hydrographic Manual.
2. The sounding line crossings are adequate and in excellent agreement.
3. The 6, 12, 18, & 30 foot curves are drawn.

- 4 The field plotting was completed, to the extent prescribed in the Hydrographic Manual.
- 5 - No field drafting was redrawn.
- 6 - The junction with # 5416, on the South East cannot be made at the present time.
- 7 Remarks.
- (a) The field protracting of this sheet was excellently done. No positions were found to be in error.
- (b) No description is available for topographic stations located in the water. It is possible that these are Duck Blinds or other objects of a temporary nature.
- (c) Single Pile Beacons in Magalloway Narrows ~~are~~ were located as Topo. stations.

Respectfully submitted,

R. E. Dement.

Apr.
~~May~~ 23, 1934

Section of Field Records

REVIEW OF HYDROGRAPHIC SHEET NO. 5403

Magothy River, Chesapeake Bay, Maryland.
Surveyed in 1933
Instructions dated May 10, 1933 (MIKAWA)

Hand Lead Soundings and 3 Point Control

Chief of Party - John A. Bond.
Surveyed by - F. R. Gossett and W. R. Jackson.
Protracted by - J. W. Seager.
Soundings plotted by - J. W. Seager.
Verified and inked by - R. E. DeMent.

1. Records.

The records conform to the requirements of the Hydrographic Manual.

2. Plan and Character of Development.

The plan and character of development fulfill the requirements of the Hydrographic Manual.

3. Plan and Extent of Development.

The plan and extent of development satisfy the instructions for the Project.

4. Crossings.

Sounding line crossings in congested areas are satisfactory. Generally speaking, no regular system of cross lines were run over the main body of the sheet.

5. Depth curves.

The usual depth curves may be satisfactorily drawn.

6. Field protracting and plotting.

Field protracting and plotting are excellent.

7. Junction with contemporary survey.

The junction with the contemporary survey, H. 5416 at the mouth of Magothy River will be considered when that sheet has been verified. No other contemporary surveys adjoin this sheet.

8. Comparison with previous surveys and Chart 549.

Previous surveys made in this area are H. 164, survey of 1845

and H. 2365, survey of 1898. Comparison with the chart reveals a general shoaling of 1 to 2 feet over the entire sheet with the exception of portions of Sillery Bay and Tarcoat Cove where a deepening on some of the shoals is indicated. Of the charted shoals the following need special mention:

a. The 8 foot shoal (actually $8\frac{1}{2}$ from H. 2365) in approximate lat. $39^{\circ}05'.15$, long. $76^{\circ}27'.22$ falling near a $9\frac{1}{2}$ foot shoal on the present survey. The surrounding depths on the two surveys indicate that the shoal is a stable one and the 8 has been carried forward to the new survey as an $6\frac{1}{2}$.

b. The charted 8 foot sounding in approximate lat: $39^{\circ}03'.5$, long. $76^{\circ}26'.8$ (auth. H. 2365) falls in depths of 12 and 13 feet respectively. The new survey suggests that this was an error and the 8 foot sounding should be disregarded in future charting.

c. The charted 9 foot sounding (auth. H. 164) in approximate lat. $39^{\circ}04'.4$, long. $76^{\circ}29'.9$ was transferred to H. 2365 in red at some earlier date. Although the hydrography of H. 2365 is not sufficient for confirmation, a $13\frac{1}{2}$ foot sounding between depths of $17\frac{1}{2}$ and $18\frac{1}{2}$ feet nearby is sufficient for an indication. The charted 9 falls on a shoaling of 11 to 12 feet on the present survey. Since the current field party made no special investigation, the 9 foot sounding of H. 164 has been carried forward to this survey in red, and should be retained on the charts until proved to no longer exist.

See addenda,
this review.
H.M.

d. The charted 9 foot sounding in approximate lat. $39^{\circ}04'.2$, long. $76^{\circ}27'.8$ is from line 25 to 26g, H. 2365, which was re-plotted on this sheet in pencil. It falls in depths of 14 to 15 feet on the present survey and appears to be 1 fathom in error. According to the records, this sounding was obtained by a lead line, graduated in fathoms and feet, and is supported by two other 9 foot soundings. The boat was stopped $2\frac{1}{2}$ minutes to obtain a fix, so the first 9 foot sounding must have been taken within a few meters of the previous sounding which is 15 feet and would indicate an unusually rapid change of depth. The series of 9 foot soundings is questioned in the records by the plotter who was connected with the field party as an observer, but not on this particular day. Since the current field party made a search for this shoal (pos. 6e') and failed to find it, it is recommended that the 9 foot sounding of H. 2365 be omitted in future charting.

9. Additional Work.

No additional work is considered immediately necessary in this

area, but if work is resumed in this locality, consideration should be given the following:

a. The 5 foot sounding (pos. 91f) in lat. 39°05'.3, long. 76°27'.8 and the two 7 foot soundings (pos. 21-22g) in lat. 39°05'.2, long. 76°27'.6, all of which appear to be 1 fathom in error. See attached addenda, this review.

b. The 11 foot shoal in lat. 39°04'.4, long. 76°29'.9 on which 9 feet was found on the earlier survey (see par. 8, c, above). See attached addenda, this review.

c. An extension of the hydrography into Ross Cove (lat. 39°05'.3, long. 76°30'.9). The presence of small docks here suggests local importance. See attached addenda, this review.

Assume retention of the 91 fathoms in this H. R

10. Nature of topographic Signals.

A number of signals falling offshore in this survey could not be identified in the sounding records nor in the descriptive reports of the topographic sheets. Those most important are as follows:

Don	lat.	39°04'.6	long.	76°27'.8
Cog	"	39°03'.8	"	76°28'.3
Bas	"	39°03'.8	"	76°28'.7

In addition, an unnamed signal shown on the boat sheet in lat. 39°05', long. 76°27'.1. See attached addenda, this review.

11. Note to Compiler.

The present survey with the indicated soundings in red should supersede H. 164 (survey of 1845) and H. 2365 (survey of 1898) for charting purposes.

Reviewed by - Harold W. Murray - May, 1934.

12. Sheet Inspected and recommendations concurred in - A. L. Shalowitz.

K.T. Adams
K. T. Adams,
Chief, Section of Field Records.

B. B. Brown
Chief, Section of Field Work.

Examined and approved:

L. O. Pollock
Chief, Division of Charts.

G. H. Rude
Chief, Division of H. & T.

*Applied to new chart 550
Oct 1934 H.L.P.*

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Additional work

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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: Maryland

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 6 5403
Hydrographic }

LOCALITY

Magothy River

Chesapeake Bay

1934

ACTING CHIEF OF PARTY

F. R. Gossett.

Additional work

Additional work

SUPPLEMENTAL REPORT FOR ADDITIONAL WORK

ON SHEET NO. H-5403

U. S. COAST & GEODETIC SURVEY
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In accordance with Director's Letter dated June 29, 1934, additional work was done on sheet no. H-5403 as follows:

1. (Par. 9a in review) Soundings referred to are 1 fathom in error as suggested in review. Additional lines were run. Positions 1 to 4 a (green). *Consult attached addenda to review for final disposition of soundings. None.*

2. (Par. 9b in review) Search was made for 9-foot sounding of previous survey by drifting and cruising in the vicinity, sounding continuously for 20 minutes. Least depth obtained was 12 feet.

11 ft. reduced.

3. (Par. 9c in review) The entrance to Ross Cove was obstructed by a foot bridge in Nov.-Dec., 1933. This bridge is now partially removed for a width of 10 meters across the entrance allowing access for soundings. *11 ft. reduced* feet was obtained in the entrance with a general depth of 6 to 9 feet in the cove.

5 to 8 ft. reduced

4. (Par. 10 in review) The signals indicated in water areas were on duck blinds of temporary nature.

Respectfully submitted,

F.R. Gossett,
Jr. H. & G. Engr.,
Acting Chief of Party

Addenda to Hydrographic Review of H. 5403 (1933)

Additional Work done by J. A. Bond in 1934.

Purpose.

The purpose of this additional work in the vicinity of Magothy River was to verify or to disprove certain conflicting matters discussed in paragraphs No. 9 and 10 of the Hydrographic Review of H. 5403 (1933). The following paragraph headings and discussion herein refer to paragraphs in the review of the original survey:

Paragraph 9a.

5 foot sounding in lat. $39^{\circ}5'.3$, long. $76^{\circ}27'.8$.

Several minutes were spent sounding in the vicinity of this sounding. The least depth obtained was 11 feet. The 5 foot sounding is therefore disproved and has been removed from the sheet in favor of the 11 foot sounding (pos. 4a, green).

Two 7 foot shoalings in lat. $39^{\circ}5'.2$, long. $76^{\circ}27'.6$.

A single line of soundings was run just westward of these 7 foot shoalings. Since no additional time was spent in drifting and sounding over these shoalings, information contained on the single sounding line is not considered sufficient to disprove their existence. The two 7 foot shoalings have accordingly been retained.

Paragraph 9b.

11 foot shoal in lat. $39^{\circ}4'.4$, long. $76^{\circ}29'.9$.

Twenty minutes time was spent sounding in the vicinity of this shoal where 9 feet is charted (auth. H. 164) and the least depth obtained was two 11 foot soundings; positions 5 and 6a (green), respectively. The 9 foot sounding previously retained is thereby disproved and has been removed from H. 5403 (1933) to which it was transferred pending this examination.

Paragraph 9c.

Development of Ross Cove in lat. $39^{\circ}5'.3$, long. $76^{\circ}30'.9$.

The additional work done in this vicinity is satisfactory.

Paragraph 10.

Nature of Topographic Signals.

According to the descriptive report of the additional work "the signals indicated in water areas were on duck blinds of temporary nature." Appropriate notes have been accordingly shown on the smooth sheet.

Reviewed by - Harold W. Murray - Aug. 13, 1934.

Inspected by - A. L. Shalowitz.

K. T. Adams
K. T. Adams,
Chief, Section of Field Records.

F. S. ...
Chief, Section of Field Work.

Examined and approved:

L. O. Polbut
Chief, Division of Charts.

G. H. ...
Chief, Division of H. & T.

Additional Work On H. 5403.

Surveyed by - F. R. Gossett.

Notations of all corrections due to additional work were made. The soundings were rejected in the sounding volumes, where affected by this work, and conflicting soundings removed from the original sheet. The additional soundings were plotted in blue with day letters in green. Additional work in Ross Cove was plotted likewise. All depth curves affected were also changed. ✓

There were no radical changes of note other than the 5 ft. sounding in lat. $39^{\circ}05'.3$, long. $76^{\circ}27'.8$ which was removed in favor of a 11 ft. sounding. ✓

The 9 ft. from an earlier survey at lat. $39^{\circ}04'.4$, long. $76^{\circ}29'.9$ was evidently not substantiated by this survey. Removed from sheet. ✓

Appropriate descriptive
~~No~~ notes were made of questionable signals since they ^{are} ~~were only~~ of a temporary nature. ✓

Respectfully submitted,

Chas. R. Bush, Jr.

July 23, 1934

Applied to reconstruction ch# 566 772 Jan 1948