6374

JAN 23 1939

Acc. No.

6374

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } Field Sheet No. 1017
Registry H 6374

State Maryland

LOCALITY

Chesapeake Bay

Tolchester Beach & Vicinity

1938

CHIEF OF PARTY

F. L. Gallen

U. S. GOVERNMENT PRINTING OFFICE

Form 537

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. 1017

REGISTER NO. H-6374 H6374

State Maryland

General locality Chesapeake Bay

Locality Tolchester Beach & Vicinity

Scale 1:10000 Date of survey September 9-16 19 38

Vessel Launch MIKAWE

Chief of Party F. L. Gallen

Surveyed by E. B. Brown

Protracted by G. E. Varnadoe

Soundings penciled by G. E. Varnadoe

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by F.B. Kelly

Verified by F.B.K.

Instructions dated Aug. 15, 19 38

Remarks:

U. S. GOVERNMENT PRINTING OFFICE

DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet H6374

(Field No. 1017)

Date of Instructions: - March 31, 1938, August 15, and August 24, 1938.

LIMITS

The sheet covers a section of the Chesapeake Bay ship channel off Tolchester Beach, between buoy "7" and buoy "1" and from the 24 foot curve, shown on the chart, to the shore.

SURVEY METHODS

The soundings were taken with a hand leadline from a 25 foot skiff propelled by an outboard motor at about 5 knots, the lines being run on ranges. The positions were located by sextant fixes on shore signals and were plotted with a 3 arm protractor. The signals were located by sextant cuts from triangulation stations and cuts from sextant fixes located from triangulation stations. In some cases a sextant fix was taken at a signal to be used in conjunction with the cuts for the location.

The following signals fall outside the high water line: Use, is a temporary wooden tripod signal. Boy, is a temporary banner. Kit and Lot, are temporary banners on cattle fences; these fences have wooden posts that extend about 6 feet above mean high water and they extend offshore to about a depth of 2½ feet. Fer, is the light on Tolchester Pier. Pol, is a small flagpole on the end of a small wooden wharf. Tom, is a banner on a wooden stake that was at one time a part of a fish trap. Rot and Fox, are temporary hydrographic signals.

It is recommended that some additional development be run at the junction of this sheet and sheet H6375, vicinity of Lat. 39° 15'. This is approximately on the southern limit of the work that was assigned this party for the 1938 field season.

DANGERS

There is a 12 foot shoal point that extends offshore at Tolchester Pier, Lat. 39° 13', Long. 76° 15.9'. It was developed by split lines. The shoal soundings on the end of the point were obtained on pos. 80 b day, pos. 39 f day and the last sounding between pos. 38 and 39 f day.

There is a 12 foot shoal that lies 0.3 mile off shore at Lat. 39° 14.9', Long. 76° 13.9'. It was developed by split lines and a cross line. Shoal soundings obtained on d day, pos. 8 to 9 and pos. 56 to 57; also f day pos. 9 to 10 and pos. 18 to 20.

There is shoal water along the western limit of this sheet between Lat. 39° 14.6' and 39° 15.7'. A complete development was not made on this sheet. The shoalest sounding obtained in this vicinity

25

was 7 feet on e day between positions 113 and 114 and between positions 117 and 118.

Small craft running along shore must beware the fish traps that usually extend about 200 meters offshore in this vicinity.

CHANNELS

A section of the Chesapeake Bay Ship Channel is developed on this sheet. By following the buoys in their 1938 location, the controlling depth is 21 feet between buoy "7" and "9". By following the natural channel of the bay the controlling depth is 31 feet about 200 meters southeastward of buoy "1".

The project depth of the Chesapeake Bay Ship Channel is 27 feet. A ship may keep in 27 feet or more by sailing as follows: From a point 50 meters east of buoy "1" stear 183°T for 1.3 nautical miles to a point 460 meters, bearing 50°T from buoy "9". Then steer 199°T for 2.4 nautical miles to a point 660 meters bearing 115° T from buoy "7". Then steer course 226°T to leave nun buoy "6" on to southeastward. This buoy was not located on the sheet.

COMPARISON WITH PREVIOUS SURVEYS - Sheet H2399 (1898) and Chart 549, print 38-5/10.

The soundings along shore inside the 30 foot curve agree very closely with the previous surveys, except as follows: The 12 foot shoal at Lat. 39° 15.2', Long. 76° 13.8' was developed by splits and found now to have a controlling depth of 13 feet. The 11 3/4 foot shoal at Lat. 39° 14.8', Long. 76° 13.9' has become some smaller and now has a controlling depth of 12 feet. The 24 foot sounding shown at Lat. 39° 15.2', Long. 76° 14.1' seems to exist no longer (soft bottom). A main scheme line was run near the sounding and a cross line run across the sounding and no shoal was indicated. At Lat. 39° 15.7', Long. 76° 14.2' the 30 foot curve heads off to the northeastward instead of to the northwestward as drawn on sheet H2399. At Lat. 39° 13', Long. 76° 14.8' a 12 foot shoal has built up since the previous survey. (H-2345-1896-97).

The area to the westward of the 30 foot curve has generally shoaled from 2 to 4 feet. The 24 foot depth curve in the vicinity of Lat. 30° 12.2', Long. 76° 15.9' has moved to the southeastward about 350 meters. About 1½ miles north of this point the 24 foot curve has moved about 100 meters southeastward. At Lat. 39° 14.8', Long. 76° 14.6' the point of the 24 foot curve has become wider and now extends about 0.6 mile further north than it did on sheet H2399. This point now includes the detached 24 foot shoal shown on ~~H2399~~ the chart at Lat. 39° 15.4', Long. 76° 14.6'. At Lat. 39° 15.8', Long. 76° 14.5' a shoaling of about 7 feet has occurred, with soundings of 23 to 24 feet falling on old soundings of 30 to 31 feet.

The soundings along the western limit of the sheet between Lat. 39° 14.5' and Lat. 39° 15.9' seem to be in very good agreement with those of the previous survey. Hard bottom.

GEOGRAPHIC NAMES

All geographic names shown on the chart in this vicinity seem to be in common local usage.

Submitted by,

E B Brown

E. B. Brown
Jr. H. & G. Engr.

Approved by,

F. L. Gallen
H. & G. Engineer
Chief of Party

STATISTICS

SHEET - 1017

Day Letter	Miles (statute)	Soundings	Positions
a	5.3	179	38
b	24.1	1058	161
c	21.6	764	163
d	18.0	594	111
e	18.1	652	125
f	18.6	752	147
	105.7	3999	745

Smooth sheet 1017 was plotted under the immediate supervision of the Chief of Party. The sheet and records have been inspected and are approved.

F. L. Gallen
H. & G. Engineer
Chief of Party

RQC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Ed. Feb. 1935

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 31, 1939.

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. E. P. Ellis.

Plane of reference
~~Tide-Reducers-are~~ approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 6374

Locality Tolchester Beach and Vicinity, Chesapeake Bay, Md.

Chief of Party: F. L. Gallen in 1938
Plane of reference is mean low water reading
2.8 ft. on tide staff at Gales Wharf
37.5 ft. below B.M. 6

Height of mean high water above plane of reference is 1.3 feet.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE

H-6374

	Remarks	Decisions
1		392762 U S G B
2		392762
3		392762
4		392762
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M 234		

GEOGRAPHIC NAMES

Survey No. H6374

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	
Pooles Island										1
Chesapeake Bay										2
Tolchester Beach										3
Mitchell Bluff										4
										5
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Names underlined in red approved by L. Heck on 5/22/39

M 234

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. H6374

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

Number of positions on sheet	745
Number of positions checked	12
Number of positions revised	1
Number of soundings recorded	3999
Number of soundings revised	8
Number of signals erroneously plotted or transferred	0
No. of Soundings incorrectly spaced	27

Date: April 4, 1939

Verification by Francis B. Kelly Time: 30 hours.

Review by [signature] Time: 19½ hours.

HYDROGRAPHIC SURVEY NO. H6374

Smooth Sheet Yes

Boat Sheet Yes (One)

Records; Sounding 3 Vols., Wire Drag ___ Vols., Bomb ___ Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol.#1

Landmarks for Charts (Form 567) None

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) ----

Special Chart for Lighthouse Service (Circular Nov.30, 1933) None yes?

Hydrography: Total Days 6 ; Last Date September 16, 1938

Remarks

3776

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~ } No. H -6374
~~XNoXXTx~~

received January 23, 1939
registered Jan. 27, 1939
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	✓		Pages 1 and 2
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed

✓ GBR

Verifier report on H6374 (1938)

The records conform to the requirements of the General Instructions.

The signals are origins with the survey location outs in Vol I

adjoining surveys have not as yet been received in the office.

Shoreline and Signals:

The shoreline is from T-5427 (1933) and T-5428 (1933)

The signals from triangulation from 1842 1935 and Hydrographic signals as listed in Volume one of the sounding volumes.

-Thomas B. Kelly

April 4, 1939

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6374 (1938) FIELD NO. 1017

Tolchester Beach and Vicinity, Chesapeake Bay, Maryland
Surveyed in September 1938, Scale 1:10,000
Instructions dated August 15, 1938 (MIKAWE)

Hand Lead Soundings — 3 Point fixes on shore signals

Chief of Party - F. L. Gallen
Surveyed by - E. B. Brown
Protracted by - G. E. Varnadoe
Soundings plotted by - G. E. V.
Verified and inked by - F. B. Kelly

1. Shoreline and Signals

The shoreline is from topographic maps T-5427 (1933) and T-5428 (1933). The low water line shown thereon is in conflict with the hydrography and is probably non-existent. Therefore, it is not shown on H-6374 (1938).

The signals originate with triangulation stations and hydrographic signals. Cuts used to locate the hydrographic signals are recorded in Volume 1 of the sounding records.

2. Depth Curves

The depth curves can be satisfactorily drawn, except on the northwest edge of the work adjoining H-6375 which has not yet been received in the office.

3. Sounding Line Crossings

The agreement of soundings at line crossings is very good.

4. Junctions with Contemporary Surveys

No contemporary surveys which join the present survey have as yet been received in the office.

5. Comparison with Prior Surveys

(a) H-166 (1845), Scale 1:20,000

This survey, within the limits of the present work, consists of about a dozen sounding lines run radially from three or four points along the shore. Although the information on the old

survey is too meager to make a good comparison, the soundings are in poor agreement with the present work and in some cases 10 to 20 feet deeper than those on the present survey. The shoreline details are of a sketchy nature. This survey is of no future value for charting purposes, and within the common area of the present survey, H-166 (1845), should be disregarded.

(b) H-2345 (1896-97), Scale 1:20,000 and H-2399 (1898), Scale 1:20,000.

The present survey falls entirely within the limits of the above old surveys. A good comparison of the soundings from the old surveys with the present survey is contained on page 2 of the descriptive report. There has been a shoaling of 7 feet in Lat. 39°15.8', Long. 76°14.5' and a general shoaling of from 2 to 4 feet west of the channel from Lat. 39°12.0' to Lat. 39°15.5'. It is noted, however, that the depths on the shoals, mentioned in the descriptive report, inside of the 18 foot curve have decreased very little, i.e. 1/2 to 1 foot and that there is practically no change in general depths.

The present survey fully covers the ground, and within the common area, should supersede H-2345 (1896-97) and H-2399 (1898) for charting purposes.

6. Comparison with Chart 549 (Latest Print dated Oct. 26, 1938) Chart 1226 (Latest Print dated Oct. 18, 1938) and Chart 77 (Latest Print dated March 22, 1939)

(a) Hydrography

The charts are based chiefly on surveys discussed in the preceding paragraphs and reported information. The notes "shoaling reported" from Lat. 39°13' to 39°15' in approximate Long. 76°14.5' off Tolchester Beach should be deleted from the charts and the soundings from the present survey substituted therefor.

Blue print No. 32234 (Sept. 15-27, 1938) scale 1:9,600 by the U. S. Engineers is a survey of the channel. Lines spaced from 240 to 600 meters were run normal to the channel. The Engineer's survey was made immediately after the one by this Bureau. No important differences in the soundings exist. Because of the closer development, the

present survey should supersede blueprint No. 32234 for charting purposes.

(b) Aids to Navigation

The aids to navigation as located on the present survey are in substantial agreement with the charted positions.

Lighted buoys "7" and "9" charted in Lat. 39°12.3, Long. 76°15.75' and Lat. 39°14.3', Long. 76°14.58', respectively, do not properly mark the channel defined by the 5 fathom curve. (See chart letter 724 (1938) and copy of letter dated Nov. 17, 1938, by C. A. Park, Acting Commissioner of Lighthouses attached thereto). A photostat of H-6374 has been sent to the Lighthouse Service for their information.

7. Condition of Survey

(a) The records are neat and legible and conform to the requirements of the hydrographic manual.

(b) The descriptive report is clear and satisfactorily covers all matters of importance.

(c) The field plotting is satisfactory.

8. Compliance with Instructions for the Project.

This survey satisfies the instructions for the project.

9. Additional Work Recommended

The matter of additional work in Lat. 39°15' at the junction with H-6375, as recommended on page 1 of the descriptive report, will be considered when that survey is received in the office.

10. Superseded Old Surveys

Within the area covered, the present survey supersedes the following surveys for charting purposes.

H-166 (1845) in part
H-2345 (1896-97) in part
H-2399 (1898) in part

11. Reviewed by - Leo S. Straw, May 5, 1939

Inspected by - E. P. Ellis

Examined and approved:

T. B. Reed,
Chief, Section of Field Records

K. T. Adams
Chief, Division of Charts

Fred. L. Peacock
Chief, Section of Field Work

Chief, Division of H. & T.

Applied to Draw. Chart 1226 P.B.C. 3/3/39.
" " " " 549 J.M.A. 6/26/39