

5349

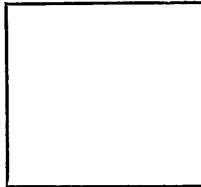
U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1928

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



State: Delaware

DESCRIPTIVE REPORT

Topographic
Hydrographic } Sheet No. 2A 5349

LOCALITY

Delaware Coast

(Lat. 38° 30' Long. 74° 47')

N.E. of Fenwick Island Shoal.

19 33

CHIEF OF PARTY

H. A. Seran

5349

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

Bierwagen

REG. NO. 5349

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. 2A and 2B

REGISTER NO. 5349

State Delaware and Maryland

General locality Offshore Delaware and Maryland Coasts.

Locality N.E. of Fenwick Island Shoal and S.E. of Isle of Wight Shoal *RAR*

Scale 1:20,000 Date of survey June 24-25, 1933 ~~1932~~

Vessel OCEANOGRAPHER and GILBERT

Chief of Party H.A. Seran

Surveyed by H.A.S. & Herman Odessey.

Protracted by F.S. Trantham

Soundings penciled by F.S.T.

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by —

Inked by —

Verified by Harold W. Murray and E.M. Bierwagen

Instructions dated April 27, 1933 ~~1932~~

2-A

Remarks: Survey to verify or disprove existance of wrecked barge.

2-B

Development of shoal area covered by RAR work on #2

Descriptive Report

Hydrographic Sheet No. 2A

Vicinity of Fenwick Island Shoal Lighted Whistle Buoy 2

Instructions:

The instructions directing the work on this sheet are contained in the Director's instructions to the Commanding Officers of the Ships OCEANOGRAPHER, LYDONIA, and GILBERT, dated April 27, 1933, and covering projects HT142, HT143, and HT144.

Purpose of Survey

This survey was executed to verify or disprove the existence of a wrecked barge, presumably located about 5 miles north (mag) from Fenwick Island Shoal Lighted Whistle Buoy 2, approximate lat. $38^{\circ} 30'$, long. $74^{\circ} 47'$. The position of this wreck as shown on Chart 1219 was taken from letter 543 (1925) ?

Limits

The region covered by the survey extends from lat. $38^{\circ} 28'$ to lat. $38^{\circ} 33'$ and from long. $74^{\circ} 45'$ to long. $74^{\circ} 48\frac{1}{2}'$, comprising an area of approximately 12 sq. mi., centered about the charted position of the wreck.

Survey Methods

The hydrographic survey was controlled by sextant angles on four survey buoys, W-Z-X-Y, planted in a north and South line along the eastern limit of the area examined.

Buoy W was located by bomb distances from buoys ABLE and BOY. The positions of buoys Z, X, and Y were determined by taut wire measurements and sun azimuths, referred to buoy W.

Computations of the buoy distances and azimuths, and the records pertaining to them will be forwarded to the office.

Soundings were taken with the fathometer, sufficient comparisons being made with hand lead to give adequate fathometer corrections.

Reduction of Soundings

In making reductions for tide, it was assumed that the tide occurred 15 minutes earlier than at Assateague Anchorage, at which point a standard tide gauge was in operation. ✓

Position Plotting

In plotting positions no correction was made for the swinging radius of the buoys. The buoys being close together and having a short radius of swing, it was considered unnecessary to attempt to correct for the slight displacement in positions which would occur from neglecting this factor.

Due to irregular speed of ship between positions 83A and 84A, the location of soundings between these positions was estimated.

Positions 52B and 53B were rejected, and soundings on this line up to position 54B were omitted on the smooth sheet. The soundings were not needed, and the time intervals between positions were inconsistent. *not plotted from.*

On some line crossings, and in places where sounding lines were too close together to permit all soundings to be plotted, the shoal soundings were shown and the deeper soundings omitted.

Crossings

Over the northern half of the area surveyed the bottom is regular and the line crossings are generally good. Over the southern portion of the area, however, numerous abrupt changes in depth occur and the crossings are noticeably affected.

The cross line 91B to 96B shows very poor crossings, ranging from 3 feet to 11 feet, which can be ascribed only to improper working of the fathometer, as the bottom is reasonably smooth and the regular lines show no indications of the depths obtained on this cross line. It is recommended that this cross line, position 91B to 96B, be rejected. *line not plotted*

Excepting the poor crossings on the line 91B to 96B the only other large discrepancy is on the crossing 77A to 78A and the line past 82B. A 75 foot sounding on the cross line falls on an 86 foot sounding on the line between 77A to 78A. The bottom in this vicinity is very lumpy and a slight displacement of the soundings would account for this discrepancy. *86 x 92 ft only not plotted*

Changes in Charted Depths

There is a considerable discrepancy between the depths found on this survey and the depths as shown on Chart 1219. A least depth of 62 feet was found at lat. 38° 29'.3', long. 74° 47'.3', which is about 25 feet less than the depth indicated on Chart 1219. Numerous other soundings near this position show less water than is indicated on the chart.

In a letter dated July 7th, 1933, to the Director, from the Commanding Officer of the Oceanographer, the following statement was made in reference to this survey----- "A sounding of 10½ fathoms unreduced was gotten about half a mile from the charted position of the wreck and it is believed that this sounding is on the barge and that the barge has sanded over." *#410 letter 1933*

Respectfully submitted,

Edwin J. Brown
Edwin J. Brown, Lt. C. & G. S.

Approved and forwarded:

H.A. Seran

H.A. Seran, Comdr., C&GS.,
Commanding Ship OCEANOGRAPHER

Table of Statistics

OCEANOGRAPHER

<u>Day</u>	<u>Date</u>	<u>Soundings</u>	<u>Positions</u>	<u>Mileage</u>
A	6-24-33	708	117	64.0
B	25	<u>501</u>	<u>96</u>	<u>64.0</u>
Total		1209	<u>213</u>	128.0

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

State: Maryland

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 2B
Hydrographic }

LOCALITY

Maryland Coast

(Lat. 38° 18' Long. 74° 54')

S.E. of Isle of Wight Shoal.

1933

CHIEF OF PARTY

H. A. Seran

5349

Descriptive Report

Hydrographic Sheet No. 2B

Maryland Coast

Instructions

The instructions directing the work on this sheet are contained in the Director's instructions to the Commanding Officers of the Ships OCEANOGRAPHER, LYDONIA, and GILBERT, dated April 27th, 1933, and covering projects HT142, HT143, and HT144.

Purpose of Survey

The work on this sheet comprises the development, on a larger scale, of the shoal area found on Sheet 2 at approximate lat. $38^{\circ} 17\frac{1}{2}'$, long. $74^{\circ} 53\frac{1}{2}'$.

Limits

An area about 3 miles by 1 mile in extent was examined, with the longer axis of the area extending in a northeasterly-southwesterly direction, parallel to the axis of the shoal, and centered about lat. $38^{\circ} 17\frac{1}{2}'$, Long. $74^{\circ} 53\frac{1}{2}'$.

The three detached sounding lines shown on the sheet to the southeast of the main area of operations were run for the purpose of filling in areas not properly covered by the RAR work on Sheet 2.

Survey Methods

The hydrography was executed by both the OCEANOGRAPHER and the GILBERT.

All sounding were by hand lead.

The hydrographic survey was controlled by sextant angles on 3 survey buoys, Boy, U, and R. Buoy Boy was located by bomb distances as a part of the main scheme of control. The positions of buoys U and R were determined by taut wire measurements and sun azimuths, referred to buoy Boy.

Computations of buoy distances and azimuths, and the records pertaining to them will be forwarded to the office.

Reduction of Soundings

In making reductions for tide, it was assumed that the tide occurred 15 minutes earlier than at Assateague Anchorage, at which point a standard tide gauge was in operation.

Position Plotting

In plotting positions no correction was made for the swinging radius of the buoys. As the buoys were planted close together and had a short radius of swing, it was considered unnecessary to attempt to correct for the slight displacement in positions which occurred by neglecting this factor.

In all cases where soundings were omitted because of lack of space, the shoaler soundings were plotted.

Agreement of Soundings

The soundings on closely adjacent lines on the sheet show no large discrepancies.

Extent of Shoal

The development of this shoal shows it to be of considerable extent, an area about $2\frac{3}{4}$ miles long by $\frac{1}{2}$ mile wide being within the 36 foot curve.

In general, the least water was found along the northeast-southwest axis of the shoal, with a least depth of 27 feet at lat. $38^{\circ}17.4'$, long. $74^{\circ}53.5'$.

Respectfully Submitted

Edwin J. Brown
Edwin J. Brown
Lt., U.S.C. & G. Survey

Approved and forwarded:

H. A. Seran

H. A. Seran, Comdr., C&GS.,
Commanding Ship OCEANOGRAPHER

Table of Statistics

OCEANOGRAPHER

Day	Date	Soundings	Positions	Mileage
A	6-28-33	129	23	5.2
B	6-30-33	217	62	13.0
	Total	346	85	18.2

GILBERT

A	6-28-33	106	22	6.2
B	6-30-33	436	79	17.2
	Total	542	101	23.4

KAC

January 16, 1934.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 5349

Locality Northeast of Fenwick Island Shoal and Southeast of Isle of
Wight Shoal, Coasts of Delaware and Maryland

Chief of Party: H. A. Seran and Herman Odessey in 1933

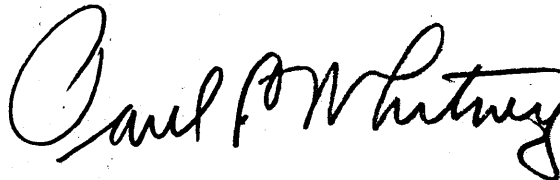
Plane of reference is mean low water reading

3.5 ft. on tide staff at Assateagus Anchorage, Maryland

9.3 ft. below B. M. 17

Height of mean high water above plane of reference is 4.0 feet

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents

Jan. 22, 1934

Section of Field Records
Report on H-5349
Offshore, Delaware and Maryland Coasts
Surveyed in June, 1933
Instructions dated April 27, 1933

Chief of Party is H. A. Seran.

Surveyed by H.A.S. and H. Odsey.

Protracted by F. S. Trantham.

Sounding plotted by F.S.T.

Verified and inked by Harold W. Murray and E. M. Bierwagen

1. The records conform to the requirements of the Hydrographic manual.
2. The plan and character of development fulfill the requirements of the Hydrographic manual.
3. ~~The coastlines of this sheet were not very satisfactory. The crossing line from Sta. 91-96 B, red, was rejected as recommended by the chief of party. The soundings varied from 2 to 11 ft deep.~~
4. Depth curves may be satisfactorily drawn within the limits of the survey.
5. Field protracting and plotting were excellent.
6. Since no current sheets of this vicinity have been,

as yet, received in this Office, no junctions were necessary.

7. This sheet was inspected and field plotting verified by the writer. The following sounding lines were likewise verified and inked:

76-78A	} approx. Lat. $38^{\circ}30'.3$ Long $74^{\circ}47'.3$	1-7B	} approx. Lat. $38^{\circ}17'.3$ Long $74^{\circ}53'.6$
100-101A			
36-39B			
77-87B			

The remaining soundings were verified and inked by Mr. E. M. Bierwagen

8. Shoal developments.

a. Lat. $38^{\circ}17.4$, long. $74^{\circ}53'.5$. The least depth obtained on this shoal was 27 feet, pos. 6-7B, green, which compares quite favorably with the least depth of 28 feet on Chart #1220 (Aug. 4, 1932). However, the limits of the shoal as outlined by the 30 foot curve has now shifted about 430 m. in a south and southeast ^{ward} direction. The 28 ft sounding referred to above consequently falls in depths of 30 to 50 feet.

The 60 ft. curve immediately to the south agrees favorably with the curve on the present chart.

b. Lat. $38^{\circ}29.3$, long. $74^{\circ}47'.3$. A least depth of 62 feet accompanied by two 65 ft. soundings was obtained

on line 89-90B, red, and confirms the reported 102 fms. sounding (unreduced) referred to in the chief of Party's report. In addition, a 67 ft. indication was obtained on A day, red, pos. 85-86. No evidence of shoaling appears on Chart #1219 (May 2, 1933). The interpolated depth in this vicinity is about 85 feet.

C. Lat. $38^{\circ} 30'.06$, long $74^{\circ} 46'.96$. A sounding (odd-interval) having a least depth of 78 feet, pos. 76-77A, red, and surrounded by depths varying from 84-80 feet was obtained approximately 40 m. due East of the wreck shown on chart 1219. In addition, a 74 ft. sounding was obtained approximately 210 m. in a W by N direction from the wreck. With the exception of a single cross line, the soundings possessing shoal indications have not been developed.

Respectfully submitted —

Harold W. Murray

Supplementary Report on H-5349

In verifying this sheet (off Delaware coast), two discrepancies were found, and rectified, where the penciled soundings did not correspond to the Sounding Record: between 58A and 59A, where 97 was changed to 87, and at 90A, where 90 was changed to 91.

~~The symbol for "wreck" (existence of which~~
~~wreck this survey sought to disprove or verify)~~
~~was not inked in and remains on the sheet~~
~~in pencil.~~ The survey does not seem to prove beyond all doubt the non-existence of the wreck in the approximate location first plotted - only one cross-line having been made through that particular area.

~~In verifying the plotting off the Maryland coast, the soundings between 8A and 11A (green) were re-plotted according to the Sounding Record. The error may have been caused by the fact that the position numbers 9A and 10A (green) in the Sounding Record are not on the same line as the~~

~~Corresponding sounding reports. If the spacing as it now appears on the sheet is spaced correctly, a more prominent arrow indication of the changes made in the Sounding Record might have been advisable to insure correct reading.~~

Inking was simplified by the precise character and legibility of the pencil work.

Respectfully submitted,
E. M. Bierwagen

Section of Field Records

REVIEW OF HYDROGRAPHIC SHEET NO. 5349

Northeast of Fenwick Island Shoal and Southeast of Isle
of Wight Shoal.

Offshore, Delaware and Maryland Coasts.

Instructions dated April 27, 1933 (OCEANOGRAPHER).

Surveyed in 1933.

Fathometer soundings on Fenwick Island Shoal area and Hand Lead
on Isle of Wight Shoal area - Three Point Control on Buoys.

Chief of Party - H. A. Seran.

Surveyed by - H. A. S., H. Odessey.

Protracted by - F. S. Trantham.

Soundings penciled by - F. S. Trantham.

Verified and inked by - H. W. Murray and E. M. Bierwagen.

1. Purpose.

The purpose of this survey was to make a large scale development of the shoal area about 6 miles southeast of Isle of Wight Shoal falling within the limits of H. 5348 (scale 1-40,000) and an examination of the charted wreck northeast of Fenwick Island Shoal in lat. 38°30', long. 74°47'.

2. Condition of Records.

The sounding records are neat, legible and conform to the requirements with the exception that the captions at the top of the pages were not fully ruled.

3. Compliance with Instructions for the Project.

The plan, character and extent of development fulfill the instructions for the Project.

4. Depth Curves.

Depth curves may be satisfactorily drawn within the limits of the survey.

5. Sounding Line Crossings.

Sounding line crossings are irregular. Positions 91-96 B (Approx. lat. 38°28'.5, long. 74°46') with soundings varying from 2 to 11 feet deeper than the main system of lines were rejected as recommended by the Chief of Party.

6. Junction with Contemporary Surveys.

The development off Isle of Wight Shoal is completely bounded by H. 5348 (1933) and the junction will be effected when that sheet is verified. In the development off Fenwick Island Shoal, no junction is considered necessary.

7. Comparison with Previous Surveys.a. Development off Isle of Wight Shoal.

The charted soundings in this area are from H. 213 (1849), H. 251 (1850) and H. 3314 (1911). The shoal is outlined on H. 213 which is controlled by angles from shore stations. A comparison shows the shoal to have shifted about 400 m. in a S. and S.W. direction with depths about the same provided the original location was correct.

b. Development off Fenwick Island Shoal.

Inasmuch as the purpose of this survey was to ^{verify} rectify or disprove the existence of the charted wreck in this vicinity a comparison with previous surveys is not essential. However, it is noted that soundings of H. 4164, survey of 1920 (Trolley Soundings) are in several places 10 feet deeper while those of H. 4944, survey of 1929 (Fathometer Soundings) are in several places 10 feet shoaler. Overlapping soundings of H. 4094, survey of 1920, being few in number and possessing control not comparable with current methods are of little value for comparative purposes.

Soundings of H. 101 (survey of 1844, scale 1-400,000), H. 670 (survey of 1859, scale 1-400,000), and H. 1720 (survey of 1886, scale 1-200,000) are few in number and considering the date and scale of survey are of little or no value.

c. Inasmuch as the present survey is of a larger scale, possessing more detail and with soundings in generally good agreement obtained by improved methods, it should supersede all previous surveys mentioned in paragraphs a and b above.

8. Comparison with Charts Nos. 1220 and 1219.

The charted 34 foot sounding (Chart 1220) in lat. 38°18'.5, long. 74°52'.6 was identified on H. 213 (plotted from records of H. 251 as overlap) and found to be erroneously plotted as $5\frac{3}{4}$ fathoms instead of $6\frac{3}{4}$ (actually $6\frac{5}{6}$).

The least depth found near the charted wreck (Chart 1219) (auth. Notice to Mariners, 1918) in lat. 38°30', long. 74°47' was 74 feet in the immediate vicinity and 62 feet about $\frac{3}{4}$ mile to the S.S.W. Inasmuch as the non-existence of this wreck has already been published in Notice to Mariners No. 29 of 1933 on recommendation of Chief of Party (Chart Letter No. 410, 1933) it need not be further considered here.

9. Field Plotting.

Field protracting and plotting were excellent.

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

Inspection Note by A. L. Shalowitz.

Considering the irregular bottom in the vicinity of the reported wreck, it would have been desirable to have dragged the vicinity of the two shoal areas mentioned above. However, it is believed that no danger to surface navigation exists here at the present time, hence the removal of the wreck symbol from the charts is concurred in.

Sheet Inspected by - A. L. Shalowitz.

Examined and approved:

K. T. Adams

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

L. O. Lobbat

Chief, Division of Charts.

J. S. Braden

Chief, Section of Field Work.

G. H. Hude

Chief, Division of H. & T.