

5353

Diag. Cht. No. 1220-1.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic Virginia

Field No. 5 (Part 1.) Office No. H-5353

LOCALITY

State Maryland and Virginia

General locality Offshore Maryland and Virginia Coasts.

Locality N. E. of Winter Quarter Shoal

1933

CHIEF OF PARTY

H. A. Seran

LIBRARY & ARCHIVES

DATE February 19, 1934

5353

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5353

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. 5 (part one)

REGISTER NO. 5353

State Maryland and Virginia

Large

General locality Offshore Maryland and Virginia Coasts

Small

Locality N. E. of Winter Quarter Shoal

Scale 1:40,000 Date of survey 9-19 to 10-15, 1933

Vessel OCEANOGRAPHER Lydonia

Chief of Party H. A. Seran

Surveyed by Field Officer (H. A. Seran R. L. Schoppe)

Protracted by W. F. D. & G. E. M.

Soundings penciled by F. S. T.

Soundings in ~~fathoms~~ feet

Plane of reference M. L. W.

Subdivision of wire dragged areas by

Inked by J. Miller

Verified by W. H. Bamford + Irwin Miller

Instructions dated April 27, 1933

Remarks:

DESCRIPTIVE REPORT

Hydrographic Sheet (field letter five- part one)

Maryland and Virginia Coast, 1933.

Project No. H. T. 142, 143.

The descriptive report for Hydrographic Sheet (field letter five - part one) is herewith submitted.

INSTRUCTIONS:

The hydrography on this sheet is a part of Project No. H. T. 142, 143, the instructions for which were dated April 27th, 1933.

LIMITS AND SCALE:

This sheet was surveyed on a scale of 1:40000. The area covered lies between Latitude 37°-56', Latitude 38°-10' and Longitude 75°-00' to Longitude 75°-06', approximately. The shoal water that lies in the vicinity of Latitude 38°-11', Longitude 74°-57' and Latitude 38°-10', Longitude 74°-56' southwest to Longitude 75°-00' and Latitude 37°-54', Longitude 74°-58' was developed on this sheet.

This sheet joins with Sheet 2 on the N.E., Sheet 7 on the N.W. and West, Sheet 5 - part two on the East, Sheet 8 on the West and Sheet 6 on the South.

SURVEY METHODS:

*red letter box* ← The area on this sheet was surveyed by the ships OCEANOGRAPHER *yellow letter box* and LYDONIA. The positions on this sheet were determined by sextant fixes on shore objects and buoys. The shore objects were located by third order triangulation along the beach. Tall signals were erected at the triangulation main scheme stations. The buoys used were few and were located by fixes from the shore objects.

The soundings on this sheet were taken for the most part with the lead line. It was checked every day before beginning work and at the end of the work every day. A few of the soundings were taken with the striker unit of the fathometer.

Satisfactory junctions were made with the adjacent sheets. The depth curves from Sheet 5 (part two) and Sheet 2 were transferred to this one and are shown in dotted red lines. The depth curves join satisfactorily in most cases and smooth curves can be drawn from this sheet onto the other sheets concerned.

REDUCTION OF SOUNDINGS:

A standard tide gauge was maintained at Assateague Anchorage. In the reduction of soundings for tide, it was assumed that the stages of the tide on the working grounds occurred fifteen minutes earlier than that at the point where the tide gauge was located.

The fathometer corrections ( the index correction and the temperature and salinity correction ) were taken as one unit. Comparison between the fathometer and vertical casts were taken on an average of once an hour during the time it was in use.

DISCREPANCIES:

*See letter from H.A. Seran, filed with descriptive report of H-5351*

Positions 104 AA, 17-18 CC, OCEANOGRAPHER'S work, and 52-55 B and 68 B, LYDONIA'S work, were not plotted for reasons given in the soundings records by the man plotting.

Where soundings were taken when the vessel was turning sharply between positions they were not plotted on this sheet.

The soundings, in general, crossed quite satisfactorily, usually within 2 feet.

A list is given below of those crossing which do not come within the above limits.

Lydonia crossings on Lydonia work.

1.	56 feet	(52 - 53 C)	on	48 feet	(63 - 64 B)	✓
2.	54 "	(54 - 55 C)	"	49 - 40 "	(82 - 83 B)	✓
3.	37 "	(106-107 B)	"	43 - 46 "	(49 - 50 B)	✓
4.	48 "	(22 - 23 A)	"	42 - 40 "	(110-111 D)	✓
5.	57- 64 "	(13 - 14 E)	"	33 - 27 "	(95 - 96 B)	✓ <i>unplotted</i>
6.	45- 38 "	(15 - 16 E)	"	25 "	(95 - 96 B)	✓
7.	38- 40 "	(76 - 77 <sup>2</sup> E)	"	50 "	(58 - 59 F)	✓
8.	61 "	( 75 F)	"	44 - 42 "	(76 - 77 B)	✓
9.	56 "	(100-101 F)	"	60 "	(104-105 C)	✓
10.	59 "	( at 82 B )	"	38 "	(54 - 55 C)	✓
11.	62 "	(57 - 58 C)	"	41 "	(66 - 67 B)	✓
12.	34 "	(137-138 D)	"	31 - 27 "	(48 - 49 B)	✓
13.	42 "	( at 136 D )	"	36 "	(82 - 83 C)	✓
14.	46 "	(175-176 D)	"	43 "	( 5 - 6 C)	✓
15.	48 "	( 8 - 9 E)	"	43 "	( at 1 E )	✓
16.	52- 59 "	(23 - 24 E)	"	48 "	(81 - 82 B)	✓
17.	46 "	( at 44 F )	"	51 - 57 "	(65 - 66 B)	✓
18.	45 "	(33 - 34 E)	"	51 - 57 "	(65 - 66 B)	✓
19.	49- 48 "	(81 - 82 B)	"	53 - 54 "	(43 - 44 F)	✓
20.	53- 61 "	(94 - 95 B)	"	41 "	(28 - 29 E)	✓

Oceanographer crossings on Oceanographer work.

Fathometer soundings on hand lead soundings.

1.	62 feet	( at 68 AA)	on	58 feet	(3 - 4 BB)	✓
2.	68 "	(101-102AA)	"	74 "	( 68 CC)	✓
3.	58 "	(87 - 88AA)	"	69 "	(63 - 64 DD)	✓
4.	70 "	( at 88 AA)	"	74 "	(66 - 67 DD)	✓
5.	89 "	(81 - 82AA)	"	95 "	(64 - 65 CC)	✓

Hand lead soundings on hand lead soundings.

6. 50 feet ( at 14<sup>Y</sup> ) on 58 feet ( at 2 CC ) ✓
7. There is an 8 foot maximum difference on lines 7-8-9 Y and 26-27-28-29 DD. ✓

Oceanographer crossings on Lydonia work.  
Fathometer soundings on hand lead soundings.

- 1. 77 feet ( at 91 AA) on 81 feet (72 - 73 B) ✓
- 2. 63 - 64 " (102-103AA) " 67 - 72 " (89 - 90 B) ✓

Hand lead soundings on hand lead soundings.

- 3. 41 feet (95 - 96 S) on 45 feet (149-150 D) ✓
- 4. 41 " (170-171 S) " 44 " (73 - 74 D) ✓
- 5. 58 " (111-112 Z) " 63 " (110-111 F) ✓
- 6. 50 " ( at 64 Z ) " 47 " (113-114 F) ✓
- 7. 42 " (83 - 84 S) " 46 " (76 - 77 D) ✓
- 8. 46 " (97 - 98 S) " 49 - 50 " (114-115 D) ✓
- 9. 51 - 56 " (175-176 Z) " 54 " (88 - 89 F) ✓
- 10. 48 - 45 " (124-125 Z) " 45 - 44 " (115-116 F) ✓
- 11. 45 - 47 " (124-125 Z) " 41 " (84 - 85 F) ✓
- 12. 58 " ( at 61 CC) " 61 " (131-132 C) ✓

Crossings Nos. 1-9, LYDONIA; 1-5, OCEANOGRAPHER; and 3-6, LYDONIA AND OCEANOGRAPHER, inclusive; might be possible since a very small shift in either of the lines would make a material change in the crossings as all of the soundings vary quite a bit in these areas. It is recommended that the shoal soundings be plotted except in the case of the fathometer soundings on the hand lead soundings. The hand lead soundings should be accepted.

Crossings Nos. 10-12, LYDONIA, inclusive, and 7, OCEANOGRAPHER, are on the edge of shoals where the bottom has an abrupt rise from deep to shoal water. A small change in the control would make the soundings check. It is recommended that the shoal soundings be accepted.

Crossings 13-20, LYDONIA, 1 and 2; 7-12 OCEANOGRAPHER on LYDONIA, inclusive, are in water where the bottom is rough and varying. It is recommended that the shoal soundings be accepted except in the case of 1 and 2, OCEANOGRAPHER on LYDONIA. The hand lead soundings should be accepted.

Crossing 6, OCEANOGRAPHER, is on the edge of a hole. A small shift in the lines would bring it within the limits. It is recommended that the shoal sounding be plotted.

In all cases where the hand lead soundings cross the fathometer soundings lines preference should be given to the hand lead soundings.

COMPARISON WITH OLD WORK:

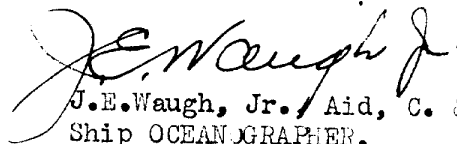
The general shape and trend of the depth curves on the chart check fairly well with those on this sheet. The shoal spots are in approximately the same area. The soundings on the sheet are a little shoaler for the most part than those shown on the chart.

AIDS TO NAVIGATION:

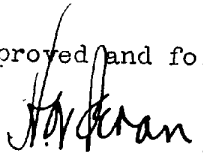
There are two buoys located on this sheet that are aids to Navigation. One is Sugar Point lighted bell buoy. It has a flashing white

light and is located in 53 feet of water in Latitude  $38^{\circ}-05'-1324m$ , Longitude  $75^{\circ}-03'-228m$ . The other is Winter Quarter Shoal lighted whistle buoy 6 W.Q.S. It has an occulting white light and is located in 60 feet of water in Latitude  $37^{\circ}-57'-791m$ , Longitude  $75^{\circ}-05'-1307m$ .

Respectfully submitted:

  
J.E. Waugh, Jr., Aid, C. & G. S.,  
Ship OCEANOGRAPHER.

Approved and forwarded:



H. A. Seran, Commdr., C. & G. S.,  
Commanding Ship OCEANOGRAPHER.

STATISTICS

Visual fix - hand lead soundings.

OCEANOGRAPHER

Day	Date	Statute miles sounding line	Number positions	Number soundings
S	9-19-33	49.0	184	611
T	9-20-33	18.2	66	247
Y	10-1-33	42.6	150	667
Z	10-10-33	55.2	187	724
AA	10-11-33	37.2	131	525
BB	10-12-33	19.0	66	254
CC	10-14-33	23.8	88	409
DD	10-15-33	21.9	79	337
Totals		266.9	951	3774

LYDONIA

A	9-30-33	15.7	32	159
B	10-1-33	38.0	96	453
C	10-10-33	55.9	136	606
D	10-11-33	54.4	180	867
E	10-12-33	10.1	35	146
F	10-15-33	41.7	116	347
Totals		215.8	595	2578

Visual fix - fathometer soundings.

X	9-30-33	12.0	28	178
AA	10-11-33	20.0	48	504
Totals		32.0	76	672

Totals for  
Sheet 5  
(part one)

514.7	1622	7024
27.1	119	391
<u>541.7</u>	<u>1741</u>	<u>7415</u>

Area covered by sheet 94 square miles.

RAC

March 3, 1934

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in  
5 volumes of sounding records for

HYDROGRAPHIC SHEET 5353

Locality Northeast of Winter Quarter Shoal off Maryland Coast.

Chief of Party: Ray L. Shoppe and H. A. Seran in 1933

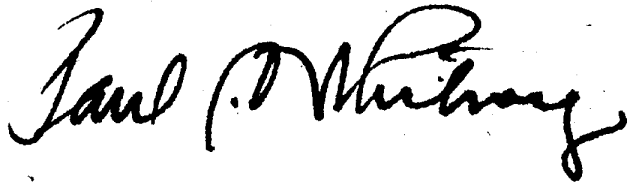
Plane of reference is mean low water, reading

3.5 ft. on tide staff at Assateague Anchorage, Va. (Allowance of 15 minutes

9.3 ft. below B. M. 17 earlier made for time of tide at place of sounding)

Height of mean high water above plane of reference is about 4 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents



Field Records Section (Charts).

HYDROGRAPHIC SHEET No. **5353**

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

Number of positions on sheet	<b>.1622</b>
Number of positions checked	<b>.53.</b>
Number of positions revised	<b>..8..</b>
Number of soundings recorded	<b>.79.74</b>
Number of soundings revised	<b>.65..</b>
Number of signals erroneously plotted or transferred	<b>.....</b>

Date: **5/1/34**.....

Cartographer: **W. H. Bamford & I. Miller**.....

PARTIAL REPORT FOR H. 5353

MARCH 17, 1934

1./ The protracting was found to have been fairly well done - seven positions were found to have been erroneously plotted and consequently were changed. The position numbers for the hydrography accomplished by the "oceanographer" were small and legible - but were in yellow ink. This color of ink is not desirable as it fades out comparatively rapidly. The position numbers for the hydrography done by the "hydroid" were in red ink - but as a rule were too large. The position pin pricks for all the hydrography on this sheet were as a rule too large.

2./ On page #52 - Sounding volume #4 - a note is found indicating that pos. 65AA thru pos. 112 AA were plotted on another hydrographic sheet i.e. H. 5356. This was due to the fact that the signal used as the left object for the fixes for this hydrography i.e. ASSATEAGRE LIGHT HOUSE (1849) - plots beyond the limits of sheet H. 5353. This plotting must have been done on tracing paper superimposed on H. 5356 - and destroyed after the transfer to H. 5353.

2 CONTD

was completed - as these positions do not appear on H 5356 or the boat sheets for that sheet.

3/ The Sugar Point Lighted Bell Buoy - in Lat.  $38^{\circ}-05'+1324$  m and Long.  $75^{\circ}-03'+228$  m (approx.) is located on this survey by three fixes, found on page #4 vol #1 of the sounding volumes for this sheet. The buoy position was evidently taken as the mean between pos. III' and the intersection of the ranges on triangulation stations from the other two positions.

4/ NOTE: Part of "Y" day and all of "X" day positions and soundings will be found in Sdg. Vol. #8 of Hydrographic Sheet No. 5355

~~5/ The date the sheet's projection is referred to was not indicated on the sheet by the field plotter.~~

Respectfully Submitted  
Warren H Bamford

Section of Field Records  
Report on the Verification of H-5353.

May 1, 1934

1. Records & Notes.

The field records and notes conformed with the requirements of the Hydrographic Manual. The sounding volumes lacked adequate information necessary for plotting soundings on turns and therefore no soundings were plotted on turns. With this exception, the volumes were complete.

The position numbers & letters in red from the "Lydonia" hydrography were too large. The prick points were also too large.

The position numbers & letters in orange from the "Oceanographer" work were very neat and legible.

2. Protracting.

Accompanying this report is one by Mr. Bamford, who inspected the protracting of this sheet. However five additional positions were checked by the verifier and one was found to be in error.

3. Soundings.

The soundings were well plotted with respect to time intervals. However a few soundings were erroneously plotted as to value.

4. Crossings.

In most cases the crossings agreed very well. All cases of poor crossings were referred to in the descriptive report and were handled by the verifier in the method suggested in the report. The poorest crossing, referred to as no. 5 Lydonia crossings on Lydonia work, was improved by a change in position 14E which was reprotracted.

5. Junctions.

Junctions were made with three of the five adjoining sheets, two of them not having been verified as yet. In general there was a good agreement, although there were several spots on H-5355 which did not agree very well with those of this sheet.

Respectfully submitted,  
Irvin Miller

Section of Field Records

REVIEW OF HYDROGRAPHIC SHEET NO. 5353 (1933).  
N. E. of Winter Quarter Shoal, Off Maryland & Virginia Coasts

Hand Lead and a few Fathometer Soundings and visual fixes on shore objects.

Original instructions dated April 27, 1933 (OCEANOGRAPHER).  
Supplemental instructions dated June 1, 1935 (OCEANOGRAPHER).

Chief of Party - H. A. Seran.  
Surveyed by - H. A. Seran; R. L. Schoppe.  
Protracted by - W. F. D; G. E. M.  
Soundings penciled by - F. S. T.  
Verified by - W. H. Bamford; I. Miller.  
Inked by - I. Miller.

1. Condition of Records.

The records conform to the requirements of the Hydrographic Manual. It is noted that part of Y day and all of X day are recorded in Vol. 8 of H. 5355 (1935).

2. Compliance with Instructions for the Project.

The character and extent of the survey satisfy the instructions for the project. Within the limits of the work the ground has been well covered and shoal areas appear to have been sufficiently developed except on the northeastern extremity of Winter Quarter Shoal.

3. Sounding Line Crossings.

In general the sounding lines cross very well although the differences at crossings are quite often larger than four per cent of the depth. The field party submitted in their descriptive report a list of the worst crossings. In some cases the discrepancies were quite large but these occurred in areas where the depths were changing rapidly and a slight shift of either line would bring the soundings into agreement. All of these crossings were examined and a few improved by replotting the positions. The recommendations of the field party were followed; the shoalest depths being used except in a few cases where hand lead soundings were given the preference over fathometer soundings.

4. Depth Curves.

The information is sufficient for drawing the usual depth curves.

5. Junctions with Contemporary Surveys.

The junction on the north with H. 5348 (1933) will be reported in the review of that sheet after it has been verified.

The junction on the west with H. 5357 (1933) is generally satisfactory but should have been closer in the vicinity of the 32 foot sounding shown on H. 5353 (1933) in Lat.  $38^{\circ}01'.6$ , Long.  $75^{\circ}06'.7$ .

The junction in the vicinity of Winter Quarter Shoal with H. 5358 (1933) is very satisfactory.

The junction on the east with H. 5355(1933) is satisfactory but there are several places where the soundings do not agree closely. The soundings from H. 5353 (1933) are mostly hand lead soundings and should be given the preference over those on H. 5355 (1933).

Two 35 ft. fathometer soundings of doubtful accuracy were obtained on the work on H. 5355 (1933) on the shoal in approximate Lat.  $38^{\circ}11'.4$ , Long.  $74^{\circ}57'$ . The lead line examination of this shoal, plotted on H. 5353 (1933) shows no depth under 44 feet. This area has been re-examined in 1934 without finding any indication of the 35 ft. soundings.

The junction on the south with H. 5356 (1933) is satisfactory.

6. Comparison with Prior Surveys.

- a. H. 251 (1850), shows no depths much shoaler than the new work. Because of the difference in time between the two surveys and also because of the fact that the control of H. 251 (1850) may not be as accurate as the three point fix control of the new work, H. 5353 (1933) should within the area covered supersede H. 251 (1850) for charting purposes.
- b. H. 761 (1863), a reconnaissance survey, shows only a few soundings, none of which are shoaler than the depths obtained on the recent survey. H. 761 (1863) should be superseded by H. 5353 (1933) within the area covered by the latter sheet.
- c. H. 3314 (1911), is plotted on a scale of 1 to 200,000. The greater portion of the sounding lines on this sheet, depend for control upon a crude type of dead reckoning. There is no evidence in the records that any allowance was made for current and leeway and the position of soundings is probably very approximate. For the most part the depths on H. 3314 (1911) are no shoaler than those on the new work. A 36 foot sounding shown on Chart 1220 in approximate Lat.  $38^{\circ}06'.4$ , Long.  $75^{\circ}01'$  is the exception to this statement. It was found that the line on which this sounding was obtained crossed other lines on H. 3314 (1911) very poorly. The line was run by dead reckoning and no return was made for closure. The line was eventually tied in to Fenwick L. V., after a run of approximately 20 miles, about four hours after the line ended. Superimposing this line over the new soundings it was found that this line would have to be moved approximately  $1\frac{1}{4}$  miles in a southwesterly direction in order to bring it into fair agreement. The new work is not quite close enough to conclusively disprove the 36 foot sounding but in view of the very inaccurate character of the control of this sounding line, it is recommended that the 36 foot sounding be omitted from the chart. H. 3314 (1911) will be superseded by H. 5353 (1933) within the area covered by the latter sheet.

- d. H. 3314a, (1912) is on a scale of 1 to 80,000. This survey shows no shoals or dangers which were not located by the new work. Because of the fact that the control for this survey is also poor and the position of soundings only approximate (see verifiers report attached to descriptive report of H. 3314a), the present survey H. 5353 (1933) should within the area covered supersede H. 3314a (1912) for charting purposes.

7. Comparison with Chart 1220.

The general shape and trend of the charted depth curves check fairly well with those of the new survey. Shoaler depths were obtained on most of the shoals which are in approximately the same position. The charted soundings are traceable to our own surveys. The new location of Sugar Point lighted bell buoy checks very well with its charted position. Winter Quarter Shoal lighted whistle buoy, 6 W.Q.S., was located approximately 1140 meters,  $186\frac{1}{2}^{\circ}$  true, from its charted position.

8. Wreck.

The P. D. wreck symbol, previously shown on Chart 1220 in Lat.  $37^{\circ}58'$ , Long.  $75^{\circ}01'$ , was charted by authority of H. O. N. to M. 2 - 1920. This is mentioned here as a matter of record only, since the wreck symbol has already been removed from the chart on the strength of recommendations by the Chief of Party. (Chart Letters 643 and 676, 1933).

9. Additional Field Work Recommended.

As work is being continued in this area this year, a closer development of the following shoal indications would be desirable:

1. A 35 foot sounding shown on H. 5353 (1933) in Lat.  $38^{\circ}09'.8$ , Long.  $75^{\circ}04'.2$ .
2. Two 37 foot soundings shown on H. 5353 (1933) in Lat.  $38^{\circ}06'.0$ , Long.  $75^{\circ}03'.2$ .
3. A 35 foot sounding shown on H. 5353 (1933) in Lat.  $37^{\circ}59'.4$ , Long.  $75^{\circ}00'.4$ .
4. A 32 foot sounding shown on H. 5353 (1933) in Lat.  $38^{\circ}01'.6$ , Long.  $75^{\circ}06'.7$ .

10. Superseding Old Surveys.

Within the area covered, the present survey, with the indicated additions from previous surveys, will supersede the following surveys for charting purposes:

H. 251 (1850) in part.  
H. 761 (1863) in part.  
H. 3314 (1911) in part.  
H. 3314a (1912) in part.

11. Reviewed by - R. L. Johnston - June 1934.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

  
Chief, Division of Charts.

  
Chief, Section of Field Work.

  
Chief, Division of H. & T.



# 5353

Additional work

Diag. Cht. No. 1220-1.

Form 504	
U. S. COAST AND GEODETIC SURVEY DEPARTMENT OF COMMERCE	
<b>DESCRIPTIVE REPORT</b>	
Type of Survey <u>Hydrographic</u>	
Field No. .... Office No. <u>H-5353Ad.Wk.</u>	
LOCALITY	
State <u>Maryland and Virginia</u>	
General locality <u>Offshore Maryland and Virginia Coasts.</u>	
Locality <u>N. E. of Winter Quarter Shoal</u>	
<u>19<del>4</del> 34</u>	
CHIEF OF PARTY	
<u>R. L. Shoppe</u>	
LIBRARY & ARCHIVES	
DATE <u>December 17, 1934</u>	

B-1870-1 (1)

# 5353

Additional work

D E S C R I P T I V E R E P O R T

TO ACCOMPANY SHEET NO. 5353 (1933)

Additional Work LYDONIA  
1934

In accordance with the review of Hydrographic Sheet No. 5353 by the Section of Field Records, additional field work was recommended in four spots within the limits of this sheet. All of this work was in the range of visibility of shore signals and on September 26th the LYDONIA proceeded to this area to develop these four spots. Some delay was occasioned in waiting for a clear day and the party was fortunate in finding such a day. All four of these spots were visited and developed as noted on the overlay of tracing paper which is forwarded with the original boat sheet. *One spot on G.S. other three on tracing. L.S.S.*

This work was all controlled by sextant fixes and leadline soundings were taken and supported by readings on the shoal water fathometer. The least water depths as listed below were reduced from predicted tides and should be verified when final tide reduction is made. The sounding volume has already been forwarded to the Office and I am unable to make this verification at present. Furthermore, it should be noted that soundings on the boat sheet and the least water depths listed below are the handlead soundings. The fathometer soundings were not taken into consideration when the boat sheet was plotted.

Results of this season's work are as follows:

(1) On the shoal listed in Latitude  $38^{\circ} 09' 8''$ , Longitude  $75^{\circ} 04' 2''$  the least depth sounded was 36 feet.

(2) On the shoal listed in Latitude  $38^{\circ} 06' 9''$ , Longitude  $75^{\circ} 03' 2''$  the least depth sounded was 36 feet.

(3) On the shoal listed in Latitude  $37^{\circ} 59' 4''$ , Longitude  $75^{\circ} 00' 4''$  the least depth sounded was ~~37~~<sup>36</sup> feet.

(4) On the shoal listed in Latitude  $38^{\circ} 01' 6''$ , Longitude  $75^{\circ} 06' 7''$  the least depth sounded was ~~33~~<sup>31</sup> feet.

The agreement with last season's work was close with the exception of the shoal listed in number three which appears to have slight displacement. This will probably check up satisfactorily when the plotting is made on the smooth sheet. Statistics for this work are as follows:

Number of Statute Miles	-	27.0
Number of Soundings	-	391
Number of Positions	-	119
Number of Angles	-	238
Area - Square Miles	-	2.0

*Approved  
H. A. ...*

Respectfully submitted:

*Ray L. Schoppe*

Ray L. Schoppe, Chief of Party.

200

March 11, 1935.

N.D\*

Division of Hydrography and Topography:

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

Tide Reducers are approved in  
1 volume of sounding records for

HYDROGRAPHIC SHEET 5353 (Additional work)

Locality Northeast of Winter Quarter Shoal, off Coast of Maryland.

Chief of Party: Ray L. Schoppe in 1934  
Plane of reference is mean low water, reading  
4.6 ft. on tide staff at Assateague Anchorage  
10.2 ft. below B.M. 18

Height of mean high water above plane of reference is about 4 feet.

Condition of records satisfactory except as noted below:

*H. H. Manner*  
Chief, Division of Tides and Currents.

REPORT ON H-5353 (ADDITIONAL WORK)

CHIEF OF PARTY - R. L. Schoppe

PROTRACTED BY - M. D. COOPER

VERIFIED AND INKED BY - M. D. COOPER.

SURVEYED IN SEPT. 1934

SURVEYED BY R. L. Schoppe

SOUNDINGS PLOTTED BY - M. D. COOPER

The records conform to the requirements, being neat, clear and legible. The few depth curves necessary could be accurately drawn. As this work was not plotted it was necessary for the verifier to plot positions, pencil soundings, and then verify and ink the work.

REMARKS:-

This work was for the purpose of developing four shoal spots, therefore whenever two soundings conflicted the shallower depth was taken.

at position 82-A the location of "Bell Buoy" is given this does not agree with the previous position\* of the buoy by approximately 250 meters. Therefore the position given at 82-A was not inked, calling attention to the penciled position, and passing decision up for the reviewer to make. The majority of the soundings conformed to the previous survey and no real discrepancies were noted.

M. D. Cooper - Verifier.

TIME 12 1/4 HRS.

\* New location of buoy shown in green and date marked.

R. L. J.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5353 (AD. WK., 1934)

Chief of Party - R. L. Schoppe.  
Surveyed by - R. L. Schoppe.

Purpose.

The purpose of this additional work was to further develop shoal indications on the 1933 work and called for in the review of that work.

Results.

The work called for was adequately accomplished. The following paragraph headings and discussion herein refer to paragraphs in the review of the original survey:

Paragraph 9 (1).

The 35 foot shoal in lat.  $38^{\circ}09.8'$ , long.  $75^{\circ}04.2'$  was developed and its limits defined. The least depth found in 1934 was 36 feet.

Paragraph 9 (2).

The vicinity of the 37 foot soundings in lat.  $38^{\circ}06.0'$ , long.  $75^{\circ}03.2'$  was developed. The least depth found in 1934 was 36 feet. The FLW bell buoy in this area was located in a position about 300 meters southwest of the 1933 position.

Paragraph 9 (3).

The area around the 35 foot sounding in lat.  $37^{\circ}59.4'$ , long.  $75^{\circ}00.4'$  was developed. A depth of 36 feet was found approximately 200 meters southwest of the 35 which was not verified, however a 37 foot sounding close by it indicates the old 35 foot sounding was probably correct.

Paragraph 9 (4).

The area in the vicinity of the 32 foot sounding in lat.  $38^{\circ}01.6'$ , long.  $75^{\circ}06.7'$  was developed and the extent of the shoaling was defined. Depths of 32 feet were found.

Reviewed by - R. L. Johnston, May 20, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

C. K. Green,  
Chief, Section of Field Records.

*C. K. Green*  
Acting Chief, Section of Field Work.

K. T. Adams  
Asst Chief, Division of Charts.

*K. T. Adams*  
Act. Chief, Division of H. & T.

Applied to Drawing of Chart 1220, July 13, 1935. H.B. additional  
" " " " 1109 July 24, 1935, (additional) H.B. work  
work