

5771

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: VIRGINIA

DESCRIPTIVE REPORT
~~Topographic~~ } Sheet No. 43
 Hydrographic }

LOCALITY
 Off ~~the~~ ^{shore} Virginia Coast
 East of Little Machipongo Inlet

~~Lat. 37° 20' to 37° 30'~~
 Long. 74° 58' to 75° 22'

1934

CHIEF OF PARTY
 H. A. Saran, Comdr., C&GS.
 Commanding Ship OCEANOGRAPHER

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. 43

REGISTER NO. 5770

State VIRGINIA

General locality Off ~~the~~ ^{shore} Virginia Coast ²¹

Locality East of Little Machipongo Inlet ²⁹
~~Lat. 37° 20' to 37° 36', Long. 74° 58' to 75° 00'~~

Scale 1-40,000 Date of survey July 31 - Aug. 29, 1934

Vessel Ship OCEANOGRAPHER

Chief of Party H. A. Seran

Surveyed by Field Officers

Protracted by J. S. Morton, C. A. George & W. F. Deane.

Soundings penciled by R. A. Earle and W. C. Russell

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by _____

Inked by R. Mc Cann

Verified by Mark J. Gurnee

Instructions dated April 27, 19 33

Remarks: _____

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET (Field No. 43)

PROJECT 142

VIRGINIA COAST, 1934

Ship OCEANOGRAPHER

H. A. Seran, Comdg.

SCALE 1-40,000

INSTRUCTIONS:

The work on this sheet was executed in accordance with the Director's instructions to the commanding officers of the ships OCEANOGRAPHER, LYDONIA and GILBERT, dated April 27, 1933 and modified June 3, 1933.

LIMITS:

The area comprising this sheet is from Lat. 37°20' on the south to a line on the north between Lat. 37°32', Long. 74°48' to Lat. 37°40', Long. 75°15'; from a line on the east between Lat. 37°20', Long. 75°00' to Lat. 37°32', Long. 75°48'; to a line on the west which extends between Lat. 37°20', Long. 75°30' and Lat. 37°40', Long. 75°15'. The sheet connects with field sheet 121 in the east, with field sheet 42 in the north, and with field sheets 44 and 45 in the west.

SURVEY METHODS:

The area on this sheet was surveyed by the Ship OCEANOGRAPHER using standard R.A.R. methods. The GILBERT and WELKER were used for station ships with the LYDONIA acting in that capacity in heavy weather during the absence of the WELKER.

Control buoys were part of the control loops established for the seasons work. The positions of the end buoys of the main loop were established by fixes on triangulation stations ashore and inter-buoy taut wire distances and azimuths were used in obtaining the positions of other buoys. To find the exact location of each buoy, all data was plotted on an aluminum sheet and the loops were then adjusted. The final position of each buoy was scaled from the aluminum sheet.

Soundings were obtained with both the fathometer and the handlead. Fathometer soundings were taken with the combination striker and oscillator fathometer, all soundings being obtained with the striker unit. Comparisons for fathometer soundings were taken approximately every hour. The methods of obtaining the corrections

to be applied to fathometer soundings are given under a separate heading. Except in a few cases all soundings under 10 fathoms were taken with the hand-lead.

The method of determining the velocity of sound for the distance between the sounding ship and station ships is described in a separate, special report.

FATHOMETER CORRECTIONS:

No regular system of corrections could be devised for this entire sheet; therefore, each day was treated as a separate unit and the fathometer corrections were obtained from the comparisons taken during said day. Due to noted differences of nearly a fathom, when the voltage in the fathometer circuit dropped, which was often the case when the ship stopped, different methods for obtaining the corrections were arrived at.

The following are methods of obtaining the different daily fathometer corrections:

- Mean up to last three comparisons: gradual application for last three comparisons. Reddy*
- A, C, D, E, G, H, J, K, N & Q Days -- On each of these days a mean of the differences between the hand-lead and fathometer soundings was obtained and applied thruout said day.
 - B Day - Corrections were obtained from and applied gradually between the 2nd and 3rd, and, 3rd and 4th comparisons; then a mean of all except the first two comparisons was applied during the remainder of the day.
 - F Day - The 3rd and 4th comparisons were rejected and a mean of the differences between the hand-lead and fathometer soundings on all other comparisons was applied thruout the day.
 - I Day - A mean of the differences obtained by the first four comparisons was applied until the time of the fourth comparison; then corrections were obtained from and applied gradually between the fourth and fifth comparison; thereafter, a mean of the differences between fathometer and hand-lead soundings on all other comparisons was applied.
 - M Day - Three comparisons where the difference between the fathometer and hand-lead soundings differed by more than two feet were rejected; then a mean of the difference between the types of soundings on all other comparisons was applied thruout the day.
 - P Day - Corrections were obtained from and applied gradually between the first and fourth comparisons; then a mean of the differences between the hand-lead and fathometer soundings on all other comparisons was applied during the remainder of the day.

DISCREPANCIES AND ADJUSTMENTS:

POSITIONS: Positions occurring between the station ships were not definite because the arcs usually overlapped or failed to meet. This was adjusted by dead-reckoning plotting based on accepted bomb positions.

In general, because of the scope of buoys etc, bearings to buoys could be given no weight, except as check measures.

In all cases, officers plotting the sheets used the experience gained in boat sheet plotting to adjust the lines. No cases occurred where it was deemed necessary to explain the procedure of this adjustment.

SOUNDINGS:

In general the crossings of sounding lines on this sheet were excellent; it being surprising to note the number of perfect crossings on different days when the fathometer was used and even when different buoys were used for control.

Where there were slight discrepancies it was generally obvious that they were due to either an irregular bottom or a slight displacement of the line.

Following is a list of the notable discrepancies of over 5 feet in sounding lines, in which the adjustment is not absolutely obvious or which cannot be taken care of by the rejection of a sounding or a slight change in position;

See Verification Report, III B: corresponding numbers

1. Six foot crossing after position 53 B. Probably due to several erroneous soundings. *Replot 53 (vi)* ✓
2. Seven foot crossing at position 121 D. Probably due to irregular bottom--soundings may be correct. ✓
3. Ten foot crossing between position 80 and 81 B. Probably due to several erroneous soundings. Bottom very irregular. ✓
4. Ten foot crossings of lines on either side of position 134 D. Soundings along this line appear to be too shoal. Probably due to fathometer. *Reject 99, 105, 101, 97* ✓
5. Ten foot crossings of lines on either side of position 76 E. Soundings between position 75 and 77 E appear to be too shoal. Probably due to fathometer. ✓
6. Nine foot crossing at position 4 F. Probably due to fathometer. Rejection of a few soundings will correct same. *Reject 15-77E also* ✓
7. Twelve foot crossing between positions 8 to 9 F. Soundings between 7 and 10 F appear to be too high. *85E relocated by rejecting one fix* ✓

Replot 121-D on LINE (Compass Course checks better) Add correction to soundings.

Move 10 3 E relocated among all from - possibly partially due to questionable readings on F day

8. Soundings on line 1 to 2h are a fathom higher than those on line 60 to 61c. Probably due to variable voltage in fathometer early in the day. *(Reject 1-24)*

9. Soundings between positions 106 and 107h are apparently too shoal as they fail to agree with crosslines by about a fathom. *TIME INTERVAL crowded - FOR STOP*

10. Soundings on line 73 to 74 N appear to be about 10 feet too shoal as there is no indication of these lower depths on any of the crosslines. *11-5P, 112-3P, 1-2Q
5 SOUNDINGS, 73-74, rejected*

11. Soundings immediately before position 8 q appear to be too deep fourteen foot crossings. *Q + R days shifted Sec Rep. III B, 11-16*

12. Soundings at the crossing between position 90 and 91 N are about 3 fathoms too shoal; a slight change in the R. A. R. positions on Q day would eliminate this. *Q + R days shifted Sec Rep. III B, 11-16*

13. The line of handlead soundings between position 58 and 62 Q appear to be far too deep when crossing all other lines. Leadsman were changed after position 58 Q and it is possible that the handlead soundings are erroneous. *Rejected - Sec Rep. III B, 11-16*

14. The soundings on and immediately after position 33 P are erroneous as various cross lines indicate the shoal in this vicinity. *Q AND R days shifted. Sec Rep. III B, 11-16*

15. Some fathometer soundings between positions 122 and 123 N appear to be several fathoms too deep. *Q and R days shifted. Sec Rep. III B, 11-16*

16. On the shoal in the S.W. corner of the sheet fathometer soundings were obtained on the main lines and all crosslines, (R day) were obtained with the handlead. The differences between the soundings on these different sets of lines is constant; however, as different sets of buoys were used for control, adjustments could either be made by raising the fathometer soundings about four feet or by moving the lines on R day towards the west. *Q AND R days shifted. Sec Rep. III B, 11-16*

DANGERS:

There are no shoals within the limits of this survey which would be termed as dangers.

COMPARISON WITH EXISTING CHART:

Except for a few lines, miles apart, there are no soundings on the existing chart (1221) of this area; therefore, it was impossible to make an adequate comparison between this survey and the chart.

RAR Cahier filed under H-5673

Respectfully submitted,

R. A. Earle
R. A. Earle, Lieut. (jg), C&GS.,
Ship OCEANOGRAPHER.

Approved, Forwarded:

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

STATIONS

<u>Day</u>	<u>Date</u>	<u>Soundings</u>		<u>Positions</u>		<u>Statute Miles</u>	
		<u>Fm.</u>	<u>H.L.</u>	<u>Fm.</u>	<u>H.L.</u>	<u>Fm.</u>	<u>H.L.</u>
A	July 31, 1934	396		50		49.1	
B	Aug. 1,	1157		121		138.0	
C	Aug. 7,	612		81		65.5	
D	Aug. 8,	1179		139		131.0	
E	Aug. 9,	916		112		108.0	
F	Aug. 10,	943		133		127.0	
G	Aug. 14,	1157		132		108.0	
H	Aug. 15,	1210		126		118.0	
J	Aug. 16,	835		104		68.6	
K	Aug. 17,	79		11		9.3	
L	Aug. 21,	321	225	97		25.0	22.9
M	Aug. 22,	841		105		81.1	
N	Aug. 23,	1212		130		127.6	
P	Aug. 24,	927	152	148		94.9	15.5
Q	Aug. 28,	84	235	62		8.0	18.0
R	Aug. 29,		645	131			60.2
TOTALS		11869	1257	1682		1259.1	116.6

HYDROGRAPHIC SURVEY NO. H5771

Smooth Sheet 1

Boat Sheet 1

Sounding Records 9 Vols. 5 Vols. Bomb Records

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes in Vol. 1

Landmarks for Charts (Form 567) _____

Statistics _____

Approved by Chief of Party H. A. Seran

Recoverable Station Cards (Form 524) _____

Special Chart for Lighthouse Service _____
(Circular Nov. 30, 1933)

Remarks _____

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5770

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

Number of positions on sheet	1682
Number of positions checked	... 25 (Approx.) 193 (Q+R days)
Number of positions revised	... 7 ..
Number of soundings recorded	13126
Number of soundings revised	1000 (Approx.)
Number of signals erroneously plotted or transferred

Date: July 17, 1925

Verification by Mark S. Lurnee 75 Hrs. Time: 110 Hours.
Inked by R. M. C. Cann - 35 Hrs.

Review by R. L. Johnston Time: 20 1/2 "

Verification Report H-5771 (1934)

I Conformity to Hydrographic Manual

The records are neat and legible and conform to the requirements as specified in the Hydrographic Manual except as otherwise noted below:

- The arcs, locating positions, are so wide as to unnecessarily obstruct soundings.
- All distance circles from all buoys are in the same color - yellow - and are often confusing (Page 55 R.A. Pos. Finding) Spec. Publ. 146

II Depth Curves

The 60 and 120 foot curves are completely inked except where the area concerned is covered by a junction, in which case the curves are left, temporarily, in pencil.

III Field and Office Plotting

The usual method of verification was followed. Several changes have been made in the field work which are explained below. Under "Crossings", the numbers correspond to the numbered paragraphs of the Descriptive Report under the general heading, "Soundings", beginning on page 3.

A. Lathometer Corrections

- D day - Changed to "a mean of the differences was used up to the last three comparisons; after that, a gradual application was used" This change was made by the verifier, and the records and soundings so corrected.
- F day - No change has been made, but attention is invited to the possibility of using the first four comparisons with a gradual correction, and using a mean of the remainder of the comparisons. Such a change would improve the crossing 8-9F (see #7 under Crossings), but would be disadvantageous to prior crossings of this day. (Lat. $37^{\circ} 24.5'$; Long. $75^{\circ} - 06'$)

B. "Crossings" (Numbers correspond to those of D.R. Page 3)

- 538 relocated on time, log, and course.
(see also explanation following #4 below)
(Lat. $37^{\circ} 29'$; Long. $74^{\circ} 52'$)

2. See explanation following * 4 (121D)
3. Rejected five soundings 80-81 B (Lat $37^{\circ}29'$; Long $74^{\circ}52.6'$)
4. See explanation immediately following (134D)

(EXPLANATION: In regard to * 1-4, incl., in each case the change made was supplemented by changing the comparisons on D day [see III A 1 above] and by replotting 129-135 D using single cuts and plotting on line.

5. 71-77 E day left in pencil. The crossings from 72-73 E and from 75 to 77 E are poor. Other crossings good. The course does not check the compass readings, and the fix at 71 E is questionable. It is left to the discretion of the reviewer whether to reject 71-77 E, parts thereof, or to retain all soundings. ~~Some~~ Soundings between pos. 75 E and pos. 77 E omitted _{R 299}
 6. Position 85 E was relocated by rejecting one cut and plotting on line. (Lat $37^{\circ}26'$; Long $75^{\circ}10.5'$)
 7. 103 E was relocated, using one cut and course. This crossing is still poor. (See III A 2 above) (Lat $37^{\circ}24.5'$; Long $75^{\circ}06'$)
 8. 1-2 H rejected: variance in fathometer early in the day. ^(Lat $37^{\circ}31.5'$; Long $75^{\circ}09'$)
 10. * Five soundings, 73-74 N, rejected. They are too shoal, and disproved by crosslines 122-125 P, 112-113 P, 1-2 Q, and are probably due to fathometer variations. (Lat $37^{\circ}25.5'$; Long $75^{\circ}22.5'$)
 9. * The time interval is crowded toward 107 h - boat coming to a stop. Crossings thereby agree (Lat $37^{\circ}29.5'$; Long $75^{\circ}22'$)
- 11-16 These crossings are all corrected by a shift which has been made in J and R days by the verifier. On the assumption that a shift occurred in the position of the buoys between Para 2 days - (approved by K.T. Adams, C.K. Green, and A.L. Stalowitz) R day was moved $560 M - 280^{\circ} TRUE$ and Q day was moved $680 M - 280^{\circ} TRUE$, practically the same amount for each day. These two days were the last two day's work on the sheet. Positions 58-62 Q and 4-5 Q were rejected. The result is excellent agreement of crossings and adjacent lines.
17. 28 L day was moved by rejecting one cut and replotting using cut and course. (Lat $37^{\circ}25.2'$; Long $75^{\circ}10'$)
 18. 30 F day replotted using one cut and course (Lat $37^{\circ}24.5'$; Long $75^{\circ}10.5'$)

2+R
days - S.W.
cross of
sheet.

IV Junctions:

Junction has been made on this sheet with #5673 (1934),
and the agreement is satisfactory

Other contemporary surveys which join this sheet,
and for which verification has as yet been uncompleted,
are: #5713 (1934); #5715 (1934); and #5770 (1934).

V Remarks

None

Respectfully submitted,

Mark S. Gurnee.

July 18, 1935

lce

TIDE NOTE FOR HYDROGRAPHIC SHEET

May 28, 1935.

Division of Hydrography and Topography:

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

Tide Reducers are approved in
9 volumes of sounding records for

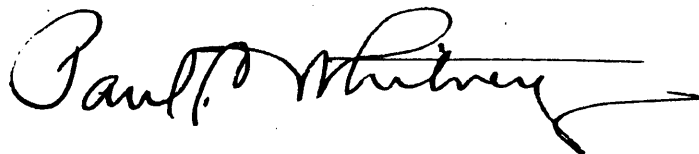
HYDROGRAPHIC SHEET 5771

Locality East of Little Machipongo Inlet, Virginia Coast.

Chief of Party: H. A. Seran in 1934
Plane of reference is mean low water reading
4.6 ft. on tide staff at Assateague Anchorage
8.8 ft. below B.M. 15

Height of mean high water above plane of reference is 3.7 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

Ref.
601
651

COPY

TREASURY DEPARTMENT
UNITED STATES COAST GUARD
Norfolk, Va.

82-
CKG

3 Oct., 1935.

Commanding Officer,
U. S. Coast & Geodetic Survey Steamer OCEANOGRAPHER,
Norfolk, Virginia.

Sir:

This office has been directed by the Commandant, U. S. Coast Guard, to endeavor to locate the wreck of the S.S. MONROE, which was sunk in 1914 in collision with the S.S. NANTUCKET. The Commandant's letter gives the reported position as latitude $37^{\circ} 37'$ north, longitude $75^{\circ} 16'$ west, although this position may be in error as the collision occurred during a fog.

It is understood that the Coast & Geodetic Survey has been engaged during the past year or two in charting the inlets south of Chincoteague, Va., and it is thought possible that the work may have included soundings off shore.

It will be appreciated if you will advise me whether anything was observed by the force working under your direction in that locality which would indicate the presence of the wreck of the MONROE.

Respectfully,

(Signed) R. C. WEIGHTMAN,
Captain, U.S. Coast Guard,
Commander, Norfolk Division.

C O P Y

c/o Postmaster, Norfolk, Va.

Ship OCEANOGRAPHER

Ref.
2342

October 14, 1935

To: Commander, Norfolk Division,
U. S. Coast Guard,
Norfolk, Virginia

From: The Commanding Officer,
U.S.C. & G.S.S. OCEANOGRAPHER.

Subject: Wreck of S.S. MONROE.

Reference: (A) Your 601/651: 3 October 1935.
(B) My 2342: 7 October 1935.

The photostat copies of the hydrographic sheets showing the soundings taken by this party in the vicinity of the reported position of the wreck of the S. S. MONROE in lat. $37^{\circ}37'$ north, long. $75^{\circ}16'$ west, have been received from the Washington office and are enclosed for your information.

It will be noted there are no suspicious indications in that immediate vicinity. On former editions of chart 1109 there was a 54 foot sounding shown about lag. $37^{\circ}37'$ north, long. $75^{\circ}14'$ west, but this sounding has been removed since the 1934 survey.

It also will be noted that the sounding lines are in general about a half a mile apart in the vicinity of the location of the wreck mentioned in reference (A). It would be possible for a wreck to lie between sounding lines and the only way we could be sure of the entire area would be to wire drag it, the necessity for which appears doubtful in the extreme.

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

HAS/e

C O P Y

c/o Postmaster, Norfolk, Va.

Ship OCEANOGRAPHER

Ref.
2342

October 7, 1935

To: Commander, Norfolk Division,
U. S. Coast Guard,
Norfolk, Va.

From: Commanding Officer,
U.S.C. & G.S.S. OCEANOGRAPHER.

Subject: Wreck of S. S. MONROE.

Reference: Your 601/651: 3 October 1935.

For the past three seasons the fleet of Coast Survey ships based on Norfolk has been engaged in hydrographic work off-shore, the small amount of work that was done in the inlets south of Chincoteague, Virginia was merely incidental to the main project.

In regard to the location of the wreck of the S. S. MONROE, the records of the results obtained in the vicinity of the location mentioned in reference have been forwarded to the Washington office. A request has been made for a photostat copy of the sheet of that area. This should be here by the end of the week. Upon its receipt the commanding officer, either will write you again or call in person.

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

HAS/e

Section of Field Records.

REVIEW OF HYDROGRAPHIC SURVEY NO. 5771 (1934) FIELD NO. 43

East of Little Machipongo Inlet, Offshore Virginia Coast
Surveyed in July - August 1934
Instructions dated April 27, 1933 (OCEANOGRAPHER)

Hand Lead and Fathometer Soundings.

R. A. R. Control

Chief of Party - H. A. Seran.
Surveyed by - Officers of Steamer OCEANOGRAPHER.
Plotted by - J. S. Morton, C. A. George, W. F. Deane.
Soundings penciled by - R. A. Earle, W. C. Russell.
Verified by - M. S. Gurnee.
Inked by - R. McCann.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except as follows:

- a. Distance arcs from all buoys are in the same color (yellow) and are often confusing (Page 55 S. P. 146).

The Descriptive Report is clear and comprehensive and adequately covers all matters of importance.

2. Compliance with Instructions for the Project.

The character and extent of the survey fully complies with the instructions for the project.

3. Sounding Line Crossings.

In general the crossings of sounding lines as well as the agreement of adjacent parallel lines is considered excellent. There are some differences which are listed in the Descriptive Report. Some of these discrepancies at crossings were improved by replotting and shifting the lines in the office. (See verifier's report).

4. Depth Curves.

Within the limits of the survey, the usual depth curves can be drawn satisfactorily.

5. Junctions with Contemporary Surveys.

The junction on the north with H-5673 (1934) is satisfactory.

The inshore junction on the west with H-5715 (1934) will be considered in the review of that sheet.

The inshore junction on the west with H-5770 (1934) is satisfactory.

The offshore junction on the east with H-5713 (1934) is adequate, however, the soundings are not in close agreement in several places with those of the present survey. The control is about equally strong on the two sheets and it was not possible to make any logical adjustment of the lines to smooth out these differences. Since the delineation of the 20 fathom curve was involved this curve was drawn in its most reasonable position (mainly from soundings of the present survey) and those soundings from H-5713 (1934) that conflicted with this curve were omitted. No contemporary survey to the southward has been received.

6. Comparison with Prior Surveys.

a. H-237 (1849-50).

This survey, on a scale of 1:400,000, shows one line of widely spaced track soundings within this area. It should be considered as reconnaissance. The information on this survey has been superseded on the charts and it needs no further consideration.

b. H-348 (1852).

This survey, on a scale of 1:40,000, covers a narrow strip along the western edge of the present survey and is in fair general agreement. The soundings on the present charts south of latitude $37^{\circ} 30'$, and west of longitude $75^{\circ} 22'$ originate with this survey. This survey should be superseded by the present survey which is more detailed and is believed to be better controlled.

c. H-1498a (1880-3) and H-2920a (1882-7).

These are copies of sailing Chart A, on a scale of 1:1,200,000, on which soundings obtained by the U. S. F. C. Steamer ALBATROSS are shown. Only a few soundings, none of which are charted, fall within this area. These surveys should not be used for charting within the area covered by the present survey.

d. H-1720 (1886).

This survey, on a scale of 1:200,000, covers most of the area of the present survey. The lines are approximately 5 miles apart and soundings are spaced about 2 miles apart. Several of these sounding lines are shown on the present charts. This survey is in fair general agreement with the present survey but shows no outstanding features which need be carried forward. It should now be superseded by the present survey which is more detailed and better controlled.

e. H-3314 (1911).

This survey, on a scale of 1:200,000, shows three lines which cross the area of the present survey. They are in fair agreement with the present depths but show no critical soundings which need be carried forward. These lines are shown on the present charts. This survey is controlled by a crude type of dead reckoning which made no allowance for current or leeway. For this reason it should be superseded within the common area by the present survey which is better controlled.

f. H-4178 (1921).

This survey, on a scale of 1:120,000, barely touches the southern limits of the present survey at latitude $37^{\circ} 20'$. This survey is controlled by a refined type of dead reckoning, and is in general agreement with the present survey. Until a new survey covering the area south of the present survey is received, H-4178 (1921) is not superseded.

g. H-4194 (1921).

This survey, on a scale of 1:40,000, overlaps a thin strip of the present survey along latitude $37^{\circ} 20'$, west of longitude $75^{\circ} 23'$. It is in general agreement with the present survey and is not superseded.

7. Comparison with Charts No. 1221 (corrected to June 15, 1934), and No. 1109 (corrected to December 4, 1934.)

Within the area of the present survey the charts are based on surveys discussed in the foregoing paragraphs with the following exceptions:

- a. The 9 fathom spot shown on the present charts in latitude $37^{\circ} 37.5'$, longitude $75^{\circ} 14.0'$ represents the position of an old wreck (Steamer MONROE). It was originally charted as 6 fathoms and was located by 3 bearings. (Lighthouse N. to M. 7 of 1914). The upper portion of the wreck was later destroyed, "leaving a clear depth of 9 fathoms". (Hydrographic Office N. to M. 14 of 1914). A fairly close development of the charted 9 fathoms, with cross lines spaced about 200 meters apart, showed depths ranging from 85 to 95 feet without any indication of a shoaling. At the time of field work the present party had no knowledge that the 54 foot sounding represented the clearance depth over a sunken wreck. In later correspondence with the U. S. Coast Guard at Norfolk, Virginia, the Commandant's letter gives the reported position

of the wreck as latitude $37^{\circ} 37'$, longitude $75^{\circ} 16'$, which does not check the original location and falls close to a sparsely developed area on the present survey. (See letters attached to this report.) In view of the uncertainty in position of the wreck and since the present examination was made without knowledge of the existence of the wreck, the 54 foot sounding should be retained on the charts in its present charted position until more definitely disproved by the wire drag.

- b. No authority could be found for the 10 fathom spot shown on Chart No. 1109 in latitude $37^{\circ} 36.6'$, longitude $75^{\circ} 16.5'$. It is of no importance, however, since the present survey developed a shoaling with a least depth of 59 feet in practically the same position as well as several shoals with shoaler depths south of it.

8. Field Plotting.

The prescribed amount of field plotting was well done.

9. Additional Field Work Recommended.

This survey is considered complete and no additional work is required, except that the area of the wreck of the S. S. MONROE (discussed in para. 7a of this review), should be wire dragged. When this is undertaken, the vicinity of both positions of the wreck should be dragged.

10. Superseding Old Surveys.

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

H-237	(1849-50)	in part	
H-348	(1852)	"	"
H-1498a	(1880-2)	"	"
H-1720	(1886)	"	"
H-2920a	(1882-7)	"	"
H-3314	(1911)	"	"

11. Reviewed by - R. L. Johnston, October 1, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

W. B. Jordan
Chief, Section of Field Works

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

W. H. de
Chief, Division of H. & T.

Applied to drawing of Chart 1109 - May 5, 1936 - J.F.W.

Applied to drawing of Chart 1222 - May 25, 1936 G.H.S.

Applied to 1221 (south astoria) Mar 1ST 1960 C.R.W.