

# 6966

Diag'd. on Diag. Ch. No. 77-3

Form 504

U. S. COAST AND GEODETIC SURVEY  
DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. 104 Office No. H-6966

### LOCALITY

State Maryland

General locality Patuxent River

Locality Mill Creek and Tributaries

1944

CHIEF OF PARTY

T. B. Reed

LIBRARY & ARCHIVES

DATE .....

B-1870-1 (1)

# 6966

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.

REGISTER No. **H6906**

Field No. **104**

State Maryland

General locality Patuxent River, Chesapeake Bay

Locality Creek and Tributaries<sup>26</sup>  
MILL, BACK and ST. JOHNS CREEKS

Scale 1:5,000 Date of survey February and March, 1944 - April

Instructions dated September 11, 1943 and October 22, 1943

Vessel COWIE

Chief of party Thos. B. Reed

Surveyed by G. E. Russell, Jr.

Soundings taken by fathometer, graphic recorder, hand lead, ~~wire~~ and pole

Protracted by G.B. Woolley

Soundings penciled by G.B. Woolley

Soundings in ~~fathoms~~ feet at MLW ~~MLLW~~

REMARKS: This sheet is to be smooth plotted in Washington office



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON 25

IN REPLY ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY  
AND NOT THE SIGNER OF THIS LETTER  
AND REFER TO NO. 826-RGR

February 23, 1944

C  
O  
P  
Y

To: The Commanding Officer  
U.S.C. & G.S. Motor Vessel COWIE  
Oxford Boatyard Company  
Oxford, Maryland

From: The Director  
U. S. Coast and Geodetic Survey

Subject: Replot of Air Photographic Surveys, Project 307

The field photographs and planetable sheet, Field No. C, <sup>T-6751</sup> borrowed from your office on January 27, 1944 were returned to you by mail on February 19, 1944.

The radial plot for the entire area of sheets T-8542, T-8543, and T-8544 has been relaid in this office using the additional triangulation recently established by your party. This additional control has strengthened the plot and resulted in changes in the positions of details from 0.5 to 1.2 millimeter in the area around Hellen Creek. The positions of all topographic stations have been relocated and the shoreline redetailed in this area. In addition to the changes at Hellen Creek, a few topographic stations on the west side of the river in the vicinity of Cuckold Creek have been changed slightly; this is, less than 0.5 millimeter.

The new radial plot held well to the field inspection position at station "Creek" and to the new position for "Stump Reference Mark." Apparently, there is an error in the geographic position of the old station "Stump," the cause of which has not yet been determined.

Piling and new piers shown on planetable sheet C have been transferred to T-8543 and T-8544. Sections of shoreline sketched on the back of sheet C, covering areas where the shoreline was obscured by trees on the photographs, also have been transferred to the air photographic survey sheets.

Topographic stations located on planetable sheet C which were also originally located by the air photographic plot have been transferred to T-8543 and T-8544, and have been tied in to the new air photographic plot. The planetable and air photographic locations are in agreement except for station "Chimney at west end of hotel (9)," latitude  $38^{\circ}19.2'$ , longitude  $76^{\circ}29'$ . There is a difference of about 0.8 millimeter between the planetable and air photographic location at this point. The planetable position is accepted. The difference may be due to erroneous identification on the photographs.

No changes have been made on air photographic surveys T-8545 and T-8546. One ozalid print each of T-8543 and T-8544 on which the changed areas have been circled in pencil will be forwarded to you. Reverse tracing paper prints and chart paper prints of T-8544 have been ordered to supersede those originally furnished to you. These will be forwarded within about one week.

Please forward the remaining planetable sheets between Point Patience and the bay as soon as they can be spared by your party. These sheets can be photographed and returned to you immediately if necessary. The remaining planetable sheets are desired so that all details common to the planetable and air photographic surveys may be brought to exact agreement. This is particularly desirable where certain of the marked topographic stations located on the 1:10,000 scale air photographic surveys are being relocated on the 1:5,000 scale planetable surveys.

Upon receipt of the 1:5,000 <sup>T-6927</sup> scale planetable surveys, it is intended to redetail the shoreline on the air photographic surveys at Back Creek and Mill Creek with a fine line so that it can be enlarged and used on the 1:5,000 scale hydrographic smooth sheets without loss of details.

As soon as the remaining planetable sheets are received and the additions and corrections made on air photographic surveys T-8542 and T-8543, new ozalid prints and new reverse tracing paper prints will be furnished to you.

To summarize, you will be furnished with new copies of T-8542, T-8543, and T-8544 which will include all corrections made after receipt of the additional triangulation and planetable surveys. These new prints shall supersede those originally furnished to you. Only the new prints of T-8542, T-8543, and T-8544 shall be forwarded to the processing office.

/s/ L. O. Colbert

Director



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON 25

IN REPLY ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY  
AND NOT THE SIGNER OF THIS LETTER  
AND REFER TO NO. 826-RCR

March 20, 1944

C  
O  
P  
Y

To: The Commanding Officer  
Motor Vessel COWIE  
U. S. Coast and Geodetic Survey  
% Postmaster  
Solomons, Maryland

From: The Director  
U. S. Coast and Geodetic Survey.

Subject: 1:5,000 Scale Graphic Control Surveys T-6927A  
and T-6927B, Project 307

The above graphic control surveys have been reduced to 1:10,000 scale and applied to air photographic surveys T-8542 and T-8543.

In the entire area of Back Creek and at the entrance to Mill Creek the graphic control and air photographic surveys were in substantial agreement. Where minor differences exist, the air photographic surveys have in practically all cases been corrected to agree with the planetable work. However, beginning just above the entrance to Mill Creek at approximate latitude  $38^{\circ}19.5'$  and extending northward and eastward there is an increasing difference between the two surveys. At the upper end of St. Johns Creek this difference amounts to some 20 meters and at the eastward end of Mill Creek to approximately 25 meters. These differences have been measured at topographic stations common to the two surveys.

The radial plot has been checked in the office, but cannot be changed to agree with the planetable work. In this case the air photographs span across the area, reaching control in the neighborhood of Drum Point, Solomons, and Hellen Gut, thereby affording a fairly rigid plot. It is believed that the point locations on the air photographic plot are not in error in excess of 5 meters.

Since there was no triangulation control for the plane-table work above the entrance to Mill Creek, it is thought that the difference might be due to loss of distance and azimuth on the graphic control surveys.

Copies of the air photographic surveys at 1:10,000 scale and 1:5,000 scale covering the area will be forwarded to you, together with the graphic control sheets T-6927A and T-6927B, March 21 or 22. Please advise this office if you find any explanation for these differences other than stated in this letter. If it is reasonably easy to do so, the work might be checked by establishment of a triangulation intersection point at or near the head of St. Johns Creek and the head of Mill Creek. It might also be practicable to extend planetable azimuths from points near triangulation control up the axes of Mill Creek and St. Johns Creek and thereby test the accuracy of the graphic control work. It is realized, of course, that this may have been done during the progress of the original graphic control surveys.

In the case that additional field work appears to you to be impracticable or unwarranted at this time, it is thought that the graphic control and hydrographic work can be adjusted to the air photographic surveys shoreline and topographic stations without serious loss of accuracy.

The 1:10,000 scale graphic control surveys T-69~~27~~<sup>51</sup> and T-69~~28~~<sup>52</sup> have been applied to the air photographic surveys. There were no appreciable differences in position. Copies of the revised air photographic surveys will be furnished to you in a few days.

/s/ J. H. Hawley

Acting Director



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON 25

IN REPLY ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY  
AND NOT THE SIGNER OF THIS LETTER  
AND REFER TO NO. 826-RCR

October 23, 1944

MEMORANDUM

To: Mr. Edmonston

Subject: Surveys of Back Creek and Mill Creek,  
Project 307, Patuxent River

*T8542  
T8443  
for Hydro*

This project is covered by air photographic surveys T-8542 to T-8545, inclusive. The radial plot and detailing of shoreline on these sheets were completed in the fall of 1943, and copies furnished to the hydrographic party.

After beginning operations the hydrographic party decided to establish additional triangulation and to make graphic control surveys for additional hydrographic control. The graphic control surveys of the ~~Main~~ River were on 1:10,000 scale. These were forwarded to this office together with the new triangulation and the air photographic surveys were checked and revised and new copies furnished to the hydrographic party. Details of this revision of the air photographic sheets are given in the attached copy of the letter to the Commanding Officer of the COWIE, dated September 23, 1944.

Graphic control surveys T-6927A and T-6927B covering Back Creek and Mill Creek were made on the scale of 1:5,000 for control of 1:5,000 scale hydrography. When submitted to this office, these graphic control surveys could not be made to agree with the air photographic sheets. After a careful check of the radial plots in this office, it was concluded that the graphic control surveys were appreciably in error. This situation is discussed in the attached copy of the letter of March 24, 1944, addressed to the Commanding Officer of the COWIE. Subsequently, the Commanding Officer of the COWIE left the boat sheet for this area, and the graphic control sheets, in this office for adjustment. This adjustment has been accomplished as follows:

The area is covered by air photographic surveys at 1:20,000 scale made for production of quadrangles as well as by the 1:10,000 scale sheets mentioned above. The two plots are in substantial agreement. The graphic control work agrees with neither. It is concluded that the graphic control work is in error due to lack of triangulation. ✓

Attached to this memorandum is a tracing of the shoreline from air photographic surveys T-8542 and T-8543. The air photographic surveys contain a number of points common to the graphic control surveys. The signals on the graphic control surveys have been adjusted into position on the air photographic shoreline and are shown on the tracing in red. Signals in black were located by the air photographic surveys. ✓

It is suggested that the smooth hydrographic sheets be plotted at scale 1:10,000 using the attached tracing as a base, and that the graphic control sheets T-6927A and T-6927B be superseded. The signals from the graphic control sheets have not been transferred to planimetric maps T-8542 and T-8543. ✓

*B. G. Jones*  
B. G. Jones



DESCRIPTIVE REPORT

FOR HYDROGRAPHIC SURVEY No. 104 (Field No. )

PATUXENT RIVER, PROJECT CS-307, Feb., <sup>April</sup> ~~March~~, 1944

This survey was made in accordance with instructions from the Director dated September 11, 1943. The scale of the survey was 1:5,000, as was authorized by the Director's letter of October 22, 1943. The survey includes all of Mill, Back and St. Johns Creeks. A satisfactory junction was made with Hydrographic Survey No. 6876 <sup>(1944)</sup> at its southeastern end.

Standard hydrographic methods were used. The work was accomplished with a 25 foot skiff and a rearming barge loaned to this party by the Naval Mine Warfare Test Station. The sounding lines were controlled by sextant angles to shore objects. In some cases on the inshore lines and in the creeks the sounding boats were controlled by distances and directions to points and signals. A Submarine Signal Co. Type 808 depth finder was installed on the boats. Satisfactory bar checks were obtained. A special report has been filed covering corrections to soundings on Project CS-307; however the 808 depth finder was installed on the 25 foot skiff after the report had been mailed to the Norfolk office. The same procedure was followed in obtaining and computing the corrections to the skiff soundings as was followed on the other sheets. The bar check curves and lists of corrections to be applied to the soundings are included in this report for the days on which the fathometer was used on the skiff. Corrections for the days when the rearming barge was used are covered in the report mentioned above. Duplicate copies of the corrections are included in this report.

The fixes, when possible were taken at such times as the fix lines would appear on one of the divisions of the fathogram. At odd time intervals when the fix line was not observed on a division of the fathogram, the soundings have been scaled in equal time intervals by means of spacing dividers. The soundings on the boat sheet were plotted with roughly computed depth recorder corrections and reduced to predicted tides. Wind conditions have considerable effect on the tides in this area and in some cases the boat sheet soundings may vary as much as 2 feet from the final soundings.

Triangulation stations and signals located by graphic <sup>See Par. 1 of Review</sup> control were used entirely on this sheet. There is one range <sup>38-18.15' 272-2.15'</sup> on the sheet. This range was constructed for the use of Navy landing craft entering Back Creek north of Ma Leg Island. The range is not very sensitive but is sufficient for the landing craft at the Naval Amphibious Training Base. The entering bearing of this range is 292° true. A sounding line was run on this range.

The inshore lines and a part of Mill Creek were sounded with a sounding pole and lead line. These lines were controlled in the same manner as described for the fathometer work. A 10 second interval was used for the pole and lead line sounding.

There are no dredged channels on this sheet. Back Creek has a depth of 12 feet for about 1/2 mile above the entrance and about 9 feet for approximately 3/4 mile above the entrance and 4 feet for another 1/2 mile. Mill creek has a depth of about 12 feet for 1 1/8 miles above the entrance and 8 feet for another 1/2 mile. There are several smaller creeks adjacent to Mill Creek with from 6 to 9 feet of water in them. St. Johns Creek has a depth of about 9 feet for 1/2 mile above its junction with Mill Creek and 6 feet for another 1/2 mile.

There are several unmarked bars in the creeks and they should be navigated with caution above the areas where aids to navigation exist. The non-floating aids in this area consist of pile beacons or lights constructed on piles. These are destroyed frequently by the amphibious landing craft operating in this area and often considerable time elapses before they are rebuilt. The floating aids to navigation were located by using prominent objects for signals.

This area is covered by a part of Hydrographic Survey No. H-2931 (scale 1:20,000) surveyed in 1908. Because of the difference in scale a detailed comparison was not made but in general they appear to agree fairly well.

The geographic names in this area were investigated by War Mapping Party No. 2 within the past year. Coast Pilot information has been forwarded to the office in a separate report.

#### STATISTICS

Boat used	Statute Miles of Sounding Lines	Number of Soundings	Number of Positions
Navy Launch	28.9	1938	392
Skiff	<u>41.4</u>	<u>3449</u>	<u>758</u>
Totals	70.3	5387	1150

Total area surveyed 3.7 square statute miles.

Respectfully submitted,

*George E. Russell Jr.*

George E. Russell, Jr.  
Ensign, C. & G. S.

Approved and forwarded,

*Thos. B. Reed*

Thos. B. Reed  
Chief of Party

LIST OF SIGNALS OUTSIDE THE HIGH WATER LINE  
Sheet No. 104 (Field No.)

<u>Name</u>	<u>Description</u>
✓ ANN	Light on pier
✓ BEA	Back Creek Light No. 5
✓ COCK	Flagpole on pier
(not used) FOOL	Pile
✓ GEM	Esso sign on pier
(not used) HIVE	Texaco sign on pier
✓ HOG	Solomons Island Wharf light, 1943
✓ INN	Gulf sign on pier
✓ JOB	Tallest pile in cluster
✓ KEG	Tallest pile in cluster
✓ NET	Whitewash on wreck
(not used) NLT	Pile
✓ ON	Back Creek Light No. 2
✓ SAW	Pile

TIDAL NOTE

Tide reducers for this sheet were from the  
standard automatic gage at Solomons, Maryland.

DEPTH RECORDER CORRECTIONS  
SHEET NUMBER 104 (field number)

Date Day Correction	Feb. 10 a-day		Feb. 12 b-day		Feb. 14 c-day	
	From	To	From	To	From	To
+ 1.0	0.0	1.0				
+ 0.8	1.5	3.0				
+ 0.6	3.5	4.5				
+ 0.4	5.0	6.5				
+ 0.2	7.0	8.0				
0.0	8.5	10.0	0.0	3.0	0.0	2.5
- 0.2	10.5	11.5	3.5	6.0	3.0	5.0
- 0.4	12.0	13.0	5.5	7.0	5.5	7.5
- 0.6	13.5	15.0	7.5	9.0	8.0	10.0
- 0.8	15.5	19.0	9.5	11.0	10.5	12.0
- 1.0	19.5	23.0	11.5	13.0	12.5	15.0
- 1.2	23.5	26.5	13.5	15.0	15.5	17.0
- 1.4	27.0	30.0	15.5	17.0	17.5	19.5
- 1.6	30.5	34.0	17.5	19.0	20.0	22.0
- 1.8			19.5	22.5	22.5	26.0
- 2.0			23.0	27.0	26.5	32.0
- 2.4			27.5	31.0		
- 2.4			31.5	35.0		

NOTE:-

When the sounding appears on "B" scale increase correction by -1.5'

CORRECTION - FEET

SHEET 104 (FIELD NO)

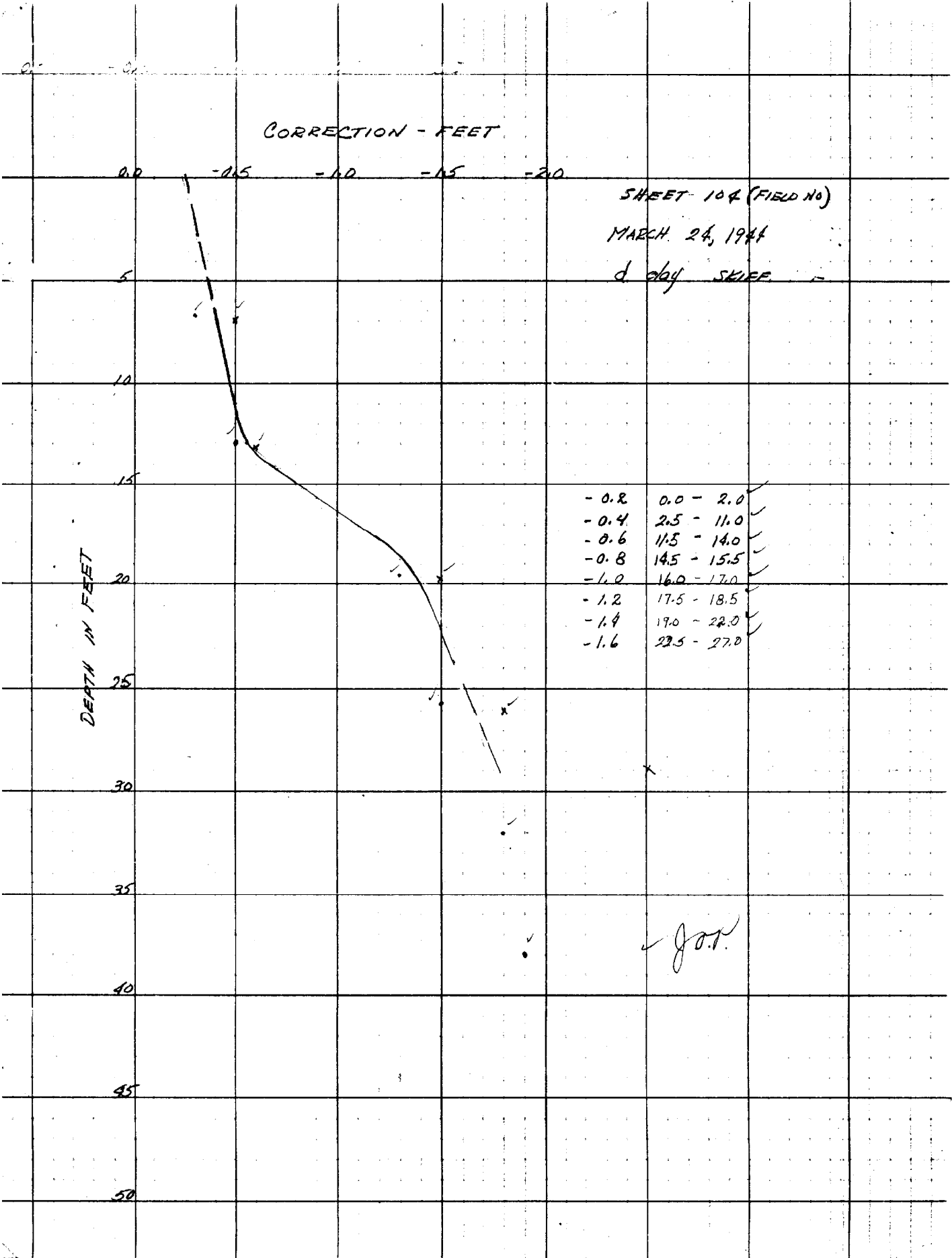
MARCH 24, 1944

d. day SKIFF

DEPTH IN FEET

- 0.2	0.0 - 2.0	✓
- 0.4	2.5 - 11.0	✓
- 0.6	11.5 - 14.0	✓
- 0.8	14.5 - 15.5	✓
- 1.0	16.0 - 17.0	✓
- 1.2	17.5 - 18.5	✓
- 1.4	19.0 - 22.0	✓
- 1.6	23.5 - 27.0	✓

J.O.R.



CORRECTION IN FEET

0.0      -0.5      -1.0      -1.5      -2.0

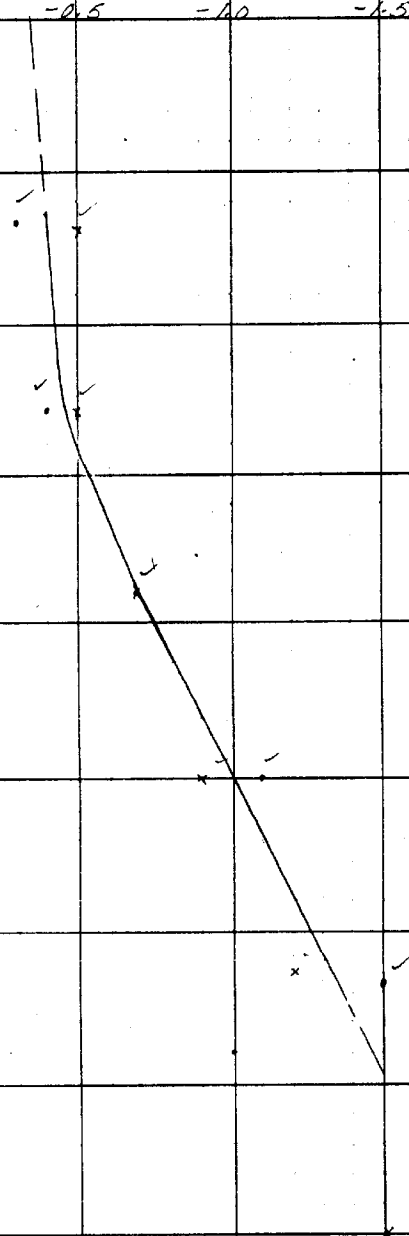
SHEET 104 (FIELD No

MARCH 27, 1944

e day SKIFF

DEPTH IN FEET

0  
5  
10  
15  
20  
25  
30  
35  
40



-0.4	0.0 -	14.0 ✓
-0.6	14.5 -	19.0 ✓
-0.8	19.5 -	23.0 ✓
-1.0	23.5 -	27.0 ✓
-1.2	27.5 -	31.0 ✓
-1.4	31.5 -	34.5 ✓

*J.P.*

CORRECTION IN FEET

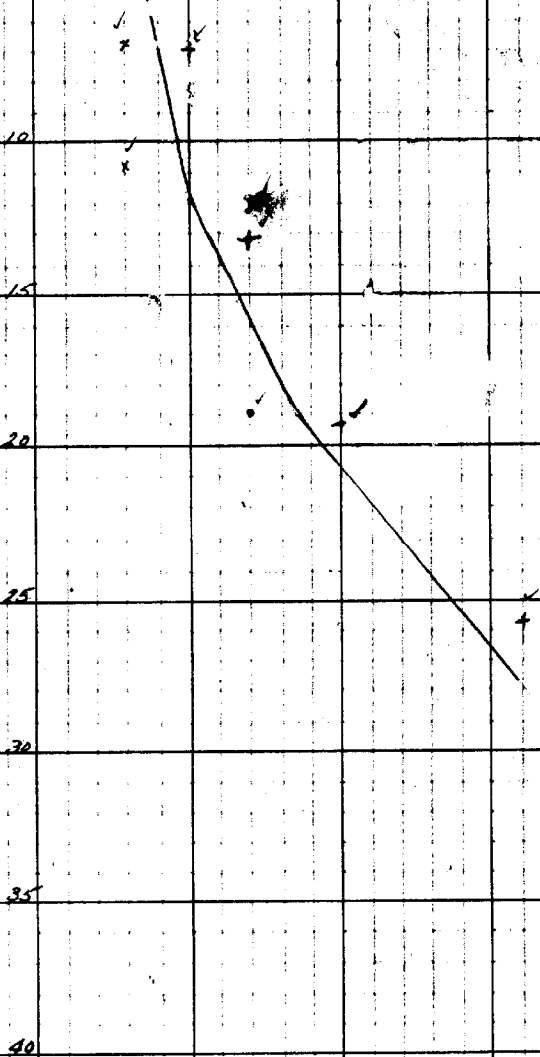
0.0      -0.5      -1.0      -1.5      -2.0      -3.0

SHEET 104 (FIELD NO.)

MARCH 28, 1944

P. JOY SKIFF

DEPTH IN FEET



-0.2	0.0	1.5
-0.4	2.0	11.5
-0.6	12.0	16.0
-0.8	16.5	19.5
-1.0	20.0	22.0

✓ Joy

MEMORANDUM TO PROCESSING OFFICE

Sheet No. 104

1. All soundings have been reduced and checked except April 1, 1944 (h day, skiff), for which the tide reducers were not on hand. The hourly heights from the Solomons gage for this day can be obtained from the Division of Tides and Currents.
2. The descriptive report has been completed as far as possible before the smooth sheet is plotted.
3. The depth curves were drawn at 10 foot intervals on the boat sheet as this was the interval requested by the Navy.
4. The depth curves will be considerably changed in some places due to the predicted tide reducers used on the boat sheet.



Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6966** .....

Records accompanying survey:

Boat sheets <sup>1</sup>...; sounding vols. <sup>5</sup>...; wire drag vols. ....;  
bomb vols. ....; graphic recorder rolls <sup>6</sup>...;  
special reports, etc. ....  
.....

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

Number of positions on sheet	.....	1150
Number of positions checked	.....	95
Number of positions revised	.....	6
Number of soundings recorded	.....	5387
Number of soundings revised (refers to depth only)	.....	40
Number of soundings erroneously spaced	.....	33
Number of signals erroneously plotted or transferred	.....	2
Topographic details	Time	32
Junctions	Time	8
Verification of soundings from graphic record	Time	32

Verification by *Saverio Nichols* ..... Total time *215 hrs* ..... Date *2 Jan 47* .....

Review by *R.H. Carstens* ..... Time *31* ..... Date *144131847* .....

GEOGRAPHIC NAMES  
 Survey No. **H6966**

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
<u>Maryland</u>										USGB	1
<u>Patuxent River</u>											2
<u>Mill Creek</u>											3
<u>Back Creek</u>											4
<u>St. John Creek</u>											5
<u>Olivet</u>											6
<u>Old House Cove</u>											7
<u>Brooks Cove</u>											8
<u>Leason Cove</u>											9
<u>Spring Cove</u>											10
<u>Ship Point</u>											11
<u>Solomons Island</u>										USGB	12
<u>Ma Leg Island</u>											13
											14
											15
											16
											17
<u>Solomons</u>										USGB	18
											19
											20
											21
											22
											23
											24
											25
											26
											27

Names underlined in red approved  
 by L. Heck on 11/10/47

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6966

FIELD NO. 104

Maryland, Patuxent River, Mill Creek and Tributaries  
Surveyed in Feb. - April 1944                      Scale 1:5,000  
Project No. CS-307

Soundings:

Control:

Sounding Pole  
Leadline  
808 Fathometer

Sextant fixes on shore signals

Chief of Party - T. B. Reed  
Surveyed by - G. E. Russell, Jr.  
Protracted by - G. B. Woolley  
Verified and inked by - H. Nichols  
Reviewed by - R. H. Carstens, January 14, 1947  
Inspected by - H. W. Murray

1. Shoreline and Signals

- A. As discussed in correspondence to field parties and the office memorandum attached to the Descriptive Report, the positions of signals in St. John Creek and Mill Creek on graphic control sheets T-6927 A and B (1943-44) are not in agreement with the positions on air photographic surveys T-8542 and T-8543 of 1942-43. The Section of Photogrammetry has adjusted the signals from the graphic control sheets to the shoreline from the air photographic surveys and has shown the adjusted positions on a tracing accompanying T-8542. This tracing is the source of the signals on this survey in St. John Creek and in Mill Creek south of lat. 38° 19.9'.

The signals in Back Creek are from graphic control survey T-6927 A.

The signals in Mill Creek east of long.  $76^{\circ} 26.9'$  are from T-6927 A and B and were so adjusted in the Hydrographic Surveys Section that the graphic control positions of signals ARM and ZONE are in agreement with the radial plot positions shown on T-8542.

- B. The shoreline originates with T-8542 and T-8543 except in Mill Creek where the shoreline from T-8542 has been adjusted to the revised positions of signals from T-6927 A and B, discussed in the preceding paragraph.

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated.

The bottom is smooth and in general slopes gradually from the shore to the channel.

4. Junctions with Contemporary Surveys

A satisfactory junction was made with H-6876 (1944) on the south.

5. Comparison with Prior Surveys

A. H-210 (1848) 1:20,000

The sparse hydrography on this prior survey is in general agreement with present depths.

The present survey supersedes this prior survey within the common area.

B. H-2931 (1907-08) 1:20,000

This sparsely developed survey covers the entire area of the present survey and is of reconnaissance value only. Sounding lines were run between shore features and are not controlled by sextant fixes.

Agreement with present depths is generally within 2 ft. except where prior inshore shoal depths fall in present deeper depths because of inaccuracies in plotting the smaller scale survey. An example, is the  $6\frac{1}{2}$  (uncharted) in lat.  $38^{\circ} 19.99'$ , long.  $76^{\circ} 27.64'$  which falls in present depths of about 10 ft. The  $6\frac{1}{2}$  is disproved by the present hydrography and should be disregarded.

The present survey satisfactorily delineates all the essential hydrographic features and is adequate to supersede this prior survey within the common area.

6. Comparison with Chart 3331 (Latest print date 2/2/46)  
Chart 553 (Latest print date 5/25/46)

A. Hydrography

The hydrography on these charts originates principally with the present survey before verification and review. Specific comments are noted below:

a. Chart 3331

About eight small piers and the pier under construction in lat.  $38^{\circ} 19.76'$ , long.  $76^{\circ} 27.15'$  are not charted.

The high water feature charted in lat.  $38^{\circ} 19.95'$ , long.  $76^{\circ} 26.5'$  is a wreck. The charted delineation is superseded by the present survey delineation.

The wreck in lat.  $38^{\circ} 20.39'$ , long.  $76^{\circ} 27.83'$  is not charted.

b. Chart 553

The 2-ft. sounding in lat.  $38^{\circ} 19.86'$ , long.  $76^{\circ} 26.68'$  and the  $12\frac{1}{2}$  in lat.  $38^{\circ} 19.54'$ , long.  $76^{\circ} 27.1'$ , both charted from H-2931, are slightly displaced on the chart. These soundings are superseded by present survey depths.

The following wrecks awash are not charted:

<u>Locality</u>	<u>Latitude</u>	<u>Longitude</u>
Back Creek	$38^{\circ} 20.39'$	$76^{\circ} 27.83'$
Back Creek	$38^{\circ} 20.5'$	$76^{\circ} 27.44'$
Mill Creek	$38^{\circ} 20.93'$	$76^{\circ} 25.72'$
Mill Creek	$38^{\circ} 20.66'$	$76^{\circ} 25.66'$
Mill Creek	$38^{\circ} 20.57'$	$76^{\circ} 25.81'$
Mill Creek	$38^{\circ} 19.96'$	$76^{\circ} 26.51'$
Mill Creek	$38^{\circ} 19.78'$	$76^{\circ} 26.59'$

The charting of these wrecks on this chart may be unimportant because of their nearness to shore.

B. Aids to Navigation

The present survey positions of aids to navigation are in satisfactory agreement with the charted positions and adequately mark the features intended except that no survey position is shown for beacon 7 charted in lat.  $38^{\circ} 19.79'$ , long.  $76^{\circ} 27.46'$  from chart letter 287 (1943).

The Descriptive Report states that some beacons and lights were destroyed by landing craft and were rebuilt only after a considerable lapse of time.

7. Condition of Survey

The smooth plotting was accurately accomplished.

The sounding records and Descriptive Report are complete and comprehensive.

As discussed in Par. 1, above, the positions of some signals and shoreline have been adjusted from information shown on the air photographic surveys and graphic control surveys of the area. Differences between the adjusted shoreline, as now shown on this survey, and the correct shoreline are of little importance after reduction for charting.

8. Compliance with the Project Instructions

The present survey adequately complies with the Instructions for the project.

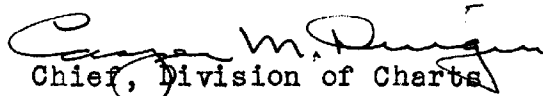
9. Additional Field Work Recommended

This is a basic survey and no additional field work is required.

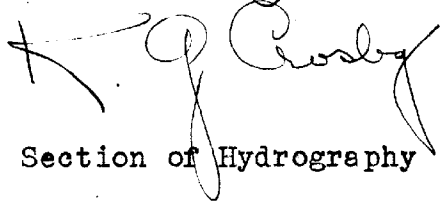
Examined and approved:



Chief, Nautical Chart Branch



Chief, Division of Charts



Chief, Section of Hydrography



Chief, Division of Coastal Surveys

DESCRIPTIVE REPORT  
TO ACCOMPANY  
GRAPHIC CONTROL SHEETS NUMBER 6927 A & B  
PATUXENT RIVER, MD. PROJECT CS-307  
Thomas B. Reed Chief of Party

INSTRUCTIONS:

These surveys were executed in accordance with instructions from the Director, dated September 11, 1943.

LOCALITY:

These sheets furnished the control for the hydrography in Back, Mill, and St. John Creeks.

GENERAL:

These sheets are graphic control sheets. In addition to the location of signals for hydrography, approximately 2 miles of shore line was rodded in as well as detail of docks, wrecks, etc. This topography was accomplished in the vicinity of each set up. The detail will furnish additional control for the detailing from photographs of the topography in this area. The shore line was furnished this party on a scale of 1:5,000. It was traced on the sheets. From inspection there will be a shift to the south and west of all detail in this area to bring it into agreement with the topography on the graphic control sheets. All proper names shown on this sheet were taken from the War Department's Quadrangle Maps of this area. Landmarks for charts, Coast Pilot information, and reports on both floating and permanent aids to navigation are the subjects of separate reports by the chief of party.

CONTROL:

Twelve third order triangulation stations were used to furnish control. Standard topographic methods were used. All signals and off shore detail were cut in. The plane table positions were determined by three point fixes, resection methods, and graphic triangulation. There were no traverses. Descriptions for six recoverable H & T Stations, selected by War Mapping Party No. 2, in this area are furnished on form no. 524.

SPECIAL RANGE:

Hydrographic signals Front and Rear are white wooden targets used as a front range and rear range respectively. These ranges are in Latitude  $38^{\circ} - 19'45''$ , Longitude  $76^{\circ} - 27'5''$ . This range is used by amphibious craft entering Back Creek north of Ma Leg Island. The range is not very sensitive but is sufficient for

its use by the various amphibious landing craft that dock at the Naval Amphibious Training Base. The entering bearing of the range is 292° T.

JUNCTIONS:

Satisfactory junctions were obtained between the two sheets covered by this report as well as with graphic control sheet "B" (field number) at the entrance to Back Creek. Hydrographic Signal Sim 1943 is not the same signal as the Sim shown on sheet "B" (field letter).

MAGNETIC MERIDIAN:

The magnetic variation as determined at Triangulation Station Sandy 1943 with the declinateire was found to be 8° 10' W. This compares with a charted value of 7° 15' W. The index correction for this declinateire is not known.

MISCELLANEOUS:

The following is a list of signals outside the high water line:


NAME	DESCRIPTION	NAME	
Ann	Light on pier	Inn	Gulf sign on pier
Bea	Back Creek Light No. 5	Job	Tallest pile in cluster
Cock	Flagpole on pier	Keg	ditte
Fool	Piling	Net	White wash on wreck
Gem	Esso sign on pier	Nit	Piling
Hive	Texaco sign on pier	On	Back Creek Light No. 2
Hog	Solomons Island Wharf Light - 1943	Saw	Piling

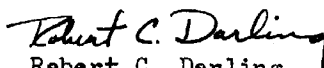
Wrecks in the following localities were located on these sheets (stem and stern of each were cut in):

Latitude	38° 20'.51	Latitude	38° 20'.58
Longitude	76° 27'.88	Longitude	76° 25'.81
Latitude	38° 20'.40	Latitude	38° 20'.67
Longitude	76° 27'.45	Longitude	76° 25'.65
Latitude	38° 20'.46		
Longitude	76° 25'.80		

Respectfully submitted,

Approved & forwarded:

  
Thomas B. Reed  
Lieut. Comdr., USC&GS  
Chief of Party

  
Robert C. Darling  
Ensign, USC&GS



200  
712

TIDE NOTE FOR HYDROGRAPHIC SHEET

November 6, 1944.

~~Division of Hydrography and Topography~~

✓ Division of Charts: Attention: H. R. EDMONSTON

Plane of reference approved in  
5 volumes of sounding records for

HYDROGRAPHIC SHEET 6966

Locality Patuxent River: Mill, Back and St. Johns Creeks, Maryland.

Chief of Party: T. B. Reed in 1944  
Plane of reference is mean low water reading  
7.0 ft. on tide staff at Solomons  
10.9 ft. below B. M. 4

Height of mean high water above plane of reference is 1.2 feet.

Condition of records satisfactory except as noted below:

*C. H. Green*

Chief, Division of Tides and Currents.



