

7155

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. **CO-1546** Office No. **H - 7155**

LOCALITY

State **MARYLAND**

General locality **Chesapeake Bay**

Locality **Hooper's Islands**

1948

CHIEF OF PARTY

Ronald R. Moore

LIBRARY & ARCHIVES

DATE

7155

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. H7155

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. H - 7155

Field No. CO-1546

State MARYLAND ✓

General locality Chesapeake Bay ✓

Locality Hoopers Islands ✓

Scale 1-10,000 Date of survey June - October 1946 ✓

Instructions dated 11 August 1945

Vessel COWIE, LAUNCHES 82 & 100, SKIFF

Chief of party Ronald R. Moore

Surveyed by Ronald R. Moore, Roger C. Rowse

Soundings taken by fathometer, graphic recorder, hand-lead, wire Pole

Protracted by M. F. Byrd

Soundings penciled by M. F. Byrd

Soundings in fathoms feet at MLW ~~MLLW~~

REMARKS: This sheet was processed in the Hydrographic Section of the S.E.
District, Norfolk, Va.

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET H - 7155

FIELD NUMBER CO-1546

USC&GS SHIP COWIE

SCALE 1:10000

Ronald R. Moore, Comdg.

SURVEY BY

Ronald R. Moore

Roger C. Rowse

A. This survey was done under instructions for Project CS-287, dated 11 August 1945.

B. This is an inshore survey in Chesapeake Bay from latitude $38^{\circ}13'N$, where it joins Survey H-6775, done in 1942 extending northward to a line 215° from DOG (1929) 3.3 miles, where it joins Survey H-7154 (Field No. CO 1446), which was surveyed concurrently with the present one, and extending offshore to a junction with Survey H-7094 of this party on the COWIE and done in 1945-1946. It extends eastward to a junction at longitude $76^{\circ}08'$ with Survey H-7156 (Field No. CO-1646), which was also surveyed concurrently. Field work commenced on 28 June and was finished on 17 October.

C. Various units of the party worked on this survey. The COWIE surveyed the area between the 12 foot and 30 foot curves; Launches Nos. 82 and 100 surveyed the area inshore from the 12 foot curve to the 6 foot curve; and the 25 foot skiff surveyed the shoal areas inside the 6 foot curve. The first three were equipped with portable recording 808 Type Fathometers. For work with the skiff a 16 foot sounding pole was used.

D. The tide station used for the reduction of soundings was the standard automatic tide gage maintained by the Maryland Biological Laboratory at their dock at Solomon's Island, Maryland. No time factor was introduced.

E. The smooth sheet was plotted at the Norfolk Processing Office.

F. Control is based on triangulation accomplished by various chiefs of party from 1910 to 1929.

Topographic stations are located on air photo topographic sheets T-8118 SW, T-8118 SE, and T-8136 NE. These are supplemented by hydrographic stations located by sextant fixes at the stations, with the exception of signals BUSHY, TREE and NED, which were located by sextant cuts from other stations and from offshore positions of

the COWIE and launches. In this area there are numerous duck blinds offshore that were located for use as signals.

G. The shoreline is from the air photo topographic sheets listed in F above.

A change in the shoreline was noted along the southwest shore of Hooper Island, where the shoreline had been eroded approximately 50 meters, for about $\frac{1}{2}$ mile between latitudes $38^{\circ}15'.2''N$ and $38^{\circ}14'.56''N$. This change is shown on the ~~boat~~^{523rd} sheet.

The low water line could not be defined by the hydrographic party because of the gradual slope of the bottom, the large areas of flats, and trees and stumps in the area where erosion had taken place. Lines adjacent to the shoreline were run for most of the sheet.

H. The soundings in depths of 6 feet and over were obtained with an 808 type recording fathometer. Bar checks were taken at the beginning and end of each days work. The bar check lines were accurately marked steel wire rope and standard leadline. Bar check curves for each day were plotted and a mean curve for that day used for the correction of soundings.

In depths under 6 feet a sounding pole 16 feet long was used. This pole was also used to check the fathometer soundings at numerous times as shown in the records in depths at which soundings with the pole could be made.

I. All positions for the location of the boat depend on three-point fixes taken on stations located as outlined in F above.

J. The survey is complete and adequate to supercede prior surveys. No holidays or excessive differences exist.

Sounding lines in depths 6 feet or over are spaced somewhat less than 100 meters apart with intermediate lines where necessary for development. In depths of less than 6 feet the spacing is somewhat less than 200 meters.

The junctions with Sheets H-6775⁽¹⁹⁴²⁾, H-7094⁽¹⁹⁴⁵⁻⁴⁶⁾, H-7154⁽¹⁹⁴⁵⁾ (CO-1446) and H-7156 (CO-1646) are satisfactory in so far as predicted tides were used for the reduction of soundings plotted on the boat sheet.

K. The percentage of crosslines is 11.8%. The crossings are in good agreement considering the use of predicted tides for the plotting of soundings.

L. Comparison with Survey H-3379, scale 1:40000, surveyed in 1912.

The present survey is in good agreement as far as the offshore work is concerned. The 6 foot curve appears to be slightly further

offshore than in the older survey. (See Review)

M. Comparison with Chart 1224, Print date 6-23-45. The present survey is in close agreement with the chart considering that predicted tides were used for the reduction of soundings. The 6 foot and 12 foot curves are difficult to define, since the bottom is flat and lumpy, and their delineation will depend on the use of proper tidal reductions. The tongue of deep water (seven and eight feet) shown $\frac{1}{2}$ mile west of Richland Point is now blocked by depths of five and six feet at its south end.

N. No new dangers to navigation were found. No indication of the wreck shown in Lat. $38^{\circ}13.7'$, Long. $76^{\circ}08.3'$ was found. Upon inquiry among local fishermen it was ascertained that this wreck had broken up and disappeared.

O. This area is used locally by fishermen in boats of suitable draft, basing at Hoopersville, Fishing Creek, and other places in the Honga River area. In going to and from the Honga River many of these fishermen pass through the Narrows Ferry drawbridge (name from Atlantic Coast Pilot, Section C, page 279), where the limiting depth is 3 feet. The fixed aids to navigation marking this channel are Middle Island Bridge Lights 1 and 3.

P. The fixed aids to navigation in the area covered by this sheet are:

HOOPER ISLAND LIGHT
MIDDLE ISLAND BRIDGE LIGHT NO. 1
MIDDLE ISLAND BRIDGE LIGHT NO. 3
HONGA RIVER LIGHT

Q. The floating aids to navigation are:

RICHLAND POINT LIGHTED BELL BUOY 1, Lat. $38^{\circ}12.8'N$ 63F
Long. $76^{\circ}11.0'W$ 18.6 feet July 29, 1946 COWIE
HOOPER ISLAND BOMBING TARGET, (Removed Sept. 1946)
Lat. $38^{\circ}14.5'N$ Long. $76^{\circ}13.8'W$ 15 feet

Ronald R. Murray

TIDAL NOTE

The standard automatic tide gage maintained by the Maryland Biological Laboratory on their dock at Solomon's Island, Maryland, was used for the reduction of soundings without any time correction.

Mean low water corresponds to a reading of 3.0 feet on the tide staff.

H-7155

LIST OF SIGNALS

TRIANGULATION

Dog, 1929
Hoopersville M.E. Ch. Spire, 1910
Hooper I. Light, 1902, 1929

TOPOGRAPHIC

- (a) Tender's Cabin
- (a) Middle I. Bridge Light No. 1
- (b) Lot
- (c) Nor (Honga R. Light, 1942)

HYDROGRAPHIC

Bushy (H-7156)	Ned
Car	One
* Del	Pole
Den (Boat Sheet)	Ret
Dot	Rob (Boat Sheet)
Fish	Sig
Five (Boat Sheet)	Six
For	Slim (H-7156)
Gan	Slip
** Get	Tree
** Get 2	Tri
Hat (H-7157)	Two
Hid (H-7156)	Zag
Ice (H-7156)	<i>Chim</i>
Jim	
Lap (H-7156)	
Log	
Nag	
Nel	

AIR PHOTO COMPILATION (green)

- ~~(a) Chim~~

* Del is Middle Island Bridge Light No. 3 Est.
Aug. 1946.

** Get and Get 2 are two locations, determined at different times, of Hooper Island Bombing Target, a floating target anchored with too much scope for satisfactory use as a hydrographic station (See Q. above)

Note

- (a) T-8118
- (b) T-8136
- (c) T-8135

STATISTICS FOR SHEET H-
STATUTE BAR

(CC-1546)

VOL.NO.	DATE	NO.POS.	MILES	CHECKS	H.L. or POLE SDGS.	DAY LETTER	BOAT
1	6-28-46	173	44.8	2	1	A	COWIE
1	7-8-46	135	30.1	2	1	B	COWIE
2	7-12-46	146	35.6	2	--	C	COWIE
2	7-19-46	139	31.4	2	--	D	COWIE
2&3	7-26-46	140	31.0	2	--	E	COWIE
3	7-29-46	63	18.6	2	1	F	COWIE
4	7-30-46	129	25.4	4	1	a	Lch. 82
4&5	7-31-46	214	40.6	2	16	b	Lch. 82
5	8-1-46	78	14.4	2	4	c	Lch. 82
5	8-8-46	135	22.6	2	29	d	Lch. 82
6	8-15-46	197	30.6	2	30	a	Lch. 100
7	8-27-46	139	21.2	--	810	a	Skiff
8&9	8-28-46	15	1.8	1	3	e	Lch. 82
7	9-4-46	111	18.3	--	617	b	Skiff
8	9-6-46	125	25.0	2	21	f	Lch. 82
7&9	9-10-46	166	26.3	--	965	c	Skiff
8	9-13-46	67	11.5	2	7	g	Lch. 82
8&10	9-17-46	125	22.1	2	102	h	Lch. 82
9	9-20-46	79	10.6	--	413	d	Skiff
3	10-2-46	34	7.1	1	--	G	COWIE
9	10-8-46	50	5.8	--	281	e	Skiff
9	10-17-46	28	3.2	--	147	f	Skiff
Totals		2498	472.0	32	3449		
		Area	25 sq. stat. miles				

A D D E N D U M

to accompany

HYDROGRAPHIC SURVEY H-7155 (Field No. Co. 1546)

Control

Attention is directed to the fact that this survey contains a great many hydrographic signals whose locations were determined from a relatively few triangulation and topographic stations and a great many previously located hydrographic stations.

CHIM (green): ⁽¹⁹⁴⁵⁾ The ⁽¹⁹⁴⁶⁾ location of this signal does not coincide on boat sheets H-7155, H-7154 and H-7157. Its location as shown on boat sheet H-7155 was determined by sextant cuts which, according to information obtained from the Officer-in-Charge of this survey, were not recorded by the field party, whereas its locations on boat sheet H-7154 and H-7157, which are in agreement, were taken from topographic sheet T-8118. ⁽¹⁹⁴²⁾ The location of this signal on the above-mentioned smooth sheets was taken from boat sheet H-7155, as this location when used to determine the location of other signals appeared to give the best results.

MID (Topo) T-8118: The location of this signal on smooth sheets Nos. H-7154, H-7155 and H-7157 does not agree with that shown on topographic sheet No. 8118. The position as shown on the smooth sheet was plotted from the geographic position contained in the Director's letter dated 24 May, 1946, reference 70-1mh.

The location of this signal as shown on the smooth sheets gives the best positions for hydrographic signals FISH and HAT which are dependent on MID for their locations.

ROB (Hydro): This signal was transferred from the boat sheet, since no data for its location could be found by this office or the Officer-in-Charge of the Ship COWIE among the field records transferred to this office.

DEN (Hydro): The location of this signal was taken from the boat sheet. The fix (See "Cut" volume, page #3) used in determining the location of this signal was weak.

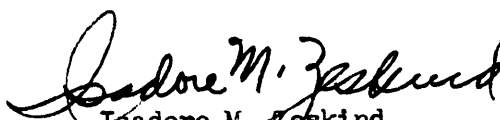
Discrepancies

F (blue) day, - begins at latitude 38° 16. 64' and longitude 76° 15. 76' Soundings on this day appear to be one foot too shoal. (Adjusted)

H-7155


Channel at Hooper Island Bridge: The crossing discrepancies in this channel were discussed with the Chief of Party, Lt. Comdr. R.R. Moore, who stated that these discrepancies were due to the narrowness of the channel and the inexperience of the leadsman. The Chief of Party suggested that the sounding lines running parallel to the channel be plotted and those crossing the channel be disregarded. It is recommended that the pole soundings in the channel which are in conflict with the fathogram soundings be rejected.

Respectfully submitted,


Isadore M. Zeskind
Cartographic Engineer

Approved & Forwarded

March 26, 1947
Norfolk, Virginia


George L. Anderson
Supervisor
Southeastern District

BAR CHECKS

SHEET CO-1546

35 H-7 NJ'

+0.5 0 5 10 15 20 25 30

A DAY 28 June 1946

0.0 * * * * * No correction
Entered in sdg. record

+0.5 B DAY 8 July 1946

0.0 * * * * * No correction
Entered in sdg. record

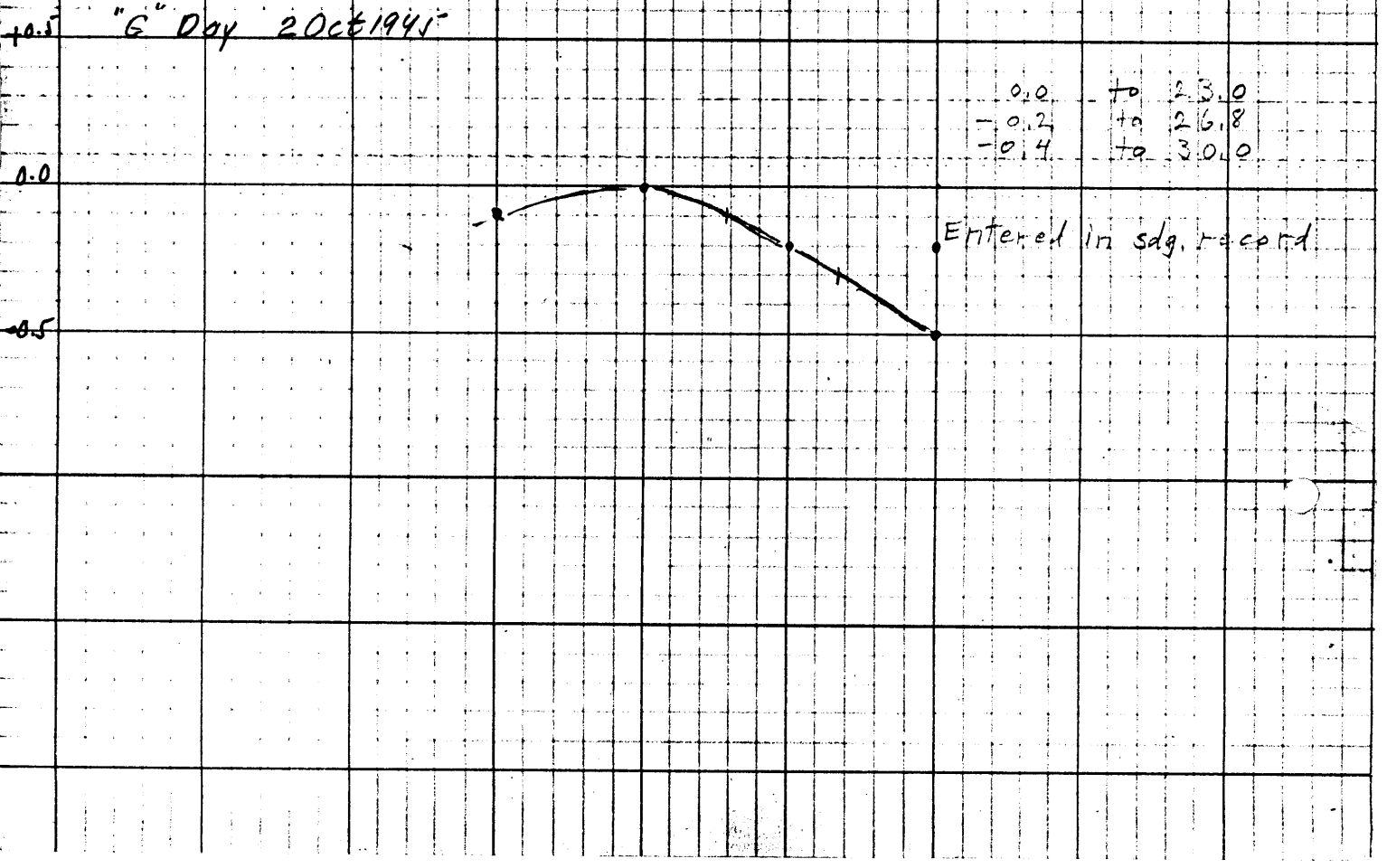
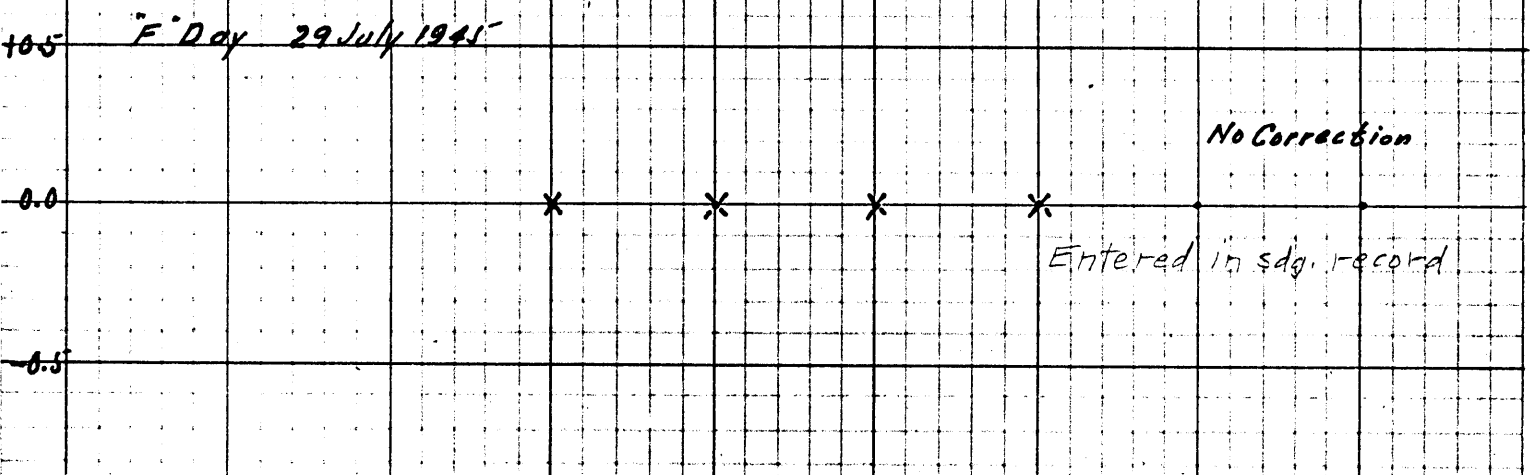
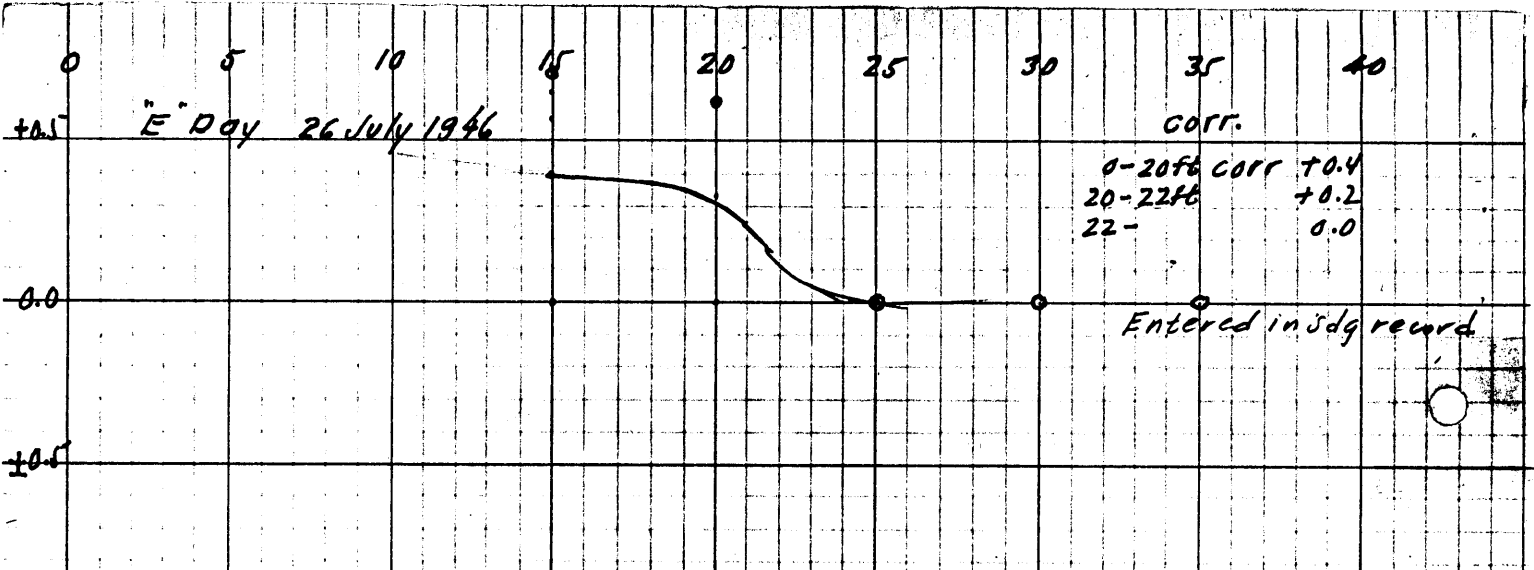
+0.5 C DAY 12 July 1946

0.0 * * * * * No correction
Entered in sdg. record

+0.5 D Day 19 July 1946

0.0 * * * * * No Correction
Entered in sdg. record

-0.5

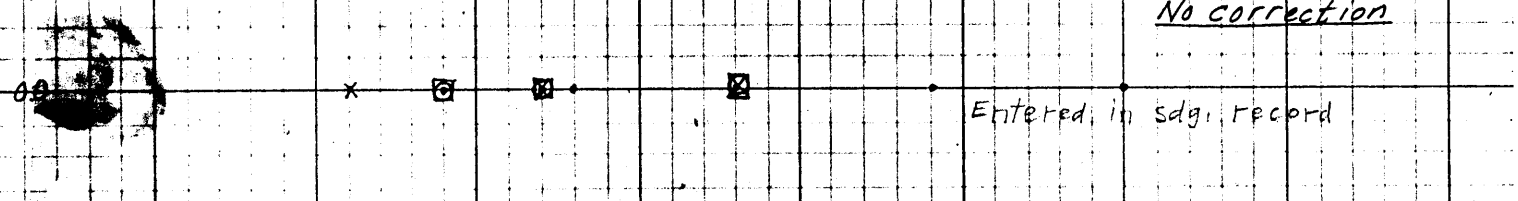


0 5 10 15 20 25 30 35 40

H-7155

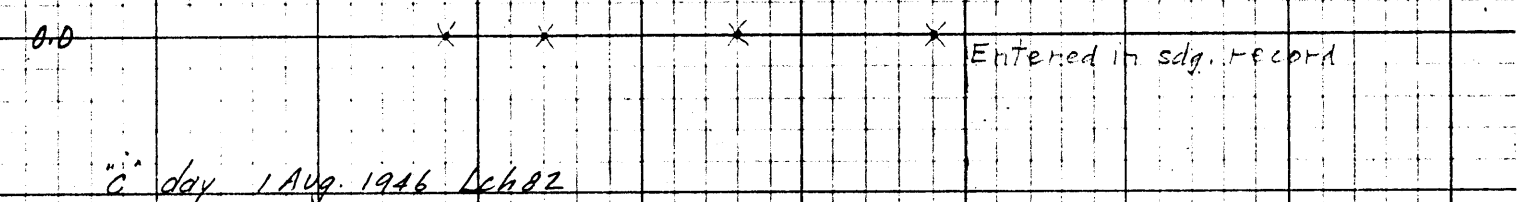
+0.5 "a" Day 30 July 1946 Lch 82.

No correction



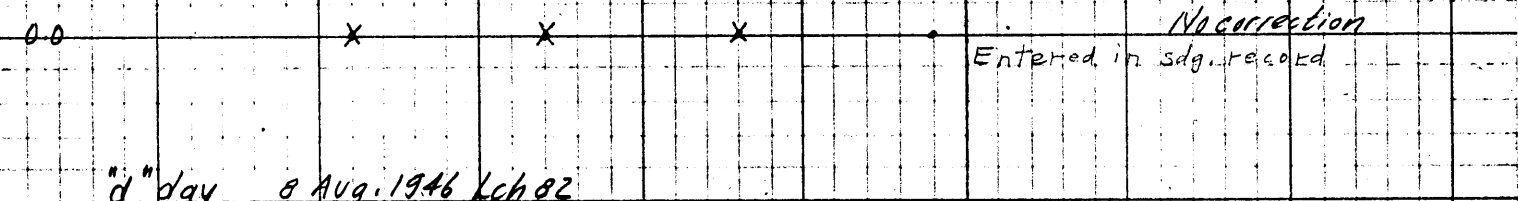
"b" day 31 July 1946 Lch 82.

No correction



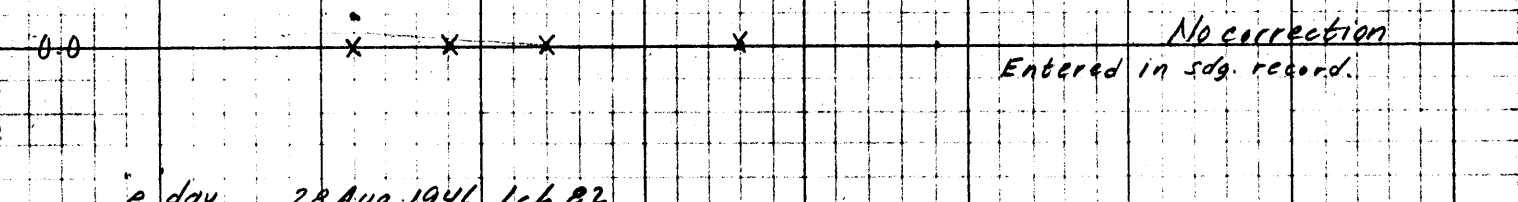
"c" day 1 Aug. 1946 Lch 82.

No correction



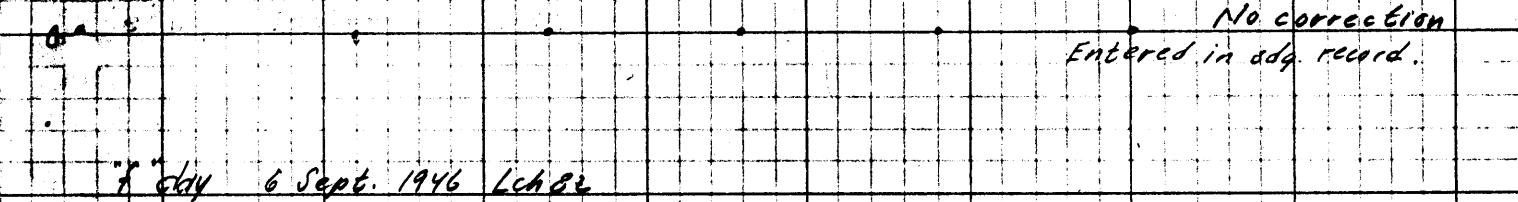
"d" day 8 Aug. 1946 Lch 82.

No correction



"e" day 28 Aug. 1946 Lch 82.

No correction

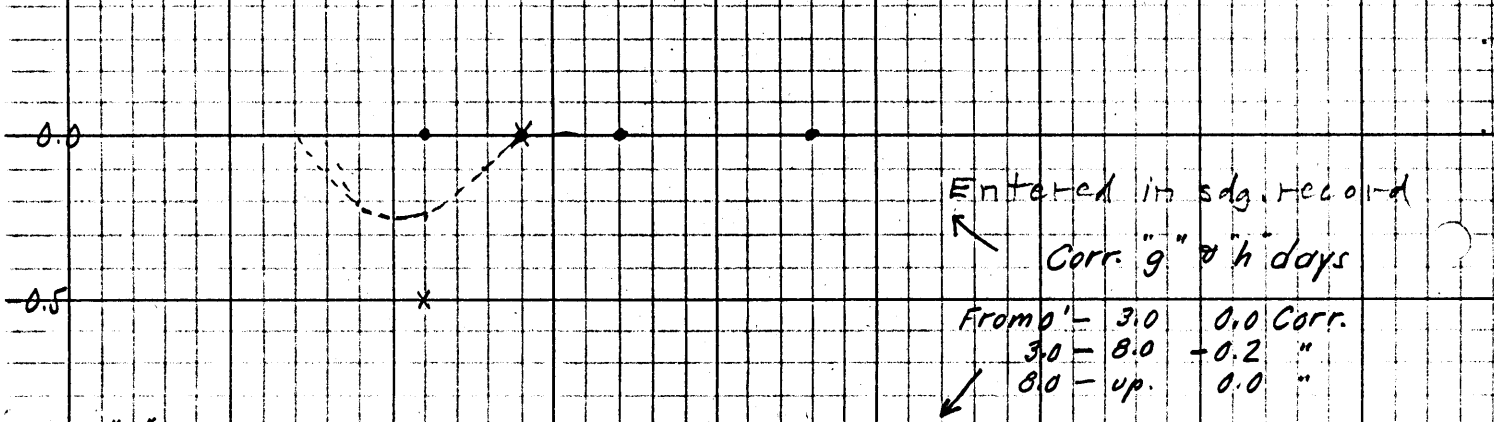


"f" day 6 Sept. 1946 Lch 82.

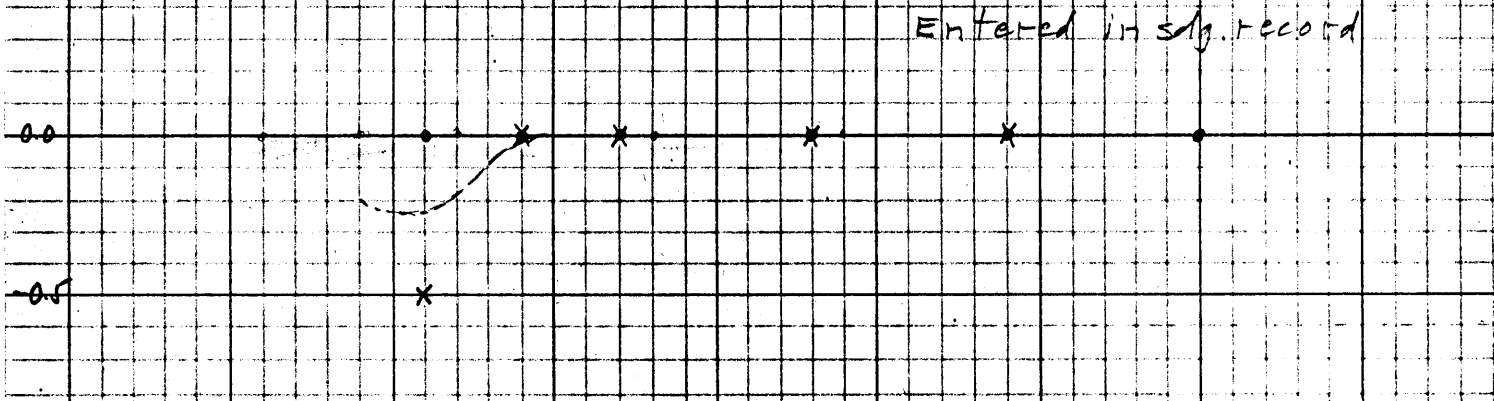
No correction



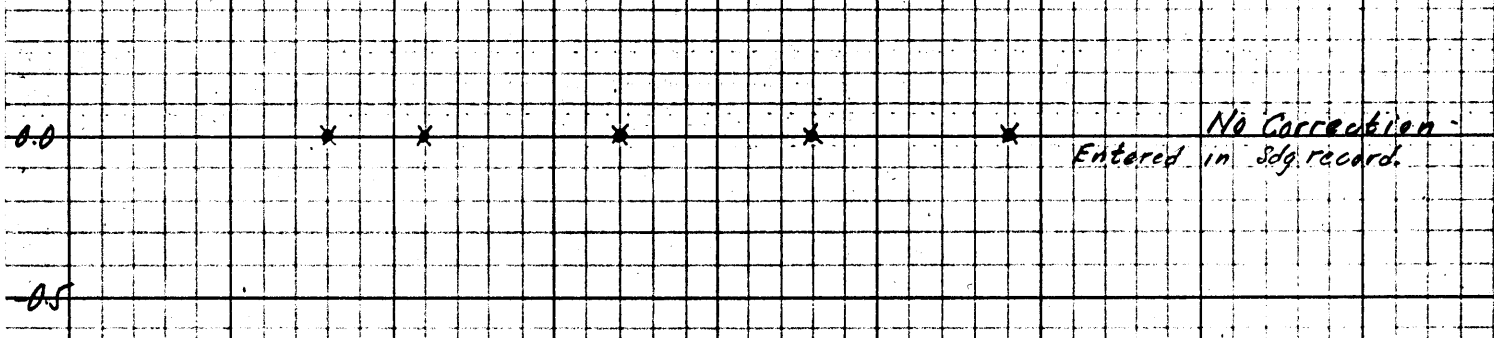
0 5 10 15 20 25 30 35
 +0.5 "g" day 13 Sept 1946 Lch 82



+0.5 "h" day 17 Sept 1946 Lch 82



+0.5 "d" day 15 Aug 1946 Lch 100



Horn

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography:~~

30 April 1947

Division of Charts: H. W. MURRAY

Plane of reference approved in
11 volumes of sounding records for

HYDROGRAPHIC SHEET

7155

Locality - Hooper Island, Chesapeake Bay, Maryland.

Chief of Party: R. R. Moore in 1946
Plane of reference is mean low water, reading
3.0 ft. on tide staff at Solomons Island
10.8 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:

E. C. McKay
Section
Chief, ~~Division~~ of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. **H7155**

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
<u>Chesapeake Bay</u>		(for title)								US&B	1
<u>Hooper Islands</u> (title)		(recent U.S. B. by Jackson)								"	2
<u>Middle Hooper Island</u>											3
<u>Pons Pt</u>											4
<u>Ferry Pt</u>											5
<u>Bluff Pt</u>											6
<u>Tom Pt</u>											7
<u>Richard Pt</u>											8
<u>Swan Island</u>											9
<u>Lower Hooper I.</u>											10
<u>Hooper Strait</u>										US&B	11
<u>Thorofare Cove</u>											12
											13
											14
											15
											16
<u>Solomons Island</u>		(location of tide staff)								US&B	17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

Names underlined in red approved
by L. Heck on 7/24/47

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. **..87155**

Records accompanying survey:

Boat sheets **..1...**; sounding vols. **..11.....**; wire drag vols. **.....**;
 bomb vols. **.....**; graphic recorder rolls **..16...**;
 special reports, etc. **....2. Sheets Bar Checks.....**

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

Number of positions on sheet		2498...
Number of positions checked		..127...
Number of positions revised		...6...
Number of soundings revised (refers to depth only)		...6...
Number of soundings erroneously spaced		..10...
Number of signals erroneously plotted or transferred		...2... <small>No CHANGE IN HYDRO R. K. W.</small>
Topographic details	Time	...2 hrs
Junctions	Time	...16 hrs
Verification of soundings from graphic record	Time	...4 hrs

Verification by **..R. K. DE LAWDER.....** Total time **174 hrs.** Date **6-23-47..**

Reviewed by **..J. F. Jordan.....** Time **27....** Date **7-12-47..**

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7155

FIELD NO. CO-1546

Maryland, Chesapeake Bay, Hooper Island
Surveyed in June to October, 1946 Scale 1:10,000
Project No. CS-287

Soundings:

808 Fathometer
Pole

Control:

Sextant fixes on shore signals

Chief of Party - R. R. Moore
Surveyed by - R. R. Moore and R. C. Rowse
Protracted by - M. E. Byrd
Soundings plotted by - M. E. Byrd
Verified and inked by - R. K. De Lawder
Reviewed by - G. F. Jordan, July 22, 1947
Inspected by - H. W. Murray

1. Control and Topographic Detail

The control and shoreline originate with planimetric maps T-8118, T-8135 and T-8136.

Hydrographic signals located by sextant angles on the present and adjoining surveys furnished most of the signal control, and presented difficulties which are discussed in the addendum to the Descriptive Report.

The dashed-red shoreline in the vicinity of Lat. $38^{\circ}15.4'$, Long. $76^{\circ}10.8'$, is a correction by the hydrographic party. The planimetric shoreline determined in 1942 had apparently receded approximately 50 meters (see shoreline differences here since 1848, as noted in the following par. 5).

2. Bottom Configuration and Depth Curves

The bottom is generally smooth and is adequately delineated by the usual depth curves.

Of particular interest is a submerged natural channel which parallels the shoreline at an approximate distance of one-half mile. The channel is nearly obliterated by sedimentation and changing bottom, and is presently indicated by four depressions enclosed by 6-ft. curves. The 7-ft. depths in these areas are bordered inshore by smooth sloping bottom, and offshore by zero to 5-ft. depths. The zero to 5-ft. depths indicate the possible prior existence of land between the channel and the deeper part of the bay.

3. Sounding Line Crossings

The agreement of soundings at crosslines is very good.

4. Junctions with Adjoining Surveys

The junctions on the east with H-7156 (1946), on the south and southwest with H-6775 (1942), and on the west with H-7094 (1945-46) are very good.

The junction on the north will be considered in the review of H-7154 (1946).

5. Comparison with Prior Surveys

H-209 (1848) Scale 1:20,000; H-2429 (1899) Scale 1:40,000;
H-3379 (1912) Scale 1:40,000

The prior surveys H-209 and H-3379 cover the entire area of the present survey, whereas reconnaissance survey H-2429 shows only two lines of soundings in the common area.

The prior surveys are in good agreement with the present survey except in changeable bottom areas. The agreement is found generally offshore from the 12-ft. curve, and in the northern half of the survey offshore from the 6-ft. curve.

The greatest differences in depths occur in the south portion of the survey where the 12-ft. curve is now 700 meters farther offshore.

A prominent recession of shoreline has occurred at Richland Point in Lat. $38^{\circ}14.8'$, Long. $76^{\circ}10.4'$. The end of this point on H-209 (1848) was 600 meters southward of the above position and is now superseded by 4- and 5-ft. depths. The shoreline for one and one-half miles northward of the point has receded about 200 meters. Of particular note is the absence of any other appreciable shoreline changes in the area of the survey.

Previous mention (par. 2) has been made of the submerged natural channel paralleling the shoreline. This channel formerly (H-209) extended into deep water in Lat. $38^{\circ}14.4'$, Long. $76^{\circ}11.0'$, where prior 11- and 12-ft. depths are now superseded by present 4- and 5-ft. depths. Prior 8- and 9-ft. depths along the axis of the channel are now superseded by 4- to 7-ft. depths.

The bottom area inshore from the present continuous 6-ft. curve has changed, as for example:

<u>Prior Depth</u>	<u>Present Depth</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Chart</u>
* $\frac{1}{2}$ ft.	4 ft.	$38^{\circ}16.90'$	$76^{\circ}13.40'$	1224 ✓ LAM
8 ft.	2 ft.	$38^{\circ}16.70'$	$76^{\circ}12.50'$	
*4 ft.	6 ft.	$38^{\circ}15.58'$	$76^{\circ}12.20'$	557
*4 ft.	7 ft.	$38^{\circ}15.29'$	$76^{\circ}11.72'$	557
*4 ft.	7 ft.	$38^{\circ}15.13'$	$76^{\circ}11.52'$	557

The above soundings marked with an asterisk (*) are presently charted and, together with all other prior soundings, are superseded in the area common with the present survey.

6. Comparison with Chart 553 (Print Date of March 17, 1947)
 Chart 557 (Print Date of August 10, 1946)
 Chart 1224 (Print Date of February 17, 1947)

a. Hydrography

The hydrography presently charted is from the aforementioned prior surveys and is superseded by the present survey.

The wreck charted (Chart 1224) at Lat. $38^{\circ}13.65'$, Long. $76^{\circ}08.3'$ from Chart Letter 483 (1939) is now nonexistent. According to the Descriptive Report, local inquiry ascertained that the wooden-hull scow had broken up and disappeared. ✓ LAM

b. Aids to Navigation

The aids to navigation on the present survey and on the charts are, with one exception, in substantial agreement and adequately mark the features intended. The light on the present survey in Lat. $38^{\circ}18.01'$, Long. $76^{\circ}12.09'$, is 80 meters westward of the charted position. According to H. O. Notice to Mariners 31 (1946), a new light was built subsequent to the destruction of the old one (H. O. Notice to Mariners 5, 1946). The position of the new light is therefore shown on the present survey. ✓
Jan

7. Condition of the Survey

- a. The Descriptive Report is comprehensive. However, no report on clearances of the Hooper Island bridge was included. Clearances shown on the smooth sheet are from T-8118, which were in turn taken from the "List of Bridges over Navigable Waters". A report to the Coast Pilot Section by the war mapping party in 1942 is at variance with the above publication. 38°17.9
76°12.4
- b. The sounding records are adequate except that incomplete records made necessary the transfer of the positions of some hydrographic signals from the boat sheet during the smooth plotting (see addendum to the Descriptive Report).
- c. The smooth plotting was well executed.

8. Compliance with Project Instructions

The survey adequately complies with the project instructions.

The hydrographer's attention is directed to the Hydrographic Manual, page 103, which states that "In general, hydrographic stations shall not be used as control from which to determine the positions of other hydrographic stations."

9. Additional Field Work

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

Examined and approved:



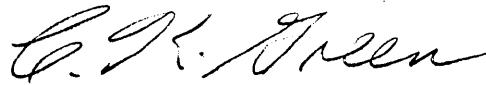
I. E. Rittenburg
Chief, Nautical Chart Branch



C. M. Durgin
Chief, Division of Charts



K. G. Crosby
Chief, Section of Hydrography



C. K. Green
Chief, Division of Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. 117155

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
6/24/47	557	S. G. McGinnis	Before After Verification and Review Examined - not applied at this time
1-23-48	77	G. H. C.	Before After Verification and Review partial
4 Feb 48	553	Steven Nichols	Before After Verification and Review [change] Examined - not applied at this time - no critical
			Before After Verification and Review
2/10/48	1224	S. G. McGinnis	Before After Verification and Review Partially applied
5/13/48	557	B. Rieseberg	Before After Verification and Review Fully applied
5-27-48	3331	M. S. Adams	Before After Verification and Review " "
10/25/49	3330	S. G. McGinnis	Before After Verification and Review
10/17/51	553	A. F. Stegman	Before After Verification and Review Fully applied to reconstruction drawing in part thru chrt 557
			Before After Verification and Review
11/12/52	555	S. G. McGinnis	after verification and review.
12/19/52	1224 Re. int.	S. G. C.	" " "
5/19/54	554	M. Alinden	" " " (in part thru chrt 653)
2/26/64	77	O. Sverdrup	After " " "

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.