

6952

6952

Form 504 U. S. COAST AND GEODETIC SURVEY DEPARTMENT OF COMMERCE DESCRIPTIVE REPORT	
Type of Survey	Hydrographic
Field No.	123
Office No.	H-6952
LOCALITY	
State	Maryland
General locality	Chesapeake Bay
Locality	James Point to Holland Point
<u>1943-44</u>	
CHIEF OF PARTY	
L. P. Raynor, I. E. Rittenburg, J. H. Brittain	
LIBRARY & ARCHIVES	
Dec. 9, 1944 April 1944	
DATE	

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. H-6952

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-6952

H6952

Field No. 123

State Maryland

General locality Chesapeake Bay

Locality James Pt. to Holland Pt.
~~Herring Bay to James Point~~

Scale 1:20,000 Date of survey Dec. 1943
~~January - April, 1944~~

Instructions dated April 17, 1940 and September 23, 1943

Vessel LYDONIA, MV GILBERT, Launch WAINWRIGHT

Chief of party L.P. Raynor, I. E. Rittenburg, J. H. Brittain

Surveyed by Ship's Officers

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

Protracted by A. G. Atwill

Soundings penciled by A. G. Atwill

Soundings in ~~fathoms~~ feet at MLW ~~MSL~~

REMARKS: This sheet was processed at the Norfolk Processing Office.

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SURVEY NO. H-6952 (Field 123)

Project: CS-250

INSTRUCTIONS DATED: April 17,
1940 and Sept. 23, 1943, and
Dec. 8, 1943 - 20 RS 1995 LY 4
(Confidential).

NOTE: This report was written from field notes submitted by the hydrographic parties, and was supplemented by additional information obtained at this office.

SURVEY LIMITS & DATES:

This survey covers an area on the west side of Chesapeake Bay from Herring Bay to James Point, Maryland. The work was begun in December, 1943 and completed in April, 1944.

VESSEL & EQUIPMENT:

The survey was accomplished by the Ship LYDONIA, the Launch WAINWRIGHT, the M.V. GILBERT and Launch No. 79 which operated from the Ship LYDONIA. The following fathometers were used during the survey:-

<u>Fathometer</u>	<u>Number</u>	<u>Ship</u>
Dorsey Model # 1	26	LYDONIA
808 A	53	GILBERT
808	63	WAINWRIGHT
808 A	76	LAUNCH # 79

TIDE STATIONS:

Automatic portable tide gages at Long Beach and North Chesapeake Bay, Maryland, furnished the information for tide reducers.

SMOOTH SHEET:

The smooth sheet was plotted in the hydrographic section of the Southeastern District, at Norfolk, Virginia.

CONTROL STATIONS:

Triangulation, - Previously established triangulation was used throughout this survey. The following stations were ^{changed} ~~adjusted~~ from the North American to the North American 1927 datum:

Peoples Chapel, Tilghman, 1909
Southern M.E.Ch., Tilghman, 1909
Jere, 1909
Rob, 1907

Topographic, - The topographic stations on the western shore were obtained from Topographic Surveys Nos. T-6956 and T-6957, while those on the eastern side of the sheet were obtained according to the information given in the list of signals.

See page 6 of this report

Hydrographic, - These were obtained in the usual manner by means of the sextant. "Haze" is a floating signal and was moored in such a manner that the swing allowed by the type of mooring was plus or minus 10 feet in a north and south direction and plus or minus 30 feet in an east and west direction.

SHORELINE:

The shoreline was obtained from the following topographic surveys,-

- T-6957 (1944)
- 6956 (1944)
- 8241 ~~5718~~ (1942)
- 8248 ~~5724~~ (1942)
- ~~5723~~
- 8111 (1943)
- 8110 (1942)

CONTROL OF HYDROGRAPHY:

All lines were controlled by sextant fixes on signals previously established.

CROSSLINES:

The crossings in general are in good agreement, except as noted under "discrepancies".

DISCREPANCIES:

Latitude 38° 35.82' and longitude 76° 27.64', 1 J (red). A 46 ft. sounding falls on a 38 ft. The general depth of the surrounding hydrography is 38 ft. The fathometer appears to have been read 10 ft. too deep. *46 rejected*

Latitude 38° 34.34' and longitude 76° 24.60', 254 - 255 J (red). A 46 ft. sounding falls on 41 ft. *46 rejected*

Latitude 38° 40.50' and longitude 76° 29.50', 113 - 114 M (red). The soundings on this line appear to be 2 ft. too deep.

*sdgs revised
- agreement
now satisfactory*

Latitude 38° 35.34' and longitude 76° 27.92', 1 - 15 S (red). The soundings on this line appear to be from 1 to 2 feet too deep.

*agreement
ok. with revised
sdgs.*

Latitude 38° 38.26' and longitude 76° 25.15', 22 - 24 S (red). Soundings on this line appear to be from 2 to 5 feet too deep.

sharp gradient - shoaler sdgs inked

Latitude 38° 39.17' and longitude 76° 24.48', 25 - 32 S (red). *Deeper sdqs rejected*
Soundings on this line appear to be 2 to 15 feet too deep.

All of the above soundings were obtained by the Dorsey No. 1 ✓
fathometer on the Ship LYDONIA.

REDUCERS:

The echo reducers for the ship hydrography were computed from ✓
Salinity and Temperature observations, whereas the echo
reducers for the 808 fathometers were determined from bar-checks.

The IDS (Index, Draft, Squat) for the Ship LYDONIA was
determined as follows: A comparison of theoretically reduced
fathometer soundings of the ship with soundings with the hand
lead, indicated an additional constant correction needed to be
applied to the fathometer soundings. These comparisons were
tabulated in two groups, as a new dial reading direct in feet
was installed on the Dorsey No. 1 fathometer during the repair
period. The draft was read by gauge glass at the position of
the Dorsey Transceivers and recorded in the records. While
in repairs the scale of the gauge was checked and found to be
in error by 0.15 foot, the transceivers being 0.15 foot deeper ✓
than indicated by the gauge. The draft as recorded in the
volumes has been corrected for the error. The squat of the
ship LYDONIA was determined on January 29, 1944, see Vol. # 2,
pp. 9 - 11. The value of the squat was found to be 0.45 foot
at 110 RPM. As the ship normally ran at 90 RPM while sounding,
a value of 0.35 ft. was accepted for the squat. All of the
above corrections were grouped and entered in the volumes as
one correction under IDS.

The M.V. GILBERT obtained a squat correction of 0.4 ft.
However, this correction was not applied to the soundings
obtained by this vessel. *this was referred to this office after*

*the sheet was completed
verbally by the chief party*

*No squat was
added in
Washington
office in
order that
results be
consistent with
Gilbert work on
inshore surveys
on which ~~not~~
squat was added.*

DANGERS AND SHOALS:

No dangers or shoals appear on this survey.

Respectfully submitted,

Isadore M. Zeskind
Isadore M. Zeskind
Cartographic Engineer

Norfolk, Va.
Dec. 6, 1944

Approved & Forwarded

Paul C. Whitney

Paul C. Whitney
Supervisor SE District

STATISTICS SHEET NO. H-6952

Launch WAINWRIGHT

DATE 1943	DAY LETTER	STATUTE MILES SOUNDING LINES	NUMBER POSITIONS
Dec. 3	A	Location of signals only	
Dec. 7	B	do.	
Dec. 8	C	13.9	28
Dec. 10	D	19.7	35

M. V. GILBERT1944

Mar. 16	A	35.2	97
Mar. 17	B	13.7	42
Mar. 22	C	32.1	98
Mar. 24	D	38.7	129
Mar. 28	E	40.3	123
Mar. 31	F	30.5	110
Apr. 4	G	28.9	107
Apr. 7	H	29.1	108
Apr. 10	J	20.7	98
Apr. 11	K	6.1	35

Totals		308.9	1010 ✓
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Total area surveyed 12.6 sq. statute miles

(5)

Lydonia

STATISTICS SHEET H-6952 (123)

DATE	DAY	SHIP	NO. SOUNDINGS H.L. & POLE.	NO. POSITIONS.	STATUTE MI. SDG. LINES.
1944					
Jan. 25	A	Lydonia	1	89	27.6
Jan. 28	B	"	0	210	69.0
Jan. 29	C	"	1	140	44.5
Feb. 1	D	"	0	33	9.7
Feb. 2	E	"	1	144 ⁵	47.0
Feb. 3	F	"	1	53	20.0
Feb. 4	G	"	1	213	67.9
Feb. 5	H	"	1	245	75.4
Feb. 6	J	"	1	267	80.2
Feb. 7	K	"	0	292	85.3
Feb. 8	L	"	0	244	76.8
Mar. 13	M	"	0	114	36.0
Mar. 14	N	"	0	99	32.8
Mar. 15	P	"	0	71	24.0
Mar. 18	Q	"	0	41	21.2
Apr. 3	R	"	0	54	11.2
Apr. 5	S	"	0	94	22.6
Apr. 11	a	Launch 79	<u>2</u>	<u>45</u>	<u>7.0</u>
TOTALS			9	1718	758.0

Area in square statute miles 49.1

Triangulation stations

BAKER 1933 ✓
 PEOPLES CHAPEL TILGHMAN I. 1909 ✓
 NORTH BEACH CALVERT HOTEL CUPOLA 1933 ✓
 JAMES 2, 1934 ✓
 JERE 1909 ✓
 KNAPP 1933 ✓
 LAND, SOUTHERN M.E.CH.TILGHMAN I. 1909
 S 1934
 GOVERNOR 1934 ✓
 PERSIMMON 1941 ✓
 ROB 1907 ✓
 SHARPS I. E.H. 1898, 1933 ✓
 CHESAPEAKE BEACH WATER TANK 1933 ✓

Topographic Stations

Abe H-6958 ✓
 Auk T-6957-a ✓
 Barn T-6956-b ✓
 Bee T-6956-a ✓
 Bet Air photo (house on T-5724, near
 Persimmon 1940) ✓
 Cedar T-5718 (no description)
 Corn T-6956-a ✓
 Dare T-6956-a ✓
 Dorm T-8111 ✓
 Fun T-6957-b ✓
 Hoe T-6956-a ✓
 Jug T-5718 (no description)
 Ken T-6956-a (also on T-8111) ✓
 Lap T-5723 ✓
 Lef T-6957-a ✓
 Leo T-6957-b ✓
 Nab T-6957-b ✓
 Ray T-6956-b ✓
 Red T-6956-b ✓
 Red Beacon T-5723 ✓ (Hoffman Pt. Light April 1941)
 Ren T-6956-b ✓
 Rod T-6957-b ✓
 Sow T-6956-a ✓
 Tree T-6957-a ✓
 Try T-6956-a ✓

Hydrographic Stations

Ban (destroyed - see boat sheet)
 Boy Transferred from boat sheet ✓
 sh H-6958 (no description)
 haze Theodolite cuts ✓
 Trap H-6958
 Wag H-6952
 Wain ✓
 Wood ✓
 N-18 Buoy ✓

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6952**

Records accompanying survey:

Boat sheets ..2.; sounding vols. ..15.; wire drag vols. .0099;
 bomb vols.; graphic recorder rolls ...11;
 special reports, etc.

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

Number of positions on sheet	2726
Number of positions checked	157
Number of positions revised	13
Number of soundings recorded	22,000 (Approx)
Number of soundings revised (refers to depth only)	55
Number of soundings erroneously spaced	38
Number of signals erroneously plotted or transferred	0
Topographic details	Time .13..
Junctions	Time .40..
Verification of soundings from graphic record	Time 258..

Verification by *F. N. Bell* Total time *311 hrs* Date *2 DEC 1946*

Review by *R. H. Carstens* Time *46* Date *Dec 11, 1946*

Remarks

Decisions

	Remarks	Decisions
1		
2		
3		
4		
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27		

GEOGRAPHIC NAMES
 Survey No. **H6952**

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List			
<u>Maryland</u>				(for title)						USGB	1
<u>Chesapeake Bay</u>		"	"							"	2
<u>James Point</u>											3
<u>Holland Point</u>											4
<u>North Beach</u>				(location of tide staff)						USGB	5
<u>Plum Point</u>				(write point in full, as a village)						"	6
<u>Kenwood Beach</u>											7
<u>Sharps Island</u>										"	8
<u>Tilghman Island</u>											9
											10
											11
											12
											13
											14
<u>Long Beach</u>				(location of one tide staff, off limits)							15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

Names verified in case approved
 by L. Heck on 4/14/46

RQC
ML

TIDE NOTE FOR HYDROGRAPHIC SHEET

December 19, 1944.

~~Division of Hydrography and Topography:~~

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

Plane of reference approved in
15 volumes of sounding records for

HYDROGRAPHIC SHEET 6952

see front page
Locality Herring Bay to James Point, Chesapeake Bay, Maryland.

Chief of Party: L. P. Raynor, I. E. Rittenburg & J. H. Brittain in 1943-44

Plane of reference is mean low water reading

2.3 ft. on tide staff at North Beach

8.9 ft. below B. M. 1

3.7 ft. on tide staff at Long Beach

6.8 ft. below B. M. 1

Height of mean high water above plane of reference is 0.9 foot at
North Beach; 1.0 feet at Long Beach.

Condition of records satisfactory except as noted below:

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

LIST OF SIGNALS - Sheet H-6952

Triangulation stations

BAKER 1933
 PEOPLES CHAPEL TILGHMAN I. 1909
 NORTH BEACH CALVERT HOTEL CUPOLA 1933
 JAMES 2, 1934
 JERE 1909
 KNAPP 1933
 LAND, SOUTHERN M.E.CH.TILGHMAN I.1909
 MAYS 1934
 GERNOR 1934
 PERSIMMON 1941
 ROB 1907
 SHARPS I.L.H. 1898,1933
 CHESAPEAKE BEACH WATER TANK 1933

Topographic Stations

Abe	H-6958
Auk	T-6957-a
Barn	T-6956-b
Bee	T-6956-a
Bet	Air photo (house on T-5724, near Persimmon 1940)
Cedar	T-5718
Corn	T-6956-a
Dare	T-6956-a
Dorm	T-8111
Fun	T-6957-b
Hoe	T-6956-a
Jug	T-5718
Ken	T-6956-a (also on T-8111)
Lap	T-5723
Lef	T-6957-a
Leo	T-6957-b
Nab	T-6957-b
Ray	T-6956-b
Red	T-6956-b
Red Beacon	T-5723
Ren	T-6956-b
Rod	T-6957-b
Sow	T-6956-a
Tree	T-6957-a
Try	T-6956-a

Hydrographic Stations

Ban	
Boy	Transferred from boat sheet
Bush	H-6958
ze	Theodolite cuts
Trap	H-6958
Wag	H-6952
Wain	
Wood	
N-18 Buoy	

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6952

FIELD NO. 123

Maryland, Chesapeake Bay, James Pt. to Holland Pt.
Surveyed in Dec. 1943 - Apr. 1944 Scale 1:20,000
Project No. CS-250

Soundings:

808 Fathometer
Dorsey I

Control:

Sextant fixes on shore signals

Chief of Party - L. P. Raynor, I. E. Rittenburg, J. H. Brittain
Surveyed by - R. R. Moore, I. E. Rittenburg, L. C. Johnson,
C. R. Reed, J. E. Waugh and L. Lewis
Protracted by - A. G. Atwill
Soundings plotted by - A. G. Atwill
Verified and inked by - F. H. Bell
Reviewed by - R. H. Carstens, December 9, 1946
Inspected by - H. W. Murray

1. Shoreline and Signals

The shoreline originates with planetable surveys T-6956 and T-6957 of 1944 and quadrangles T-8111 (1943), T-8110 (1942), T-8241 (1942) and T-8248 (1942).

The topographic signals originate with the surveys mentioned above and with air photographic surveys T-5718, T-5723 and T-5724 of 1937-41. Sextant fixes for supplementary hydrographic signals are recorded in the sounding records of the present or adjoining surveys.

2. Sounding Line Crossings

Depths at crossings are in satisfactory agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were satisfactorily delineated.

The bottom is smooth.

A natural channel delineated by the 60 ft. curve trends southward across the eastern part of the survey. A maximum depth of about 130 ft. is noted in lat. $38^{\circ} 40.1'$.

4. Junctions with Contemporary Surveys

Satisfactory junctions were effected with H-6954 (1944) and H-6955 (1944) on the west, H-7009 (1945) and H-6953 (1945) on the south, and H-7065 (1945) and H-7075 (1945) on the southeast.

The junction with H-6958 (1943-44) on the northeast will be considered when that survey is reviewed.

On the north the present survey is the limit of Project CS-250. Satisfactory junctions were effected with the prior surveys H-5374 (1933), H-5501 (1933) and H-5327 (1933).

5. Comparison with Prior Surveys

- A. H-188 (1846) 1:20,000
H-199 (1847-48) 1:20,000

Agreement with these early surveys is generally within 3 ft. in depths less than 60 ft. In greater depths there are differences as great as 10 ft. in some places.

The 60 ft. depth (chart 553) in lat. $38^{\circ} 31.96'$, long. $76^{\circ} 25.32'$, and the 40 ft. depth (chart 553) in lat. $38^{\circ} 34.75'$, long. $76^{\circ} 25.30'$ were inked 6 ft. in error on H-199. Present depths should supersede these prior soundings.

The present survey is adequate to supersede these prior surveys within the common area.

- B. H-2427 (1899) 1:40,000
H-2428 (1899) 1:40,000

These surveys consist of reconnaissance lines crossing the bay at 2 mile intervals. Agreement with present depths is generally good.

The 46 (uncharted) from H-2428 in lat. $38^{\circ} 31.35'$, long. $76^{\circ} 24.3'$ falling in present depths of 58 ft. was probably recorded 2 fms. in error and should be disregarded.

The present development is considered adequate to disprove the 34 ft. depth (chart 553) from H-2427, falling in present depths of 37 ft. in lat. $38^{\circ} 36.3'$, long. $76^{\circ} 27.65'$.

Except for supplementary bottom characteristics the present survey supersedes these prior surveys within the common area.

6. Comparison with Chart 553 (Latest print date 5/25/46)
Chart 1225 (Latest print date 3/9/46)

A. Hydrography

The charted hydrography originates mainly with the previously discussed surveys which need no further consideration and with critical depths from the present survey before verification and review.

- (1) The 41-ft. depth (chart 553) in lat. $38^{\circ} 30.9'$, long. $76^{\circ} 25.8'$ was erroneously charted from a 46 on H-2428 and should be disregarded. Present depths in this area are adequate for charting.
- (2) No specific investigation was made of the wreck in lat. $38^{\circ} 33.65'$, long. $76^{\circ} 25.50'$ where the word "wreck" and a 50-ft. sounding are charted. The wreck which was a barge covered by 18 ft. of water was first charted from Notice to Mariners No. 36 (1940). Revision in position was made in accordance with Notice to Mariners No. 38 (1940). A depth of 50 ft. over the wreck was reported in Notice to Mariners No. 33 (1942) which is the source of the present charting.

Until a specific investigation is made the word "wreck" should be retained on the chart.

B. Aids to Navigation

The lights charted from Notice to Mariners No. 37 (1944) in the vicinity of Plum Pt. and North Beach were established in their charted positions subsequent to the present survey. The present survey position of light "A" in lat. $38^{\circ} 37.99'$, long. $76^{\circ} 30.08'$ and light "B" in lat. $38^{\circ} 40.95'$, long. $76^{\circ} 30.50'$ should therefore be disregarded.

The present survey positions of other aids to navigation are in satisfactory agreement with the charted positions and satisfactorily mark the features intended.

7. Condition of Survey

The field plotting was accurately done.

The sounding records and Descriptive Report are complete and comprehensive.

A correction of +1.0 ft. was added to all soundings of the Launch WAINWRIGHT in order to bring agreement with crosslines and adjacent lines of soundings taken by the LYDONIA, which were consistently 1 to 2 ft. deeper. A similar discrepancy appears on H-7043 between soundings of the WAINWRIGHT and the soundings of other launches.

The records of the WAINWRIGHT show no verification of the accuracy of leadlines or lines supporting the bar used in bar checks, whereas the records of other parties show that their bar-check equipment was verified and proper corrections applied to the soundings. The discrepancies between soundings of the WAINWRIGHT and other parties may possibly be caused by the use of erroneous bar-check equipment on the WAINWRIGHT.

8. Compliance with Project Instructions

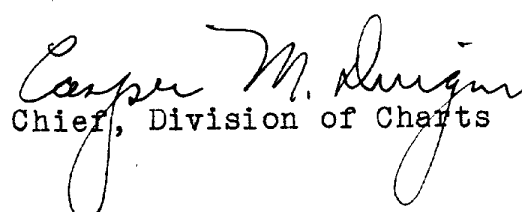
The survey satisfactorily complies with the Project Instructions except that no definite recommendation was made regarding the disposition of the wreck mentioned in paragraph 6(A) above.

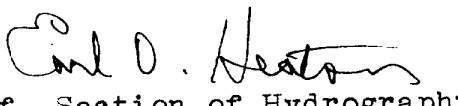
9. Additional Field Work Recommended

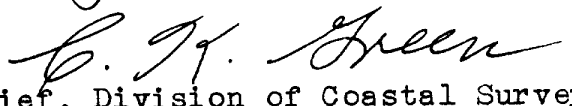
This is an excellent basic survey. However, the area in the vicinity of the wreck mentioned in paragraph 6(A) should be wire dragged.

Examined and approved:


Chief, Nautical Chart Branch


Chief, Division of Charts


Chief, Section of Hydrography


Chief, Division of Coastal Surveys

