

6956

a & b

| | |
|---------------------------------|-------------------------------|
| Form 504 | |
| U. S. COAST AND GEODETIC SURVEY | |
| DEPARTMENT OF COMMERCE | |
| DESCRIPTIVE REPORT | |
| Type of Survey | Topographic |
| Field No. A & B | Office No. T-6956 a & b |
| LOCALITY | |
| State | Maryland |
| General locality | Chesapeake Bay, western shore |
| Locality | Kenwood Beach to Plum Point |
| 194 4 | |
| CHIEF OF PARTY | |
| I. P. Raynor | |
| LIBRARY & ARCHIVES | |
| DATE | DEC 6 - 1944 |

B-1870-1 (1)++

6956

a & b

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter A & BREGISTER NO. T-6958 a & bState MARYLANDGeneral locality CHESAPEAKE BAY, western shoreLocality Kenwood Beach to Plum PointScale 1-10000 Date of survey Jan. - March, 19 44Vessel U. S. C. & G. S. S. LYDONIAChief of Party L. P. RaynorSurveyed by C. J. WagnerInked by C. J. Wagner

Heights in feet above _____ to ground to tops of trees

Contour Approximate contour Form line interval _____ feet

Instructions dated April 17, 1940 & September 23, 19 43

Remarks: _____

DESCRIPTIVE REPORT

to accompany

Topographic sheet No. T-6956 a & b

Project CS-250, Chesapeake Bay, Md. USC&GS Ship LYDONIA
L. P. Raynor, Commanding.

Instructions: April 17, 1940 and September 23, 1943.

Area

These sheets cover location of signals and parts of shoreline from Kenwood Beach to North Beach, Maryland, on western shore of the Chesapeake Bay. *shoreline was completed in the Washington Office from air photographs.*

General Description of Coast

From Kenwood Beach north to the lower limits of T-6957 b, the shore is usually sand and backed by bluffs, except at the mouth of the many valleys. In places the high water line is at the bluff. On sheet T-6957 b, the shore is mostly bulkheaded with timber or steel.

Control

The control stations were from the 1933 and 1934 triangulation, adjusted on NA 1927 datum. A few stations of the 1907 triangulation were recovered and adjusted to the NA 1927 datum by differences at Sharps Island Lighthouse 1898, positions as listed in Special Publication No. 114 and as listed on NA 1927 datum. A list of these stations is attached to this report.

Difficulty was experienced in getting good orientation lines at the triangulation stations. At Patch 1907, topo. signal DARE, located from Buckler 1934, was used for orientation. At Buckler 1934, BM No. 1 was used for orientation. At Baker 1933, ^{T-6957 b (copy)} Sharps Island Lighthouse was used for orientation. The computations of the azimuths to be plotted on the sheet are attached to this report. These azimuth lines are left on the sheets in pencil. At Hutchins 1934, Sharps Island L.H. was used for Az.

Azimuth lines in pencil have been erased from the sheet. See computations at end of D.R.

Traverses

All traverses listed below were adjusted by the Straight Line method.

Traverse from Patch 1907 to Governor 1934, closure of 20 meters, distance 3.5 statute miles. As this looked high, all the stadia distances were checked in the field, and no appreciable error found. It appeared to be uniform in over-reading and adjustment made per straight line.

Traverse from Patch 1907 to Buckler 1934, closure 3 meters, distance one statute mile.

Traverse from Buckler 1934 to Hutchins 1934, closure 7 meters, distance 4.8 statute miles.

Photographs

Many objects were spotted and located on the nine-lens photographs of this area. Cards, form 524, are transmitted herewith for these stations, and the points are indicated on the pictures with a red circle. The number of the picture on which the object is pricked is indicated in the upper right corner of the cards.

Submitted
RNC

Change in Shoreline

No comparison with earlier surveys was made. From the plotted positions of some triangulation stations, the shoreline appears to have receded westward distances of from 10 to 40 ft. Several stations have been lost due to erosion of the bluff, among them Ill 2 1907 and Hard 1907.

Magnetic Meridians

Alidade H-190 has the regular declinatoire and the regular red lines are shown on the sheet. Alidade 235 has the needle mounted at center of a circle, graduated to half degrees. This was used by placing edge marked E, which placed S to north, and the variation read directly, estimated to tenths of a degree.

Values of the variation as scaled from the sheet are:

| Decl.No. | Station | Date | Time | Mag. Var. |
|----------|--------------|---------|----------|-----------|
| | | 1944 | | |
| H-190 | Gas | Feb. 4 | 2:45 pm | 7° 38' W. |
| H-190 | Patch 1907 | Feb. 2 | 10:30 am | 8 06 W. |
| H-190 | Buckler 1934 | Jan. 28 | 2:10 pm | 8 04 W. |
| 235 | Buckler 1934 | Mar. 26 | 9:45 am | 7.5 W. |

As this party had no Magnetometer or Declinometer, no calibration of the declinatoires has been made. It will be done during the coming field season.

Miscellaneous

Attached hereto are several sheets, computations of azimuth lines for plotting of the sheets, positions of triangulation stations from Spec. Pub. No. 114, and inverses.

The rodded points on the high water line are indicated by ✓
breaks in the inked line and small ink dots.

The rods with each alidade used were checked over taped ✓
distances and found to be correctly graduated.

Statistics

Statute miles of shoreline 7.2, total beach line on the ✓
sheets, not the actual amount rodded in and inked.

Respectfully submitted,

/signed/ CLIFTON J. WAGNER

Clifton J. Wagner
Lt. Comdr. C & G S

Approved and forwarded:

/signed/ L. P. RAYNOR

L. P. Raynor, Commander C & G S,
Commanding Ship LYDONIA

Descriptive Report, T-6956 a and b

Triangulation Stations from Special Publication No. 114 TRIANGULATION IN MARYLAND, were plotted on the sheet using the datum differences from the position of Sharps Island Lighthouse as shown therein and as determined on NA 1927:

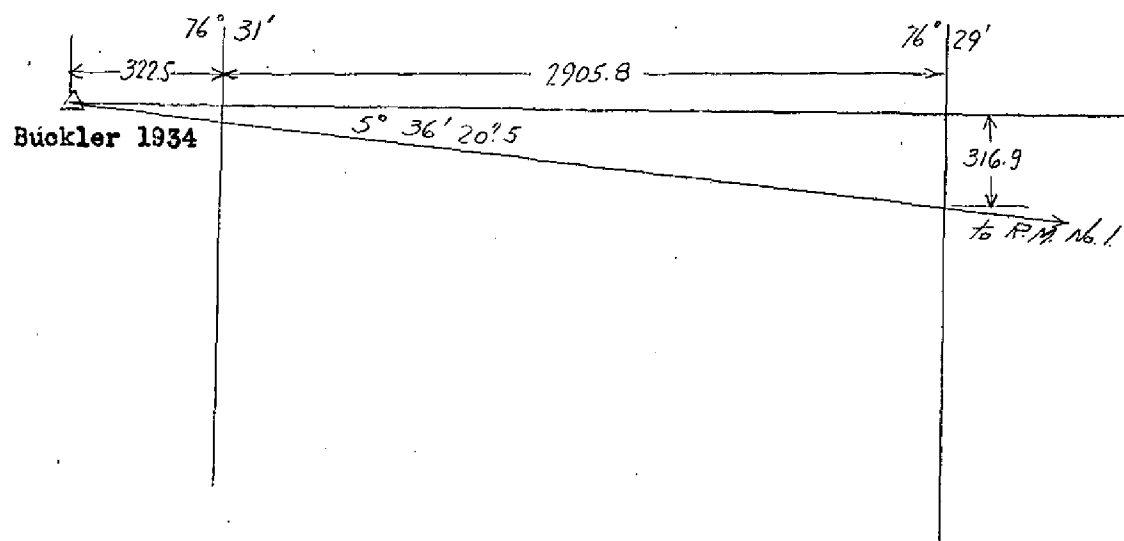
| | | | |
|-------------------------------|--------------|--------|-----------------|
| Sharps Island Lighthouse 1898 | (Sp.Pub.114) | 38°38' | 636.2 m |
| | (NA 1927) | | 624.3 m |
| | | | <u>- 11.9 m</u> |

| | | | |
|--|--------------|--------|--------------|
| | (Sp.Pub.114) | 76°22' | 808.7 m |
| | | | 813.4 m |
| | | | <u>4.7 m</u> |

| | | | | |
|----------|---------|--------------|---------|------------|
| ROB 1907 | 38° 33' | 1.3 | 76° 31' | 336.5 |
| | | <u>-11.9</u> | | <u>4.7</u> |
| | 32' | 1838.4 m | | 341.2 m |

| | | | | |
|------------|---------|---------------|---------|------------|
| PATCH 1907 | 38° 32' | 1653.3 | 76° 31' | 58.2 |
| | | <u>- 11.9</u> | | <u>4.7</u> |
| | | 1641.4 m | | 62.9 m |

Computation of azimuth line

BUCKLER 1934 to R.M.No. 1 azimuth $275^{\circ} 36' 20''$ 

| | |
|------------|--------------|
| log 3228.3 | 3.508 9739 |
| log tan a | 8.991 8956 |
| log x | 2.500 8695 |
| x | 316.9 meters |

~~Horizontal distance 3228.3 meters~~

x

Computed by JOP
Checked CJW

Remarks

Decisions

| | | |
|-------|--|--|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |
| 14 | | |
| 15 | | |
| 16 | | |
| 17 | | |
| 18 | | |
| 19 | | |
| 20 | | |
| 21 | | |
| 22 | | |
| 23 | | |
| 24 | | |
| 25 | | |
| 26 | | |
| 27 | | |
| M 234 | | |

GEOGRAPHIC NAMES

Survey No. **T6956** *26h*

| GEOGRAPHIC NAMES | | | | | | | | | | | |
|------------------|---|-----|---|---|---|---|---|---|-------|----|--|
| Survey No. T6956 | | 22b | | | | | | | | | |
| Name on Survey | | | | | | | | | | | |
| | A | B | C | D | E | F | G | H | K | | |
| Maryland | | | | | | | | | USA-B | 1 | |
| Chesapeake Bay | | | | | | | | | " | 2 | |
| Kenwood Beach | | | | | | | | | | 3 | |
| Dares Beach | | | | | | | | | " | 4 | |
| Plum Point | | | | | | | | | " | 5 | |
| | | | | | | | | | | 6 | |
| | | | | | | | | | | 7 | |
| | | | | | | | | | | 8 | |
| | | | | | | | | | | 9 | |
| | | | | | | | | | | 10 | |
| | | | | | | | | | | 11 | |
| | | | | | | | | | | 12 | |
| | | | | | | | | | | 13 | |
| | | | | | | | | | | 14 | |
| | | | | | | | | | | 15 | |
| | | | | | | | | | | 16 | |
| | | | | | | | | | | 17 | |
| | | | | | | | | | | 18 | |
| | | | | | | | | | | 19 | |
| | | | | | | | | | | 20 | |
| | | | | | | | | | | 21 | |
| | | | | | | | | | | 22 | |
| | | | | | | | | | | 23 | |
| | | | | | | | | | | 24 | |
| | | | | | | | | | | 25 | |
| | | | | | | | | | | 26 | |
| | | | | | | | | | | 27 | |

L. Heck 4/7/47

M 234

L. Heck 4/7/47
 4/7/47

Descriptive Report (Office)

T-6958⁶ a+b

Those sections of the mean-high-water line and, also, any piers and offshore structures, which were not shown on the Topographic Sheets, were applied, these additions were shown in green ink.

The mean-high-water line was stereoscopically interpreted from the following ^{field} 8-lens photographs: 8927 to 8929 inclusive (flown on 4/22/42), 8924 and 8926 (flown on 4/15/42). The stage of tide, at the time these photos were flown, was about 0.6 to 0.7 of a foot above mean-low-water. The interpretation of the mean high water line was facilitated by information available in the field descriptive reports and in the delineation of portions of the mean-high-water line on the field photographs by the field inspection party.

The mean high-water line and other detail were applied to the Topographic Sheets with the projector, a sufficient number of topographic stations, which were located on the Sheets, had been identified in the field on the photographs to insure adequate control for the location of the detail.

Respectfully Submitted,
Charles Henavich
Mar. 15, 1945

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF TOPOGRAPHIC SURVEY

REGISTRY NO. 6956a & b

FIELD NO. A & B

Maryland, Chesapeake Bay, Kenwood Beach to Plum Pt.
Surveyed Jan. - March 1944 Scale 1:10,000

Project C.S. 250

Instructions dated April 17, 1940 & Sept. 23, 1943

Plane Table Survey

Aluminum Mounted

Chief of Party - L. P. Raynor

Surveyed by - C. J. Wagner

Inked by - C. J. Wagner & Charles Hanavich

Reviewed by - R. H. Carstens, April 3, 1947

Inspected by - H. W. Murray

1. Adjoining Surveys

The present survey adequately joins T-6968a (1944-45) on the south and T-6957a (1944) on the north.

2. Comparison with Prior Surveys

| | | |
|--------|-----------|----------|
| T-280 | (1847) | 1:20,000 |
| T-281 | (1847) | 1:20,000 |
| T-2836 | (1907) | 1:20,000 |
| T-2842 | (1907) | 1:20,000 |
| T-2861 | (1907-08) | 1:20,000 |
| T-2868 | (1908) | 1:20,000 |

Since the 1847 surveys were made, the shoreline has receded as much as 175 meters in places where the shore area has little elevation as for example in the vicinity of lat. 38°-37.2', long. 76°-30.8' (T-6956.b). In areas where bluffs border the bay, the high-water line has receded about 50 meters. An exception to the general shoreline recession, however, is found in the 1½ mile stretch of high-water line in the vicinity of lat. 38°-31' (T-6956a) where the shoreline has advanced about 30 meters offshore from the location on the prior surveys.

Several piers (charted) shown on the 1907-08 surveys have been carried forward as submerged ruins of piers. These ruins are specifically discussed in the reviews of H-6955 (1944) and H-7009 (1944-45) where charting as under-water ruins is recommended.

The present survey together with the previously mentioned additions is adequate to supersede these prior surveys for charting the shoreline in the common area.

3. Comparison with Chart 1225 (Latest print date 11/25/46)

A. Topography

The present survey has been applied to this chart. No further comment is necessary.

B. Magnetic Variation

The present survey value of the magnetic variation is in satisfactory agreement with the charted value. The Descriptive Report states that the standardization of declinoires would be made the following season. No information regarding the results of standardization is available in the present report.

4. Condition of Survey

The smooth sheet was neatly inked. The shoreline in green was added in the Washington Office from air photographs.

The Descriptive Report was complete in all essential details.


5. Compliance with Project Instructions

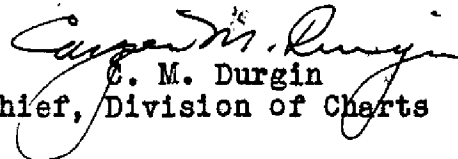
The present survey adequately complies with the Project Instructions.

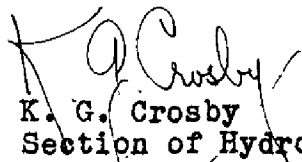
6. Additional Field Work Recommended


This is an excellent survey and no additional work is required.

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

SURVEY NO. T 6956a-b

[illegible]

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.