

8095

Diag. Cht. No. 78-4

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Air Photographic (Shoreline)

Field No. _____ Office No. T-8095

LOCALITY

State Virginia

General locality James River (Old Channel)

Locality Farrar Island

194 1-'43

CHIEF OF PARTY

E.B.Lewey, Chief of Party

F.L.Peacock, Balto. Photo. Office

LIBRARY & ARCHIVES

DATE February 17, 1950

B-1870-1 (1)

8095

DATA RECORD

Form T-1

T-8095

Quadrangle (II): Chester, Virginia

Project No. (II): CS-283

Field Office:

Air Photographic Party No. 2

Chief of Party: Ernest B. Lewcy
Fred. L. Peacock

Compilation Office:

Baltimore Photogrammetric Office

Chief of Party: Fred. L. Peacock

Instructions dated (II III):

March 26, 1942 - July 15, 1942

September 30, 1942 - November 14, 1942

Div. of Photogrammetry
Office Files
Copy filed in Descriptive
Report No. T (VI)

Completed survey received in office: 9-15-44

Reported to Nautical Chart Section: 9-22-44

Reviewed: 12-17-48 Applied to chart No. 531

Date: Partially 4-4-45
Completely 2-4-47

Redrafting Completed:

Registered: 2-2-50

Published:

Compilation Scale: 1:10,000

Published Scale:

Scale Factor (III): None

Geographic Datum (III): N. A. 1927

Datum Plane (III): MHW
Mean Sea Level

Reference Station (III): CHESTER 1932, r. 1943

Lat.: 37° 21' 26.223" 808.4 Long.: 77° 25' 10.485" 258.0 Adjusted
(1041.3) (1218.6) Unadjusted

State Plane Coordinates (VI): Virginia, South Zone

X = 2, 314, 019.26

Y = 374, 597.95

Military Grid Zone (VI)

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
7630 to 7639	11/25/41	1:20 P.M.	1:10,000	1.2' above M. L. W.
7555 to 7561	11/25/41	11:42 A.M.	1:10,000	This group of photographs does not cover any tidal waters and was not used for detailing.

Tide from (III); Predicted tables, Reference Station - Washington, D. C., with time correction for Dutch Gap, Virginia.

Mean Range: 3.4'

Spring Range: 3.9'

Camera: (Kind or source) U.S.C.&G.S. nine lens camera (focal length - $8\frac{1}{2}$ ").
All negatives on file in Washington Office.

Field Inspection by: Lieut. Comdr. Henry O. Fortin
Ernest B. Lowey

date: Season of 1943
April

Field Edit by: None

date:

Date of Mean High-Water Line Location (III): Date of photographs, supplemented by field inspection data obtained in 1942-1943. Season's Field Inspection Reports previously submitted.

Projection and Grids ruled by (III) B.R.C. - J.T.B.

date: 5-4-44

" " " checked by: B.R.C.

date: 5-4-44

Control plotted by: J.E. Sunderland - A. C. Rauck, Jr.

date: 5-16-44 - Aug. 7-14, '44

Control checked by: W. E. Schmidt - J. E. Deal, Jr.

date: 5-16-44 - Aug. 7-14, '44

Radial Plot by: A. C. Rauck, Jr. - J. E. Deal, Jr.

date: Aug. 7-14, 1944

Detailed by: M. E. Herzog

date: Aug. 21, '44 - Sept. 4-19 '44.

Reviewed in compilation office by: R. Glaser

date: Aug. 31, '44 - Sept. 4, 1944

Elevations on Field Edit Sheet

checked by:

None

date:

STATISTICS (III)

Land Area (Sq. Statute Miles); This Map Drawing covers shoreline only.

Shoreline (More than 200 meters to opposite shore); $2\frac{1}{2}$ Statute Miles.

Shoreline (Less than 200 meters to opposite shore); $4\frac{1}{2}$ Statute Miles.

Number of Recoverable Topographic Stations established; 1

Number of Temporary Hydrographic Stations located by radial plot; 5

Leveling (to control contours) - miles;

Roman numerals indicate whether the item is to be entered by,

(II) Field Party. (III) Compilation Party, or, (VI) the Washington Office.

When entering names of personnel on this record give the surname and initials (not initials only).

Remarks;

Field Inspection

Field inspection data for the area of T8095 are contained in the "Report on Field Inspection of Air Photographs, James River, Newport News to Hopewell, Virginia" by Ernest B. Lewey, dated October 12, 1942. Filed in Division of Photogrammetry, General Files.

26 CONTROL:

The following horizontal control stations fall within the limits of this Map Drawing. They are:

United States Coast & Geodetic Survey Second Order Triangulation Station:

CHESTER 1932, r. 1943

United States Coast & Geodetic Survey Intersection Station:

SUNSET MEMORIAL PARK, AIRWAY BEACON No. 54, 1932, r. 1940, 1943

United States Geological Survey Monumented Traverse Stations:

18, CH-11, 1937, r. 1943
247 - 540 TT - 4T - 1937, r. 1943

United States Geological Survey Temporary Traverse Stations, established in 1937 and recovered in Season 1942-1943, namely:
See Review Report

669+	313A	272A
674	313+	252+
680	328+	545
683+	326+	832+
704	305+	603A-844A
12+	265A	547+
811A	823+	245+
804	829+	244A
		554

The following horizontal control stations fall just outside the limits of this Map Drawing. They are:

United States Coast & Geodetic Survey Second Order Triangulation Stations:

STONEMAN 1943, r. 1943
DUTCH GAP 1942, r. 1943
DUTCH, 1932, r. 1943

United States Coast & Geodetic Survey Intersection Stations:

CHIMNEY WHITE HO. RED ROOF 1942, r. 1943
WOODEN TOWER 1942, r. 1943
SMALL BLACK STACK 1942, r. 1943

26 CONTROL: Cont'd.

United States Geological Survey Monumented Traverse Stations:

567 Also TT-T7, 1937, r. 1943

United States Geological Survey Temporary Traverse Stations,
established in 1937 and recovered in Season of 1942-1943, namely:

713	836	349+	558+	332
885	601A	353	540	338+
879	606+	231A	283A	343A
869	593A	453A	278	
861+	597	586	450+	

All of the horizontal control stations mentioned were used to establish photograph centers, secondary control points, and detail points.

27 RADIAL PLOT:

The Radial Plot for this Map Drawing is part of the combined Radial Plot for Surveys Nos. T-8089, T-8090, T-8091, T-8094, T-8095, and T-8096, the Descriptive Report for which, was submitted to the Washington Office on September 1, 1944. Filed in Div. of Photogrammetry General Files

28 DETAILING:

In accordance with Instructions, dated March 26, 1942, the shoreline and adjacent planimetry only, of that portion of the James River and its tributaries falling within the area of this Map Drawing, has been detailed. Filed in Div. of Photogrammetry - Office Files

The part of the James River falling within the limits of this Map Drawing is not used as a channel for navigation of the main river. Aiken Swamp, Dutch Gap Cut-Off, which does not appear within the area of this Map Drawing, has been cut through Hatcher Island. This Cut-off permits a more direct navigable route of the river. The northeastern area of the portion of the James River, which falls within the limits of this Map Drawing, is now a large marsh area. On Farrar Island is a large sand and gravel pit filled with water. A wooden bridge has been constructed from the main land to the west side of Farrar Island.

The shoreline and immediate adjacent culture of the part of James River detailed on this Map Drawing has been detailed according to the Director's letters, dated March 26, 1942, July 15, 1942, and September 30, 1942, pertaining to Project No. CS-283.

28 DETAILING: Cont'd.

Positions of minor detail points, temporary hydrographic stations and recoverable topographic stations were determined by the usual radial line method.

The shoreline data furnished the Compilation Office by the Field Inspection Unit were transferred to the office photographs from the field inspection photographs. These data were then detailed on the Map Drawing. Areas adjacent to the shoreline were detailed in accordance with field inspection data and office examination of the nine lens photographs.

The number of nine lens photographs covering the area of this Map Drawing was sufficient for detailing. The scales of the photographs and of the Map Drawing were in good agreement.

The Mean High-Water Line, (heavy line, firm ground) along the western shore of that part of the James River detailed on this Map Drawing, could not be definitely identified by the Field Inspection Unit. However, by office delineation and use of the stereoscope, it is believed that the Mean High-Water Line, shown on the Map Drawing, for this portion of the James River is correct. It is possible that indentations or protrusions of a very minor character, not visible by stereoscopic examination of the photographs, may occur in this portion of the Mean High-Water Line.

29 SUPPLEMENTAL DATA:

No supplemental data were furnished the Compilation Office for use in detailing this Map Drawing.

30 MEAN HIGH-WATER LINE:

Full heavy weight and light weight black acid ink lines have been used to differentiate between the Mean High-Water Line and outer limits of marsh bordering the Mean High-Water Line, respectively. The light weight line is not considered to be the Mean High-Water Line, but is only an indication of the outer limits of low wet land at Mean High-Water.

31 LOW-WATER AND SHOAL LINES:

No Mean Low-Water Line has been shown on this Map Drawing and none was indicated by the field inspection data or was visible on the nine lens photographs.

Sand areas, visible on the photographs, outside the Mean High-Water Line have been shown with the conventional sand symbol.

31 LOW-WATER AND SHOAL LINES: Cont'd.

^{One shallow}
~~Two~~ shoal areas ^{has} been detailed according to field inspection data and ^{is} ~~are~~ shown outlined with a dashed black acid ink line, with the word "Shoal" lettered inside.
^{shallow}

32 DETAILS OFFSHORE FROM MEAN-HIGH WATER LINE:

Two areas containing logs, covered at Low water, 2 piling areas and stakes covered at Mean High-Water are shown, on this Map Drawing offshore from the Mean High-Water Line. The extent to which the piling in one area bares at Mean Low-Water has been noted. No data were available to the Compilation Office of the extent to which the other offshore details bare or cover.

33 WHARVES AND SHORELINE STRUCTURES:

The only shoreline structures appearing in the area of this Map Drawing are a cat-walk and an old dam. No additional shoreline structures are indicated by field inspection data or visible on the photographs.

34 LANDMARKS AND AIDS TO NAVIGATION:

There are no fixed aids to navigation within the limits of this Map Drawing.

No objects were recommended for charting as landmarks within the limits of this Map Drawing.

35 HYDROGRAPHIC CONTROL:

The Compilation Office was furnished the identification of five temporary hydrographic stations and one recoverable topographic stations. These were identified on the 1:10,000 field photographs by numbers and their descriptions listed in a Field Sketch Book (Form No. 274) by corresponding numbers. These stations were transferred to the 1:10,000 office photographs and radially plotted on the Map Drawing. The numbers and descriptions of these stations have been noted near the station to which they refer, directly on the Map Drawing.

^{See Review Report}

Form No. 524 is being submitted for the one recoverable topographic station, namely:

"~~TELEGRAPH POLE AT END OF BRIDGE~~", 1942

36 LANDING FIELDS AND AERONAUTICAL AIDS:

No aeronautical aids have been recommended by the Field Inspection Unit.

There are no landing fields within the area of this Map Drawing.

37 JUNCTIONS:

Satisfactory and complete junction has been made,
To the North with Map Drawing, Survey No. T-8096.
To the East with Map Drawing, Survey No. T-8090.

There is no contemporary survey to the West.

To the South is Map Drawing for Survey No. T-8094. There is no shoreline detail at the junction between Map Drawing, Survey No. T-8094, and Map Drawing, Survey No. T-8095.

38 GEOGRAPHIC NAMES: Approved list filed in Geographic Names Section

No geographic name investigation has been made for the area of this Map Drawing. The geographic names shown on this Map Drawing have been taken from the only source available to the Compilation Office, namely: The United States Geological Survey; CHESTER, VA., seven and a half minute Quadrangle, edition of 1944. A list of these names, which are believed by the Compilation Office to be undisputed, are attached to this Descriptive Report.

39 HORIZONTAL ACCURACY:

The probable error in the relative positions of detail points, the Mean High-Water Line, and well defined objects, is believed to be within the limits of satisfactory accuracy.

40 RECOMMENDATIONS FOR FUTURE SURVEYS:

The shoreline, rough draft, Map Drawing, Survey No. T-8095, is believed to be complete in all details for charting and no other surveys are deemed necessary.

41 BRIDGES:

One fixed wooden bridge connecting the west end of Farrar Island with the main land, has been shown on the Map Drawing with the conventional symbol, accompanied by a pertinent note, in accordance with the field inspection data. Clearances are not in agreement with H 7083 (1946)

44 COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES:

Comparison was made with the United States Geological Survey, Chester, Va. $7\frac{1}{2}$ minute quadrangle, edition of 1944, scale 1:31,680.

Common topographic features are in general fair agreement. The water area of the gravel pits on Farrar Island is shown on the quadrangle of slightly different shape than that shown on the Map Drawing.

45 COMPARISON WITH NAUTICAL CHARTS:

This portion of the James River is not shown on any recent United States Coast and Geodetic Survey Nautical Charts of the James River proper and its tributaries.

Respectfully Submitted:
September 12, 1944

M. Eleanor Herzog
M. Eleanor Herzog,
Asst. Photogrammetric Aid

Compilation and Descriptive
Report, Reviewed by:

Raymond Glaser
Raymond Glaser,
Sr. Engineering Draftsman

Compilation of Map Drawing,
Supervised By:

J. Edward Deal, Jr.
J. Edward Deal, Jr.,
Asst. Photogrammetric Engineer

Approved and Forwarded:

Fred. L. Peacock
Fred. L. Peacock
Chief, Air Photographic Party No. 2

Descriptions of Photo-Hydro Stations
T-8095

- 788 - Most westerly tip of grass next to channel.
- 789 - N.E. Corner of wreck of barge.
- 790 - Tip of cattails on mud bank.
- 791 - Tip of grass on north side of sharp break.
- 793 - Detached tuft of grass.

T 8095

GEOGRAPHIC NAMES

Undisputed

- ✓ • Aiken Swamp
- ✓ • Farrar Island
- ✓ • Howlett House
- ✓ • James River (Old Channel)

Names preceded by.
are approved 12/6/48
L. Heck

Division of Photogrammetry
Review Report of
Shoreline Map Manuscript T-8095

Subject numbers not used in this report have been adequately covered in other parts of the descriptive report.

26 - Control

All unmarked U.S.G.S. temporary traverse stations were removed from the map manuscript.

37 - Topographic and Photo-Hydro Stations

A list of photo-hydro stations was prepared and made a part of the descriptive report.

43 - Comparison with Contemporary Hydrographic Surveys

H-7083	1:10,000	1946
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The horizontal and vertical clearances for the bridge to Farrar Island differ on the map manuscript and the hydrographic survey.

The southern shoreline on the sand and gravel pit has changed considerably on the hydrographic survey probably because of dredging operations.

Several sunken barges that were not indicated by the field inspector are shown on the hydrographic survey.

44 - Comparison with Existing Surveys

USGS Chester Quadrangle	1:31,680	1944
T-429	1:10,000	1853
T-393	1: 5,000	1857
T-1439	1:10,000	1877
H-3227	1:10,000	1911

Common features on all previous surveys are superseded by the map manuscript in common area *for nautical charting purposes.*

45 - Comparison with Nautical Charts

Chart No. 531	1:20,000	1947
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The change in shoreline and the wrecks noted in Paragraph 43 have been shown on the nautical chart.

51 - Application to Nautical Charts

The map manuscript has been applied to the nautical chart.

Reviewed by:

Charles Theurer
C. Theurer
12-17-48

A. V. Griffith *K.H.M.*
S.V. Griffith
Chief, Review Section

B. J. Jones 2/50
Technical Asst. to Chief,
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