

8078

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-8078

LOCALITY

State Virginia

General locality James River

Locality Chickahominy River - Upper Chippokes
Creek

194 1-'42

CHIEF OF PARTY

F.L. Peacock & L.W. Swanson

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DATE

8078

DATA RECORD

T-8078

Quadrangle (II):

Surry, Va. (15') (U.S.G.S.)

Project No. (II):

CS-283

Field Office:

Air Photographic Party No. 2
Baltimore, Maryland

Chief of Party:

Fred. L. Peacock
L. W. Swanson

Compilation Office:

Air Photographic Party No. 2
Baltimore, Maryland

Chief of Party:

Fred. L. Peacock *Division of*
Copy filed in *Descriptive*

Instructions dated (II III):

March 26, 1942

supplemental instructions dated:

July 15, 1942, Sept. 30, 1942; Nov. 14, 1942

~~Report No. T- (VI)~~
Photogrammetry Office Files.

Completed survey received in office: 11-25-43

Reported to Nautical Chart Section: Nov. 1943

Reviewed: 9 Sept. 1948

Applied to chart No. 530

Date: 7-12-44

Redrafting Completed:

Registered: Feb. 13 1950

Published:

Compilation Scale: 1:10,000

Published Scale:

Scale Factor (III): None

Geographic Datum (III): North American 1927

Datum Plane (III): *High Water*
Mean ~~Sea Level~~

Reference Station (III): WAKEFIELD 1938, r.1942

Lat.: 37° 13' 25.158" 775.6m Long.: 76° 56' 29.818" 735.1m *Adjusted*
~~Unadjusted~~State Plane Coordinates (VI): *Virginia - South Zone*

X = 2,453,729.41

Y = 327,893.15

Military Grid Zone (VI)

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
7472 - 7476	11/25/41	10:37 a.m.	1:10,000	0.4' above M. L. W.
7480 - 7484	11/25/41	10:37 a.m.	1:10,000	0.4' above M. L. W.
7463 - 7466	11/25/41	10:22 a.m.	1:10,000	0.5' above M. L. W.
7696	11/26/41	10:00 a.m.	1:10,000	0.9' above M. L. W.

Tide from (III): Predicted tide tables, Reference Station Hampton Roads, Virginia, with time correction to Claremont Wharf.

Mean Range: 2.0' Spring Range: 2.3'

Camera: (Kind or source) U. S. Coast & Geodetic Survey nine lens camera (focal Length $8\frac{1}{4}$ "). All negatives are on file in the Washington Office.

Field Inspection by: Lieut. Ernest B. Lewey date: Summer, 1942

Field Edit by: *None* date:

Date of Mean High-Water Line Location (III):

11/25-26/41

Projection and Grids ruled by (III) J. O'Neill date: July 28, 1943

" " " checked by: B. R. C. date: July 28, 1943

Control plotted by: Ada May Hobine date: Aug. 2 to Aug. 3, 1943

Control checked by: Harry R. Rudolph date: August 3, 1943

Radial Plot by: Walter E. Schmidt date: September, 1943

Detailed by: Donald M. Brant (Shoreline -- rough draft) date: Oct. & Nov., 1943

Reviewed in compilation office by: Michael G. Misulia date: November, 1943

Elevations on ^{Map Manuscript} ~~Field Edit Sheet~~
checked by: *Not applicable* date:

STATISTICS (III)

Land Area (Sq. Statute Miles); 2

Shoreline (More than 200 meters to opposite shore): 13.8 Statute miles

Shoreline (Less than 200 meters to opposite shore): 4.2 Statute miles

Number of Recoverable Topographic Stations established: 10

Number of Temporary Hydrographic Stations located by radial plot: 41

Leveling (to control contours) - miles: None

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:

SUMMARY TO ACCOMPANY T⁸⁰⁷⁸

T⁸⁰⁷⁸, Scale 1:^{10,000}, is one of 40 shoreline surveys in Project CS-283 along the James River, Virginia.

Project CS-283 was originally planned as a planimetric mapping project but was limited to shoreline surveys only after War Mapping Project CS-289, covering practically all the James River, was undertaken.

Topographic quadrangle, T⁸³²⁰ (Project CS-289) completely covers T⁸⁰⁷⁸. The former was compiled in 1944 from 1:20,000 scale photographs taken in 1942, in contrast with T⁸⁰⁷⁸, compiled in 1942-3 from 1:10,000 scale photographs taken in 1941.

Field Inspection

Field inspection data for the area of T-⁸⁰⁷⁸ 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.

DESCRIPTIVE REPORT
OF THE
MAIN RADIAL PLOTS
FOR
THE AREAS OF SURVEYS NOS. T-8075 to T-8079 INCLUSIVE
JAMES RIVER, VA.
PROJECT NO. CS-283

Three combined plots were laid for the areas of Surveys Nos. T-8075 to T-8079, inclusive, by the radial celluloid template method. In addition to these, three individual plots were laid for each of the areas by the radial celluloid template method, and two individual plots were also laid for each of the areas by the radial method without the use of celluloid templates.

The combined area of the five surveys was well covered by photography. However, the flights were not well distributed, and it is believed that a better distribution would have been advantageous because of the difficulties encountered which are to be discussed in detail in the following paragraphs. The photographs, in general, were blurred in the extreme outer portions. A partial blackout of photographic detail at the extreme outer limits of some of the side marks, or wings, was also encountered, generally in those sections where photographic detail was most needed.

The horizontal control in the area of the five surveys consists mainly of triangulation stations established by the Bureau. In addition, there are a number of triangulation stations established by the United States Engineers, and also a number of United States Geological Survey traverse stations. "Field Inspection Points" selected in the field and identified on the photographs by means of their images, were substituted for many of the triangulation stations.

All of the positions of the above mentioned control, including those of the "Field Inspection Points", were plotted on the Map Drawings from geographic coordinates.

A few triangulation stations, although recovered in 1942 by the Field Inspection Party were not used to control the radial plots. The note "Not used" has been shown in conjunction with their names on the Map Drawings. The Field Inspection Party probably found it too difficult to determine their photographic positions satisfactorily and considered that other nearby control which had been definitely identified and the photographic positions of which were satisfactorily determined would be adequate. The names of the stations are as follows:

PROMINENT TREE, 1938, r.1942
BARRETT, 1934, r.1942
NEW PINE, U.S.E., 1938, r.1942
MUSEUM, U. S. E., 1938, r.1942
SCOTLAND, U.S.E., 1938, r.1942
BRAND, 1938, r.1942
SANDY POINT, U.S.E., 1938, r.1942
SLOOP, 1910, 1932, r.1942
SLOOP, U.S.E.D., 1932, r.1942
POTTERY, 1910, r.1942

The identification of the station marks and intersection stations was adequate. However, it is believed that in a few instances, the "Field Inspection Points" (F.I.P.'s) were erroneously identified, and it so happened that such points were generally in areas where either the number of control stations was insufficient or the pricking of the photographic positions of the triangulation stations was doubtful. Some of the images of the "Field Inspection Points," as selected and identified by the Field Inspection Party, were only definable on one or two photographs. In general, these points were trees along the shore line, stretches of which had a dense growth of vegetation, and it is therefore possible that the pricking of their images on the photographs was very doubtful. Mention was made in the season's Field Inspection Report of 1942 by Lieut. Ernest B. Lewey, for the James River area, about the difficulty encountered because of dense vegetation, in selecting hydrographic signals (trees) along the shore line, and pricking their images on the field photographs. He believed that the images of many of the signals could not be definitely pricked on more than one photograph. Therefore, it was assumed by this compilation office that the same difficulty was encountered in selecting and identifying trees for "Field Inspection Points" along the shore line.

Within the combined area of the five surveys there was an abundance of control. However, it was poorly distributed in so far as its use in laying radial plots from aerial photographs was concerned. Most of the control was established along both shores of the James River. There was an insufficient number of control stations in the interior.

Along the chamber junctions, other than the center chambers, of many of the photographs; either a double exposed or unexposed strip was present. This condition which was due to difficulties encountered with the transforming printer, was a topic of discussion during a visit to this Compilation Office by Commander O. S. Reading in September, 1943. The strips just mentioned, ^{generally} formed a very slim triangle, the vertex of which was at the corner junction of the center chambers and side chambers, or wings, and the base of the triangle, which was approximately 0.5 to 0.8mm. in length, coincided with the outer edges of the exposed photographs. It is also believed that there was distortion in the photographic paper.

When the first combined plot was laid, no corrections were made for the displacement of radials due to the above mentioned distortions. However, when additional plots were laid, celluloid templates which were traced from the master template (metal) furnished by the Washington Office, were used to correct the displacement of radials due to the distortions.

The following paragraphs contain comments and methods of treatment of triangulation stations and "Field Inspection Points," the photographic positions of which required special investigation while the plots were being laid.

F. I. P. "HOM", patch of grass, (At triangulation station HOMINY, 1938, r.1942).

The image of this "Field Inspection Point" was clearly definable on only one photograph; on others it was questionable. The point selected by the Field Inspection Party was probably the best one available. It was held to within 0.3mm. in the radial plots. Since there were other triangulation stations in the vicinity, the images of which were clearly definable on a sufficient number of photographs, the furnished Field Inspection data could have been conveniently omitted.

F. I. P. "LARD", tree, (At triangulation station DILLARD 2, U.S.E., 1910, 1938, r.1942).

The "Field Inspection Point" could not be held to within 6.0 mm. in the radial plots. It was necessary to disregard the photographic position (image) as pricked by the Field Inspection Party, and another image of a tree, which was thought to be the point, was pricked on the office photographs by this Compilation Office. The new photographic position was held to satisfactorily. However, the image of this newly selected tree was clearly definable on only two photographs; on others it was questionable.

F. I. P. "TIM", cypress on water line (At triangulation station MUD, 1938, r.1942).

The radial plots indicated that the geographic position of this "Field Inspection Point", as computed from the furnished Field Inspection data, was offshore from the water line. This was in disagreement with the notes of the Field Inspection Party. After investigation, it appeared that the angle which was shown on the field sketches as turned from the line MUD-JAMESTOWN MONUMENT in a clockwise direction to F. I. P. "TIM", should have been shown as being turned in a counter-clockwise direction. The geographic position of the point was recomputed, using the same measured distance furnished by the Field Inspection Party from triangulation station "MUD" to the point, the same magnitude of the angle, but with the direction of the angle reversed. The position was replotted and satisfactory results were obtained.

F. I. P. "HIC", tree (At triangulation station NEW CHICK, U.S.E., 1938, r.1942).

The image of the "Field Inspection Point" was clearly definable on only two photographs; on others it was questionable because of blurred photography. It could not be held to within less than 0.5mm. in the radial plots.

ROAD NORTHWEST OF TWO MAIL BOXES, r.1942 (U.S. Geological Traverse Station).

This station was not clearly definable on any of the photographs, and therefore was not used to control the radial plots. The Field Inspection Party recommended caution in the use of this station.

T. T. 4 W O, 1935, r.1942 (U.S. Geological Primary Traverse Station).

This station was not recommended for use to control the plots. The Field Inspection Party was very doubtful about the photographic position.

MARKLES STORE, CROSSROADS AT, r.1942 (U. S. Geological Traverse Station).

This station could not be held to within less than 0.5mm.in the radial plots. The pricked photographic position on the majority of the photographs was questionable, because of relief displacement of trees surrounding the crossroads.

FOB, 1938, r.1942 (U. S. Coast & Geodetic Survey triangulation station).

This station was held to within 0.3mm.in the radial plots. The images of reference points which were pricked on the field photographs and used in determining the photographic position of the station, were not clearly definable on more than one photograph. On all others, the pricking was doubtful.

F. I. P. "CYP", cypress bush (At triangulation station CYPRESS, 1938, r.1942).

This "Field Inspection Point" could not be held to within less than 4.0 to 5.0mm.in the radial plots. However, an attempt was made to prick the triangulation station "CYPRESS", direct, from the furnished description. Satisfactory results were then obtained.

control

All other horizontal/stations not mentioned in the preceeding paragraphs were held to 100 per cent or within 0.2mm.in the plots.

A bulge in each celluloid projection sheet for the areas of the five surveys could not be eliminated. When it was smoothed out in one direction, it returned in another. The probable maximum displacement in the positions of secondary points, because of this bulge, is believed to be approximately 0.3mm.

The projection sheets could not be joined together 100 per cent along their respective junctions. The arcs of parallels (junctions) would not coincide where the projections were constructed on the same central meridian. There was also a disagreement of approximately 1.0mm (along their junctions) in an east and west direction of those projection sheets which were constructed on the same central meridian. When the sheets were joined together by matching corresponding grid lines, very few of the projection lines coincided, and vice versa. The grid lines on the base sheets were in excellent agreement with those on the projection sheets.

The difficulty encountered in joining the sheets together at their junctions, could be caused by the bulge previously mentioned, by unequal contraction and expansion of the celluloid, by stretching of the celluloid beyond its elastic limits, because of body weight of persons working on plots (very possible), or by errors in drawing projection and grid lines.

In general, the flight lines were held to satisfactorily.

The positions of all the photograph centers and secondary points were determined by averaging the positions of each as obtained from all of the plots laid.

Satisfactory junctions were made with the positions of common secondary points previously established by radial plots for the areas of Surveys Nos. T-8070 and T-8071.

No appreciable tilt was apparent in any of the photographs.

The averaged positions of the secondary points and photograph centers are believed to be within a relative accuracy of 1.0mm except those which are in the area between latitudes $37^{\circ} 17'$ and $37^{\circ} 18' 45''$ and longitudes $76^{\circ} 51'$ and $76^{\circ} 56'$. In this area (Chickahominy River) the relative accuracy is believed to be within 1.0 to 1.5mm.

REMARKS

At least one control station was needed which could be definitely identified on two or more photographs along the northern limits of Survey No. T-8075. At least one control station was needed which could be definitely identified on two or more photographs in the central section of Survey No. T-8079. At least one control station was needed which could be definitely identified on two or more photographs in the southwest section of the area of Survey No. T-8077.

The reasons the above mentioned additional control was believed to be necessary were that the transfer of the photograph centers was difficult and consequently doubtful, in the weakly controlled areas, that there was distortion of the photographic paper, and that there were errors in printing the positives.

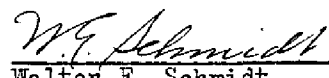
The corners, chamber junctions, and fiducial or collimating marks, as traced upon celluloid sheeting from the master template (metal) were in disagreement when the celluloid template so traced was revolved about the center of the master template and turned thru an angle of 90 degrees. It is the opinion of the undersigned that the celluloid templates which were traced from the master template and which were used to correct the displacement of radials due to the previously mentioned distortions, were faulty.

Photographs which have a dull finish are much more convenient to work upon than those which have a glossy finish.

CONCLUSIONS

It is believed that all conditions previously discussed, were treated in the best known possible manner, and the results obtained, although not entirely satisfactory, should be accepted until conclusive evidence has been produced by a future Field Party, or others, that the accuracy of the positions of radial points and details of importance shown on the Map Drawings, compiled at this time for the areas of Surveys Nos. T-8075 to T-8079 inclusive, is not within the limits of the allowable error for Coastal Survey maps.

Respectfully submitted,



Walter E. Schmidt
Asst. Photogrammetric Engineer

26 CONTROL:

The control shown within and just outside the detail limits of this Map Drawing consists of thirty-three (33) U. S. Coast & Geodetic Survey Triangulation Stations, and six (6) U. S. Engineers Triangulation Stations. The positions of the U. S. Engineers Stations were redetermined by the U. S. Coast & Geodetic Survey, and shall therefore be considered stations of this Bureau insofar as this report is concerned. "Field Inspection Points" (F.I.P.'s) have been substituted for fifteen of the triangulation stations. The positions of all the stations and F.I.P.'s were either plotted directly on this Map Drawing from geographic coordinates, or transferred from adjoining map drawings upon which they had been previously plotted. The transfer was accomplished by the method of matching common projection lines and pricking through. The three (3) mm. black acid ink equilateral triangles indicate the plotted positions of the station, and the red acid ink triangles, the transferred positions. The small acid ink squares indicate the positions of the "Field Inspection Points", except those points recommended as temporary hydrographic stations or recoverable topographic stations by the Field Inspection Party. The latter have been shown with black acid ink circles two and one-half ($2\frac{1}{2}$) mm. in diameter.

The following twenty-five (25) U. S. Coast & Geodetic Survey Triangulation Stations fall within the detail limits of this Map Drawing:

- ✓CLAREMONT, 1932, r.1942
- ✓BOILER OF WRECK, 1938, r.1942
- ✓CHIPPOKES CREEK WHARF FLAGPOLE, 1938, r.1942
- ✓RAP (U.S.E.), 1938, r.1942 (F.I.P. "Par")
- *INSTITUTE, 1938, r.1942 (Landmark) ch. let. No 86 (1944)
- ✓RED ROOFED HOUSE, CHIMNEY ON RIDGE POLE, 1938, r.1942
- ✓DANCING PAVILLION, EAST GABLE, 1938, r.1942
- * * SLOOP, 1910, 1932, r.1942 (also Tidal Bench Mark 2)
- ✓WAREHOUSE, 1938, r.1942
- ✓SLOOP (U.S.E.D.), 1932, r.1942
- ✓WAKEFIELD, 1938, r.1942 (F.I.P. "Wak")
- ✓RANGE, 1910, 1938, r.1942 (F.I.P. "Ran")
- ✓RED ROOFED HOUSE, EAST GABLE, 1938, r.1942 (LANDMARK)
- ✓DANCING POINT SHOAL CHANNEL FRONT RANGE LIGHT, 1938, r.1942 (LANDMARK)
- ✓UTILITY, 1938, r.1942 (F.I.P. "Fen")
- ✓WHITE HOUSE, WEST CHIMNEY OF FOUR, 1938, r.1942 (LANDMARK)
- ✓HORSE, 1938, r.1942 (F.I.P. "Colt")
- ✓DANCING POINT (U.S.E.), 1938, r.1942
- ✓LONE TREE, 1938, r.1942
- ✓STEM OF WRECK, 1938, r.1942
- ✓SAND, 1938, r.1942 (F.I.P. "San")
- ✓SANDY POINT (U.S.E.), 1938, r.1942
- ✓SHORT, 1938, r.1942 (F.I.P. "Shot")
- ✓WEEK ECC. 1938, (No recovery in 1942. Probably destroyed. Station was a wooden scaffold in water.)
- ✓WEEK, 1938, r.1942 (F.I.P. "We")

* * Two Tidal Bench Marks appear on the map manuscript:

TBM No 1 (8.33')

TBM No 2 (3.51')

26 CONTROL: (cont'd)

*Station INSTITUTE, 1938, r.1942 shown with a dashed triangle. Station destroyed. Point as identified by Field Inspection Party, held in plot. +

The following fourteen (14) U. S. Coast & Geodetic Survey Triangulation Stations fall just outside the detail limits of this Map Drawing:

BRAND, 1938, r.1942
BRANDON BOATHOUSE, FLAGPOLE, 1938, r.1942
BRANDON WHARF LIGHT, 1938, r.1942
WILK, ECC., 1938, (No recovery in 1942.)
WILK, 1938, r.1942 (F.I.P. "Lum")
NUB, 1938, r.1942 (F.I.P. "Bun")
GREEN ROOFED HOUSE, NORTH CHIMNEY, 1938, r.1942
THORN, 1938, r.1942 (F.I.P. "Orn")
BARRETT, 1934, r.1942
LARGE GRAY BARN, SOUTH GABLE, 1938, r.1942
WHARF, 1938, r.1942 (F.I.P. "Nak")
HOMINY, 1938, r.1942 (F.I.P. "Hom")
NEW CHICK (U.S.E.), 1938, r.1942 (F.I.P. "Hic")
DILLARD 2 (U.S.E.), 1910, 1938, r.1942 (F.I.P. "Lard")

27 RADIAL PLOT:

(N.B.) Refer to the report on the combined radial plot for the areas of Surveys Nos. T-8075 - T-8079 inclusive, ~~submitted herein as an appendix.~~ *attached to this Descriptive Report.*

28 DETAILING:

The shore line and immediate adjacent culture have been detailed, classified, and shown on this Map Drawing in accordance with the original and supplemental instructions set forth in the Director's letters dated March 26, July 15, September 30, and November 14, 1942, pertaining to Project No. CS-283 with exceptions which are to be discussed in other paragraphs of this report.

All detail has been shown with the recommended conventional symbols and any deviations therefrom have been shown by descriptive notes lettered on this Map Drawing.

The main body of water shown on this Map Drawing is a portion of the James River. However, portions of the Chickahominy River, Upper Chipokes Creek, all of Sunken Marsh Creek, and other small tributaries have also been shown. In general, both shores of the James River consist of narrow sandy beaches along which are dirt bluffs, ranging in height from five (5) to one hundred (100) feet. The more prominent bluffs are along

+ *Temperance, Industrial, & Collegiate Institute, central of three ornaments on shoreward side. Broken off (1941). Though the building is abandoned it is prominent and the station recoverable. The triangulation station was deleted from the map manuscript, a topographic symbol added and a form 524 submitted*

28 DETAILING: (cont'd)

the south shore. The shores of all other rivers, creeks, etc., shown on this Map Drawing, consist mainly of low areas grown with marsh grass.

The number of photographs was not sufficient for satisfactory office detailing of topographic and hydrographic features in the southeastern portion of this Map Drawing. The positions of the majority of minor detail points determined by radial intersection in the area just mentioned are believed to be relatively weak, because they were determined either by the intersection of two radials or by the intersection of two or more radials, the angular deviations of which were very small. The positions of such points and any other minor detail points considered relatively weak, have been shown with green ink circles on the glossy side of this Map Drawing, and those of points considered relatively strong have been shown with purple or blue ink circles.

Blurred photography, insufficient side lap of adjoining flights, dense vegetation, and deep shadows made it difficult in some areas of this Map Drawing to select minor detail points, and to determine the photographic position of the Mean High-Water Line, and outer limits of marsh areas bordering the Mean High-Water Line.

That part of the field inspection data pertaining to the classification of topographic and hydrographic features was adequate except for roads and drainage immediately adjacent to the shore line. The roads were classified by the Field Inspection Party in accordance with the usual instructions generally issued for Coastal Surveys previous to the year 1942. The Field Inspection Party failed to comply with instructions set forth in the first paragraph (No. 33) under the caption "Road Classification" in the Director's letter dated March 26, 1942, pertaining to Project No. CS-283. The classification of roads shown on this Map Drawing is, therefore, in accordance with the field inspection data and not in accordance with written instructions. The location of most of the drainage was at first outlined on the photographs by means of stereoscopic examination and then detailed on this Map Drawing.

The field inspection data pertaining to the area known as Sunken Marsh Creek were not complete. It was necessary, therefore, for this Compilation Office to detail and symbolize the features of this area from office interpretation of the photographs.

The locations and heights of all bluffs along the shore line, shown on this Map Drawing, are in accordance with the field inspection data.

It is believed that all houses, roads, and other details of importance immediately adjacent to the shore line, have been shown unless such features were not visible on the photographs because of dense vegetation.

Since the scales of the photographs and this Map Drawing were in good agreement, it was not necessary to use the vertical projector.

30 MEAN HIGH-WATER LINE:

The Mean High-Water Line (firm ground) has been detailed on this Map Drawing in accordance with the field inspection data, and has been shown with a full, heavy-weight black acid ink line, the center of which is believed to be the true position. The outer limits of vegetation (marsh) bordering the Mean High-Water Line have been shown by a full, light-weight black acid ink line, which is not considered to be the Mean High-Water Line, but only an indication of the outer limits of vegetation visible on the photographs which were taken at approximately the time of low-water.

31 LOW-WATER AND SHOAL LINES:

The approximate outer limits of a shoal area bordering the Mean High-Water Line have been shown with a dashed light-weight black acid ink line and are in accordance with the office interpretation of the photographs. The note "Shoal" has been shown on this Map Drawing to call attention to the area involved. Such approximate limits are for the use of hydrographic parties only and should not be accepted as the low-water line.

32 DETAILS OFFSHORE FROM THE HIGH-WATER LINE:

The position of a red nun buoy located at the mouth of Upper Chippokes Creek was radially plotted and shown on this Map Drawing with the conventional symbol. ✓

The hull of a wreck located approximately at the mouth of Upper Chippokes Creek and offshore from Chippokes^{KCS} Point in a northeasterly direction, was visible on the photographs. It has been detailed in accordance with office interpretation, and shown on this Map Drawing with a dotted black acid ink line. The boiler of the wreck is the triangulation station "BOILER OF WRECK". Since preference was given the triangulation symbol, the conventional wreck symbol could not be shown. ✓

There is a wreck located between Sandy and Dancing Points, just offshore from the north shore of James River. The only part of this wreck visible on the photographs was the stem which is the triangulation station "STEM OF WRECK". ✓

There are two wrecks northwest of Claremont Wharf. The more northwesterly one was not visible on the photographs; therefore, the approximate limits of the area in which it is situated were detailed on this Map Drawing and shown with a dashed light-weight black acid ink line in accordance with the field inspection data. The other wreck southeast of the one just mentioned, was visible on the photographs, and its position as detailed and symbolized on the Map Drawing is believed to be within the limits of satisfactory accuracy. ✓

32 DETAILS OFFSHORE FROM THE HIGH-WATER LINE: (cont'd)

ch 530
WAB
7/12/44

The wreck alongside Sandy Point Wharf was visible on the photographs and its position as detailed and symbolized on this Map Drawing is also believed to be within the limits of satisfactory accuracy. The note "Wreck" has been shown on this Map Drawing calling attention to all of the above-mentioned wrecks.

Fish traps, where visible on the photographs, have been detailed and shown on this Map Drawing with the conventional symbol accompanied by the note "Fish trap".

33 WHARVES AND SHORE LINE STRUCTURES:

It is believed that all piers, wharves, fences, piling, etc., existing as of the date of the photographs in the area of Survey No. T-8078 along the shore line, except those features noted by the Field Inspection Party as being destroyed, have been detailed and shown on this Map Drawing with accompanying descriptive notes.

34 LANDMARKS AND AIDS TO NAVIGATION:

The positions of two (2) landmarks have been determined by radial intersection, and have been shown on this Map Drawing with black acid ink circles, 2 $\frac{1}{2}$ mm. in diameter. Form No. 567 has been submitted for the two following landmarks:

- Tank, horizontal, E. end (Recoverable Topographic Station)
- Dancing Point Shoal Channel, Rear Range Light (Recoverable Topographic Station)

Chart Letter
No. 538 (1946)
Filed in
Div. of Charts

35 HYDROGRAPHIC CONTROL:

The positions of forty-one (41) temporary hydrographic stations and ten (10) Recoverable Topographic Stations, one of which is a Tidal Bench Mark, have been radially plotted and shown on this Map Drawing with black acid ink circles, 2 $\frac{1}{2}$ mm. in diameter. The descriptions of all the temporary hydrographic stations, and names and descriptions of the Recoverable Topographic Stations have been shown on this Map Drawing. The names of the Recoverable Topographic Stations were selected by this Compilation Office from descriptions furnished by the Field Inspection Party.

Form No. 524 has been submitted for the following ten (10) Recoverable Topographic Stations: *Filed in Div. of Photogrammetry General Files.*

** Listed and appended hereto.*

35 HYDROGRAPHIC CONTROL:

No. 334 Cypress, outermost
No. 352 Cypress, in water
No. 710 Cypress, tree
Dancing Point Shoal Channel, Rear Range Light (Landmark)
No. 722 Tank, horizontal, E. end (Landmark)
No. 358 Cypress, outer
No. 357 Pole, outer power line
No. 717 Cypress, bushy
No. 331 Poplar tree, on sand spot
Tidal Bench Mark No. 1 No. 1
Institute added during review (see + 26)

37 JUNCTIONS:

There is no contemporary survey to the south; therefore, no junction is to be considered.

Junction of shore line and immediate adjacent culture was made with Map Drawing, Survey No. T-8079 to the north, and is in excellent agreement.

Map Drawings, Surveys Nos. T-8085 and T-8076 are to the west and east respectively. Since the compilation of these two Map Drawings has not been completed as of the date of this report, junctions will be made at a later date. *Junctions completed and checked.*

38 RECOMMENDATIONS FOR FUTURE SURVEYS:

The planimetry shown on this Map Drawing is believed to be complete in all details of importance for charting, and no other surveys are believed to be necessary.

The error in the positions of radial points and details of importance along, and immediately adjacent to, the shore line is believed to be within the limits of satisfactory accuracy, except in the southeast portion of this Map Drawing. In this particular portion, the error may be as much as 1.5mm.

39 CABLE CROSSING AREAS:

The southeast portion of a cable crossing in the vicinity of the mouth of Upper Chipponkes Creek has been shown with a dashed red acid ink line on this Map Drawing to indicate a submerged cable. The northwest portion of the cable crossing is believed to be overhead, as power line poles could be seen on the photographs. This portion has been shown on this Map Drawing with the conventional power line symbol. The field inspection data were incomplete concerning this cable crossing, and this Compilation Office is not certain as to its proper delineation. Addition-

39 CABLE CROSSING AREAS: (cont'd)

all field inspection data have been requested. In the event that such data, when furnished, prove that the cable crossing has been incorrectly symbolized, all necessary information will be submitted to the Washington Office so that corrections may be made on this Map Drawing.

40 GEOGRAPHIC NAMES:

Only a partial investigation of geographic names in the James River area was made by the 1942 Field Inspection Party. The data obtained from this investigation were noted in the "Coast Pilot" and on the field inspection photographs.

The geographic names shown on this Map Drawing are in accordance with the field inspection data except in areas not included in the investigation. In such areas, the names shown have been taken from the best known sources available for use by this Compilation Office.

The disputed and undisputed geographic names have been alphabetically compiled in two lists and are submitted herein. *List of approved geographic names attached.*

44 COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES:

Surry Quadrangle (15'), U.S.G.S.; 1919 edition; scale 1:62,500.

Because of the difference in scale between this Map Drawing and the above-mentioned quadrangle, small planimetric detail could not be readily compared. In general, however, the planimetry common to both is in good agreement with the exceptions that Burdicks Wharf is now in ruins, and that a private wooden wharf approximately three hundred (300) meters to the west, as shown on this Map Drawing, does not appear on the quadrangle.

Other wharves, and a railroad, to be discussed in the following paragraph, also pertain to the Surry Quadrangle.

45 COMPARISON WITH NAUTICAL CHARTS:

Chart No. 530, published September 1940, corrected to November 15, 1941, scale 1:40,000.

Because of scale difference between this Map Drawing and Chart No. 530, small planimetric detail could not be readily compared. In general, planimetry common to both is in good agreement with the exception that two of the four wharves shown in the vicinity of Claremont on the Chart, are now in ruins. A railroad in the immediate vicinity of these wharves, as shown on the Chart, has not been shown on this Map Drawing because it was not visible on the photographs, and because no field inspection data were furnished. ✓

45 COMPARISON WITH NAUTICAL CHARTS: (cont'd)

The wreck offshore from Chippeak Point has been shown on the Chart with a symbol indicating that the wreck has less than ten (10) fathoms of water over it. This is believed to be in error because the outline of the wreck was visible on the photographs, which were taken at approximately the time of low-water. The outline of this wreck has been shown with a dotted black acid ink line on this Map Drawing. The conventional symbol could not be used to show the wreck on this Map Drawing because the triangulation symbol used to show the triangulation station "BOILER OF WRECK" was given preference. (N.B.) Refer to Nautical Chart Symbols and Abbreviations. It is believed that the symbol shown on the Chart is obsolete. (N.B.) Refer to Topographic Manual, Special Publication No. 144. *Print of 5/6/42 is correctly symbolized W.A.B. 7/12/44*

The most northwesterly offshore wreck from Claremont Wharf as shown on the Chart could not be seen on the photographs. The approximate limits of the area in which the wreck is believed to be situated have been detailed in accordance with the field inspection data, and shown on this Map Drawing with a light-weight dashed black acid ink line.

Another wreck, approximately four hundred (400) meters south of the one just mentioned, has been shown on this Map Drawing. This wreck does not appear on the Chart.

A wreck shown on this Map Drawing alongside of Sandy Point Wharf, does not appear on the Chart.

A wreck which appears on the Chart between Dancing and Sandy Points and just south of the north shore of James River, has not been shown on this Map Drawing because it was not visible on the photographs, and no approximate outline of it was furnished by the Field Inspection Party. The stem of the wreck, however, is the triangulation station "STEM OF WRECK".

No houses just inshore from the Mean High-Water Line appear on the Chart. Numerous houses, however, have been shown on this Map Drawing.

Sunken Marsh Creek is shown as a marsh on the Chart. It has been detailed on this Map Drawing as an open body of water in which numerous cypress trees, grass in water areas, and marsh areas have been shown.

Chart No. 78 published March 1930, reissued May 1938, scale unknown.

Because of large differences in scale between this Map Drawing and the above mentioned Chart, planimetry could not be readily compared. In general, however, planimetry common to both is in agreement.

Respectfully submitted,
November 22, 1943

Donald M. Brant

Donald M. Brant
Sr. Engineering Aid

Compilation & Descriptive
Report Reviewed by:

Michael G. Misulia

Michael G. Misulia
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Supervised by:

Walter E. Schmidt

Walter E. Schmidt
Asst. Photogrammetric Eng.

Approved & Forwarded
November 25, 1943

Fred. L. Peacock

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

T-8078
LIST OF GEOGRAPHIC NAMES

Undisputed

Burdicks Wharf	Sandy Point Wharf
Chickahominy River	Sloop Point
Dancing Point	Sunken Marsh Creek
During Point	Telluride School
James River	Tettington (village)
Sandy Point	

Disputed

Upper Chippokes Creek (by Field Inspection Party)	Chippoak Creek, Upper Chippokes Creek
Chippoak Point	Chippokes Point
Claremont Wharf	Claremont Landing

*See approved list following
this page.*

GEOGRAPHIC NAMES

Survey No. T-8078

Name on Survey	A	B	C	D	E	F	G	H	K	
•Burdicks Wharf (ruins)										1
•Chickhominy River										2
•Chippokes Creek Wharf										3
* •Chippokes Point										4
•Claremont										5
•Claremont Wharf										6
•Dancing Point										7
•During Point										
* •James River										
•Sandy Point										10
•Sandy Point Wharf										11
•Sloop Point										12
•Sunken Marsh Creek										13
•Tettington										14
* •Tomahund Creek										15
* •Upper Chippokes Creek										16
* Virginia										17
										18
Telluride School										19
(This school appears on Surry quadrangle, but the field										20
inspector did not mention this building as a school, but as										21
triangulation station--Red roofed house, chimney on ridge pole,										22
1938, r. 1942)										23
										24
										25
										26
										27

M 234

JAMES RIVER, VIRGINIA
Chickahominy River - Upper Chippoke Creek
PART OF PROJECT No. CS-283

List of names, numbers, and descriptions of the Recoverable Topographic Stations, and the numbers and descriptions of the temporary hydrographic stations appearing on Map Drawing Survey No. T-8078.

Number of temporary hydrographic stations	41
Number of Recoverable Topographic Stations	7
Number of Landmarks	<u>2</u> + 1
Total Number of Stations	49 51

Listed by:

Checked by:

Donald M. Brandt

Harry R. Rudolph

- No.
- 327 Blaze on cypress tree in water - a small landing is built around the tree. (Also F.I.P. "Ran")
 - 328 Blaze on small locust tree at W.L. on small rounding sand point. Under prominent dirt bluff.
 - 329 Blaze on cypress in clump of cypress trees at W.L.
 - 330 Blaze on cypress at W.L. on small rounding sand point.
 - 331 Small poplar tree on sand spot in front of entrance of small stream. Blazed. (Recoverable Topographic Station)
 - 332 Small deciduous bush on strip of sand beach about 25 meters West of inner end of fish trap.
 - 333 Tall, bushy top tree in center of gully. Very large bushy top of tree just to East.
 - 334 Blaze of outtermost of cypress trees growing in water. Just West of inner end of fish trap. (Recoverable Topographic Station)
 - 337 Small bush on beach about 75 meters East of end of rod. Marked by cloth.
 - 338 Offshore gable largest house on beach.
 - 339 Chimney of offshore gable white house in clearing on bluff.
 - 340 Chimney on Southeast gable large brick house. This is the Southeasterly of 5 chimneys on the house.
 - 341 Twin cypress trees on W.L. about 40 meters Northwest of inner end of wharf. (Also "F.I.P. Wak")
 - 342 Flagpole on outter end of wharf.
 - 343 Offshore gable tin roof shack in trees on beach.
 - 344 Chimney center. Square white house brown roof in trees.
 - 345 Chimney center. Large white house on hill in trees.
 - 346 Outter gable of large old square house on bluff.

- No.
- 347 Blaze on maple on small sand point.
 - 348 Blaze on cypress in water. Willow lying in water here.
 - 349 Blaze on large cypress on point.
 - 350 Blaze on cypress in water outermost of several.
 - 351 Outer end of small landing.
 - 352 Blaze on cypress in water. Northerly of two.
(Recoverable Topographic Station.)
 - 354 Large cypress tree on East side of stream. Entering Chippokes Creek. To East is clump of trees.
 - 355 Blaze on Southerly of cypress trees in water off point.
 - 356 Blaze on cypress at edge of water.
 - 357 Outer power line pole. Has cross poles on it.
(Recoverable Topographic Station)
 - 358 Blaze on outer cypress on point. About 150 meters South is a more prominent point. (Recoverable Topographic Station)
 - 706 Blaze on cypress at W.L. in small rounding bight.
 - 707 Triple cypress on point just off triangulation Horse.
 - 708 Blaze on large cypress about 10 meters offshore. There are two cypress trees to East and several to West.
 - 709 Blaze on hollow cypress about 50 meters offshore. Branches growing out of same.
 - 710 Blaze on large cypress at water edge about 25 meters West of a fence extending into water.
(Recoverable Topographic Station)
 - 711 Cloth tied to cypress on W.L. of entrance of small stream.
 - 712 Fence post at W.L. Northeasterly of two wooden fences here.

- No.
- 713 Large cypress at W.L. about 100 meters south of another cypress which is near a patch of lilies.
 - 714 Tall twin cypress tree on Dancing point. Tallest tree here.
 - 715 Cypress trunk in water. There are a few limbs growing out of the trunk.
 - 716 Cypress in water about 15 meters offshore. Marked by cloth nailed to trunk.
 - 717 Blaze on flat-topped, bushy cypress at water level about 100 meters West of another cypress in water. *R. Tops*
 - 718 Tall bushy Silver maple tree on W.L.
 - 719 "F.I.P. San" cypress on beach about 125 meters Northwest of the end of the point.
 - 720 Center of Platform in water inside of several old piling.
 - 721 Blaze on cypress. Water about 10 meters from steep dirt bank.
 - 722 East end of horizontal gas tank resting on piling structure. (Landmark, New)
 - 723 Cedar on W.L. at inner end of the easterly of two wharf ruins.
 - 724 Blaze on small cypress at W.L. just a few meters West of inner end of fish trap.
 - 727 Southeast corner of remains of old wharf.

Tidal B.M. No.

Dancing Point Shoal Channel, R.R. Light

Institute (A deleted)

Recov. Tops

" " (Ldmk.)

" " "

Review Report T-8078
Shoreline Map
9 September 1948

28. Detailing.-Additional drainage was added to the map manuscript during review. The bluff crest at Upper Chippokes Creek was corrected. This brought it into agreement with both the quadrangle and the contours on nautical Chart No. 530.

An abandoned railroad, indicated by field inspection, was added to the manuscript.

At approximately $37^{\circ}12\frac{1}{4}'$ / $76^{\circ}54\frac{1}{2}'$ the field inspector indicated "power line along beach here", but gave no information about other parts of its route. This power line does not appear either on the quadrangle or the chart, so that there is no basis upon which to complete the line. It may be a part of the power line crossing Upper Chippokes Creek in the cable area.

42. Comparison with Contemporary Hydrographic Surveys.-

The latest hydrographic survey was made in 1910.

43. Comparison with Registered Topographic Surveys.-

T-1391a	1:20,000	1874-5 (with contours)
1391b	"	1875 "

Except for contours, T-8078 supersedes the former surveys, in their common areas, for charting purposes.

44. Comparison with Existing Quadrangles.-

USGS Survey 1:62,500 ed. 1919 rep. 1945

45. Comparison with Nautical Charts.-

530 1:40,000 ed. Sept. 1940 Rev. December 1946

North Shore James River:

1. A wreck recorded on the chart at Sandy Point is not on the map manuscript. No. field note indicated a wreck there.
2. Two marsh areas just north of Dancing Point are not on the chart.
3. Positions of shoreline with respect to the projection are not in agreement in many places.

South Shore James River.-

1. Various marshes in drainage areas are not on the map manuscript. The areas are so densely wooded that stereoscopic inspection does not reveal marsh or swamp conditions. The streams have been drawn in with a dashed line during review.
2. Bluff crest at Upper Chippokes Creek; See No. 28 above.

*These interior details
can be checked from T-8320
B.H.*

Reviewed by:

Lena T. Stevens
Lena T. Stevens

APPROVED:

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Chief, Review Section L.H.M.
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NAUTICAL CHARTS BRANCH

SURVEY NO. 8078

Record of Application to Charts

[illegible]

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.