Form 504
U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey  Planimetric Air Photographic (Shoreline)
Field No.  T-8081

LOCALITY
State  Virginia
General locality  Chickahominy River Chickahominy River from Diascund Creek (Beaverdam Creek) to Dockman Swamp.

1944
CHIEF OF PARTY
Fred. L. Peacock

LIBRARY & ARCHIVES
DATE
DATA RECORD
T-8081


Field Office: Air Photographic Party No. 2
Chief of Party: Fred. L. Peacock

Compilation Office: Baltimore Photogrammetric Office
Chief of Party: Fred. L. Peacock

Instructions dated (II III): Copy filed in descriptive
March 26, 1942 - July 15, 1942, Sept. 30, Report No. T-16 (VI)
1942, Nov. 14, 1942, and Nov. 24, 1942.

Completed survey received in office: 12-15-44

Reported to Nautical Chart Section: 12-16-44
Reviewed: 20 May 44 Applied to chart No. Date:
Redrafting Completed:

Registered: 5/47 Published:
Compilation Scale: 1:10,000 Published Scale:
Scale Factor (III): None

Geographic Datum (III): N.A. 1927 Datum Plane (III): Mean Sea Level
Reference Station (III): PALMER CHEY, 1934, r. 1943
Lat.: 37° 25' 14.383" (443.4m) Long.: 76° 58' 40.642" (997.3m) Adjusted
443.4 + 441.3 = Min.


X = Not Available
Y =

Military Grid Zone (VI)
PHOTOGRAPHS (III)

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Mean Range: 2.5'            Spring Range: 2.6'

Camera: (Kind or source) U.S.C. & G.S. nine lens Camera (focal length 8½")
All negatives are on file at the Washington Office.


Field Edit by:

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

Projection and Grids ruled by (III) W. T. - P. J. H. (Washington Office) date: 9-27-44
" " " " checked by: B. R. C. - J. T. (Washington Office) date: 9-28-44
Control plotted by: James L. Harris date: 9-30-44
Control checked by: Ruth E. Rudolph date: 10-2-44
Radial Plot by: J. E. Deal, Jr., & A. C. Hauck, Jr. date: 10-13-44
Detailed by: Raymond W. Spencer date: 10-14-44 to 12-9-44

Reviewed in compilation office by: J. E. Deal, Jr. date: 12-13 to 12-14-44.

Elevations on Field Edit Sheet checked by: date:
STATISTICS (III)

Land Area (Sq. Statute Miles); This Map Drawing includes shoreline and adjacent planimetric detail, only.

Shoreline (More than 200 meters to opposite shore); 24 Statute miles.

Shoreline (Less than 200 meters to opposite shore); 33 Statute miles.

Number of Recoverable Topographic Stations established; 12

Number of Temporary Hydrographic Stations located by radial plot; 80

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:

See:
Robert, Field Inspection of Air Photograph, James River and tributaries, Va.; Season 1943; Prog. 283-FL, Hanx
Chief of Party.
26 CONTROL:

This Map Drawing includes that portion of the shoreline and adjacent planimetry of the Chickahominy River and its tributaries falling between Diascund Creek (Beaverdam Creek) and Dockman Swamp.

The following horizontal control stations fall within the limits of the Map Drawing:

U. S. Coast and Geodetic Survey Triangulation Stations of at least 3rd Order Accuracy:

CYPRESS, 1934, r. 1943
PALMER GREY, 1934, r. 1943

U. S. Geological Survey Monumented Traverse Station:

RTS no. 53, 1916, r. 1943

U. S. Geological Survey Traverse Stations:
(Established in 1916, r. 1943)

WINSOR SHADES, IN FRONT OFFICE WINDOW OF DEPOT, WEST-BOUND TRACK
DIASCUND CREEK, CENTER OF RAILROAD BRIDGE 525 OVER WEST-BOUND TRACK

The following horizontal control stations fall just outside the limits of the Map Drawing:

U. S. Coast and Geodetic Survey Triangulation Station of at least 3rd Order Accuracy:

STEWART 1934, r. 1943

U. S. Geological Survey Monumented Traverse Station:

P.T.S. no. 54, 1916, r. 1943

U. S. Geological Survey Traverse Stations:
(Established 1916, r. 1943)

DIASCUND ROAD CROSSING JUST EAST OF DEPOT, WEST-BOUND TRACK
MILE POST NO. 60, WEST-BOUND TRACK

In addition, two U. S. Geological Survey Traverse Stations, which fall within the limits of the Map Drawing and which had been identified by the Field Inspection unit, could not be held during the running of the radial plot. They are:

WALKER, ROAD CROSSING AT DEPOT, WEST-BOUND TRACK, 1916, r. 1943
ROAD CROSSING, ABOUT 850 FEET WEST OF MILEPOST 57, WEST-BOUND TRACK, 1916, r. 1943.
CONTROL: (Continued)

Both of these stations are believed to have been incorrectly identified due to man-made changes occurring since they were established.

The radially plotted position of the field identified location of each of these stations is shown on the Map Drawing with a 2.5 m.m. black acid ink circle immediately adjacent to its corresponding listed U. S. Geological Survey geographic position.

All of the above-mentioned horizontal control stations, except the two which could not be held during the running of the radial plot, have been used for the establishment of photograph centers, secondary control points, and detail points.

RADIAL PLOT:

The radial plot for the Map Drawing is part of the combined Radial Plot for Surveys Nos. T-8073, T-8074, T-8080, T-8031, and T-8082, Project No. CS-283, the Descriptive Report for which was submitted to the Washington Office on October 26, 1944.

DETAILING:

The shoreline and immediate adjacent planimetric detail of the parts of the Chickahominy River and its tributaries, shown on this Map Drawing have been detailed in accordance with the original instructions, dated March 26, 1942, and the Director's letters, dated July 15, 1942, and September 30, 1942, pertaining to Project No. CS-283.

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, after being verified by careful stereoscopic examination, were transferred to the office photographs. These data were then detailed on the Map Drawing.

Portions of the shoreline along the Chickahominy River and its tributaries, which could not be definitely identified by the Field Inspection Unit, were shown on the field inspection photographs by dashed red lines for Mean High-Water Line and by dashed green lines for the outer limits of marsh. The portions of these undetermined sections of shoreline, which could be accurately determined by the compiler through careful stereoscopic examination of the photographs, have been shown on the Map Drawing with the usual full, acid ink line. The portions of these undetermined sections of shoreline which could not be accurately determined by stereoscopic examination of the photographs have been shown on the Map.
DETAILING: (Continued)

Drawing with a dashed acid ink line.

All drainage within the limits of the Map Drawing, flowing into the Chickahominy River and its tributaries, has been detailed to the extent to which they could be seen on the photographs. In many cases this was beyond the limits of field inspection. The stereoscope was used to aid in the delineation of these areas which were not field inspected. In instances where the drainage was obscured by overhanging trees or brush, and it could not be accurately determined by stereoscopic examination of the photographs, this indefinite drainage was shown on the Map Drawing with a light-weight, dashed acid ink line.

The Chickahominy River Dam and earth levee at Hock-a-Hock, Virginia, which had not been built at the time the photographs were taken, was detailed on the Map Drawing from data furnished by the Field Inspection Unit. This data consists of: (1) a green line shown on Field Photograph No. 7811 indicating the location of the dam and levee, and (2) a blue print of the "Federal Works Agency Docket No. 44-907 Chickahominy River Dam, Plan and Sections, Drawing No. 119c-2" dated November 1942.

In an attempt to verify the location of the dam and levee, it was found that the location as shown on the "Location Plan" of the above-mentioned blue print, was not in agreement with the location as indicated on Field Inspection Photograph No. 7811.

As roads were not classified by the Field Inspection unit, they were detailed according to the Compiler's interpretation of the nine lens photographs after comparison with available topographic quadrangles.

Tree areas not classified in the field were interpreted by the compiler from the nine lens photographs. These unclassified areas have been detailed and shown with conventional symbols.

All buildings immediately adjacent to the shoreline have been detailed.

The number of nine lens photographs covering the area of this Survey was sufficient to adequately compile this Map Drawing. Their scale was in fair agreement with the scale of the Map Drawing Projection. The spacing of the photographs in each flight strip provided satisfactory center chamber coverage for the area of this Map Drawing.

SUPPLEMENTAL DATA:

The Field inspection Unit furnished the Compilation Office a blue print titled as follows:
SUPPLEMENTAL DATA: (Continued)

FEDERAL WORKS AGENCY
DOCKET No. 44-907
CHICKAHOMINY RIVER DAM
PLAN AND SECTIONS

NEWSOM and ALDRICH
ENGINEER - CONSULTANTS
NEW YORK - WILLIAMSBURG
Nov. 1942 Dwg. No. 119C-3

MEAN HIGH-WATER LINE:

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

(Also see paragraphs 3 and 4 of Section No. 28, Detailing, of this Descriptive Report).

LOW-WATER AND SHOAL LINES:

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

Shoal lines were identified by the Field Inspection Unit and have been shown on the Map Drawing by a light-weight, dashed, black acid ink line, with the word "shoal" lettered inside the area.

DETAILS OFFSHORE FROM THE HIGH-WATER LINE:

Piling areas, stake areas, duck blinds, sunken barges, foul areas, snags, and logs or trees in water were identified by the Field Inspection Unit and have been detailed accordingly. Pertinent notes are shown near each of these offshore details.

WHARVES AND SHORELINE STRUCTURES:

Numerous piers, wharves, catwalks, retaining walls, mooring posts, houseboats, boat sheds, and boat houses were identified by the Field Inspection Unit on the field photographs. These were detailed on the Map Drawing, accompanied by appropriate notes. Other shoreline
structures, in areas where there was no field inspection data, were interpreted according to stereoscopic examination of the photographs and noted accordingly.

34 LANDMARKS AND AIDS TO NAVIGATION:

One object, namely: "NORTH CHIMNEY, TWO STORY UNPAINTED HOUSE" (Recoverable Topographic Station No. 151) was recommended for charting as a Landmark by the field inspection unit, and is shown on the Map Drawing with a 2.5 m.m. black acid ink circle. Form No. 567 is being submitted for this recommended Landmark.

No fixed aids to navigation were indicated by the field inspection data, nor were any visible on the nine lens photographs. None are shown on Chart No. 530 in the area of this Map Drawing.

35 HYDROGRAPHIC CONTROL:

The Compilation Office was furnished the identification of eighty (80) temporary hydrographic stations and twelve (12) recoverable topographic stations. These were identified on the 1:10,000 field photographs by number and their descriptions listed in field sketch books (Form No. 274) by corresponding numbers. These stations were transferred to the office photographs, and radially plotted on the Map Drawing. These stations are shown on the Map Drawing by a 2.5 m.m. black acid ink circle with their respective numbers noted nearby.

The descriptions of the twelve (12) Recoverable Topographic Stations have been lettered directly on the Map Drawing near their corresponding numbers. Lettered in the right hand margin of the Map Drawing is a list showing the numbers and descriptions of both the eighty (80) temporary hydrographic stations and the twelve (12) Recoverable Topographic Stations.

Form No. 524 is being submitted for the twelve (12) Recoverable Topographic Stations. They are:

N. GABLE UNPAINTED TWO STORY HOUSE
CAGE ON POLE, N.E. CORNER BOAT SHED
N. CHIMNEY TWO STORY UNPAINTED HOUSE
LARGE BUSHY CYPRESS (45')
N.W. GABLE GALVANIZED BOAT HOUSE
N.W. CORNER OF PIER
E. GABLE OF LARGE UNPAINTED BOAT SHED
CHIMNEY ON S.E. END TWO STORY HOUSE
BRICK CHIMNEY, W. END UNPAINTED HOUSE
TALL CYPRESS TREE BETWEEN STUMPS
S. GABLE BOAT HOUSE
S. CHIMNEY WHITE HOUSE, RED ROOF
36 LANDING FIELDS AND AERONAUTICAL AIDS:

The Compilation Office has not been furnished any data for landing fields or aeronautical aids within the limits of the Map Drawing and none were visible on the nine lens office photographs.

37 JUNCTIONS:

To the east, a satisfactory junction has been made with Map Drawing for Survey No. T-8082.

To the west, a satisfactory junction has been made with Map Drawing for Survey No. T-8073. *Eliminated*

To the south, a satisfactory and complete junction has been made with the Map Drawing for Survey No. T-8080.

There is no contemporary survey to the north of this Map Drawing.

38 GEOGRAPHIC NAMES: 

As instructed, no geographic name investigation was furnished the Compilation Office by the Field Inspection Unit. The geographic names shown on this Map Drawing were taken from the following available sources:

U. S. Coast and Geodetic Survey Chart No. 530, published September 1940.

A list of undisputed names, as well as a list of disputed names are attached to this Descriptive Report.

39 HORIZONTAL ACCURACY:

The probable error in the 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:

This rough draft, shoreline survey for the Map Drawing for Survey No. T-8081 is believed to be complete in all details for charting and no other surveys are deemed necessary.
44 COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES:

Comparison was made with the United States Geological Survey, Toano, Va. 7\(\frac{1}{2}\) minute Quadrangle, Scale 1:62,500, surveyed in 1917, edition of 1930. All common planimetric detail was in very good agreement, except for minor differences in the location of marsh line and swamp areas. This is probably due to the great differences in scale between the quadrangle and the Map Drawing, as well as to natural changes occurring since the survey was made for the quadrangle.

45 COMPARISON WITH NAUTICAL CHARTS:

A detailed visual comparison was made with the U. S. Coast and Geodetic Survey Chart No. 530, scale 1:40,000, dated September 1940, and revised March 6, 1944. The following major differences in the location of marsh line and swamp areas, between the Chart and Map Drawing, were noted:

Between latitude 37° 24.5' and 37° 25.8', and between longitude 76° 59' and 76° 00', Dockman Swamp appears as a sizeable area on the Map Drawing, but is shown considerably smaller on the Chart.

At latitude 37° 24.2', longitude 76° 56', a swamp area not shown on the Chart has been detailed on the Map Drawing.

Along the eastern shore of the Chickahominy River, from latitude 37° 23.3' to 37° 23.7' longitude 76° 55.7', the location of marsh line is in definite disagreement.

At latitude 37° 22.5', longitude 76° 53.7', a swamp area not shown on the Chart has been detailed on the Map Drawing.

Numerous piling areas, stakes, piers, catwalks, sunken barges, shoreline structures, logs and trees offshore, not shown on the Chart, have been detailed on the Map Drawing.

At Hock-a-Hock, the recently constructed Chickahominy River Dam is shown only on the Map Drawing. (See paragraph 7 of Section 28, Detailing.)

There were other differences noted on comparison, but these are considered of minor importance.
Respectfully Submitted,
December 13, 1944

Raymond Glaser,
Sr. Engineering Draftsman

Compilation and Descriptive Report reviewed by:

J. Edward Deal Jr.,
Asst. Photogrammetric Engineer

Compilation of Map Drawing Supervised by:

J. Edward Deal Jr.,
Asst. Photogrammetric Engineer

Approved and Forwarded:
December 15, 1944

Fred. L. Peacock
Chief of Party, C. & G. Survey
Officer-in-Charge,
Baltimore Photogrammetric Office
GEOGRAPHIC NAMES

(Undisputed)

- Barrows Creek
- Binns Bar
- Chesapeake and Ohio Railroad
- Chickahominy River
- Craves Landing
- Cypress Bank Landing
- Diassund Bridge
- Dockman Swamp
- Fish Hole Landing
- Johnson Creek
- Lacey Creek
- Lanexa
- Matzehunk Neck
- Osborn Wharf
- Rock-a-Hock
- Walker
- Wilcox Neck
- Windsor Shadesh
- Turner Neck

Names preceded by "are approved. L. Heed 5/14/47"
GEOGRAPHIC NAMES
(Disputed)

- Chickahominy River Dam
- Diasmund Creek (follow nautical chart usage pending action by U.S.B.O.)
- Rock-a-Hock Dam
- Beaverdam Creek

Names preceded by * are approved. L. Hecht 5/13/47
15. Bridges.

The data shown on the manuscript for the Diascund Highway Bridge were taken from the U. S. Engineers "List of Bridges". The data on the Railroad Bridge downstream were obtained by the field inspection party.


The 1874 system of triangulation stations was not searched for by the field inspection party. These stations were marked by a nail in a cedar stake.


The 1:20,000 scale photographs 12984, 12985, 13008, and 13009 taken in December 1942 became available after this manuscript had been compiled. Although they contained no field inspection data, they were very useful during review in correcting the shoreline and bringing it up-to-date. All additions and corrections made during review have been shown in red.

30. Mean High Water Line.

Some of the shoreline was shown with a dash line either because it was considered indefinite by the field inspector and the compiler or because it was obscured by overhanging trees. By using the newer 1:20,000 scale photographs and giving the 1:10,000 scale photographs a close examination under the stereoscope, it was possible to determine the high water line or a definite limit of vegetation. The shoreline was then corrected and shown with a solid line.

32. Details Offshore from the High Water Line.

Some cypress trees growing in the water offshore have been added during review.

The Chickahominy River Dam at Rock-a-Hock is not visible on the latest 1942 photographs, so it has been shown with a dash line and noted "Proposed". The position of the Dam is that given on the blueprint mentioned in the Compilation Report.
34. Landmarks and Aids to Navigation.

Nautical Charts has no record of the recommendation for charting on Form 567 of the landmark "North Chimney, Two Story Unpainted House". The position as given on the 524 card is Lat. 37°22' 1410.2 m (439.5 m), Long. 76°56' 1166.6 m (309.6 m)

Form 567 has been submitted to Nautical Charts (June 1946).

40. Comparison with Previous Topographic Surveys.

T-1337a & b (1873-5), 1:20,000, and T-2729 (1906), 1:20,000, are completely superseded except for contours and detail further inshore than that shown on this survey.

41. Use of Present Survey.

It is proposed that the shoreline of this survey be used as supplemental data in the compilation of quadrangle T-8334.

45. Comparison with Nautical Charts.

T-8081 has not been applied to chart 530 prior to review.

Note:
T-8081 has been reproduced and printed from the original manuscript without redrafting.

Reviewed by:

Reviewed under direction of:

Jack L. Rihn
Photogrammetrist 5/20/46

S. V. Griffith
Chief, Review Section
APPROVED BY:

E.G. Jones 5/47
Technical Assistant to the Chief, Div. of Photogrammetry

K.T. Adams
Chief, Div. of Photogrammetry

K.T. Adams
Chief, Nautical Chart Branch Division of Charts

C. K. Green
Chief, Div. of Coastal Surveys
### Record of Application to Charts

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<td>1-18-54</td>
<td>580</td>
<td>Jack Allen</td>
<td>Before After Verification and Review</td>
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**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.**