

8053

Diag'd. on Diag. Ch. No. 78-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Planimetric Air Photo.
(SHORELINE)

Field No. CS-283 Office No. T-8053

LOCALITY

State Virginia

General locality James River

Locality Bennett Creek

1941-'44

CHIEF OF PARTY

D.E. Sturmer

• LIBRARY & ARCHIVES

DATE

B-1870-1 (1)

8053

DATA RECORD

T- 8053

Quadrangle (II): Newport News 15' Quadrangle
(U.S.G.S.)

Project No. (II): CS-283

Field Office:

Air Photographic Party No. 2

Chief of Party: Dale E. Sturmer
~~Fred. L. Peacock~~

Compilation Office:

Baltimore Photogrammetric Office

Chief of Party: Fred. L. Peacock

Instructions dated (II III):

March 26, 1942 - July 15, 1942
Sept. 30, 1942, Nov. 14, 1942, and
Nov. 24, 1942.

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

Completed survey received in office: 9-26-44

Reported to Nautical Chart Section:

Reviewed: 9-28-48

Applied to chart No.

No chart covers the area of T 8053
Date:

Redrafting Completed:

Registered: 3-28-49

Published:

Compilation Scale: 1:10,260

Published Scale:

Scale Factor (III): .97466

Geographic Datum (III): N.A. 1927

Datum Plane (III): ^{MHW} Mean Sea Level

Reference Station (III): BRADFORD, 1934

Lat.: 36° 52' 30.709" (946.6 m) Long.: 76° 29' 31.035" (768.6 m) Adjusted
Unadjusted

State Plane Coordinates (VI): Va. 5.

X = 2,587,331.04 Ft.

Y = 203,528.23 Ft.

Military Grid Zone (VI)

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	Eastern Standard <u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
7713-14	11-26-41	10:09 A.M.	1:10,000	0.2' above M.L.W.
7729	11-26-41	10:28 A.M.	1:10,000	0.2' above M.L.W.

Tide from (III): Predicted tables, Reference Station, Hampton Roads, Virginia, with corrections for Town Point, Virginia.

Mean Range: 3.0'

Spring Range: 3.6'

Camera; (Kind or source) U.S.C. & G.S. nine lens camera (focal length $8\frac{1}{4}$ ").
All negatives are on file in the Washington Office.

Field Inspection by:

Lieutenant Dale E. Sturmer

date: February, 1944

Field Edit by: None

date:

Date of Mean High Water Line Location (III):

Date of photographs supplemented by field inspection data obtained in 1944.

Projection and ^{State} Grids ruled by (III): J.T. (Washington Office) **date:** 8-9-44

" " " **checked by:** J.T. (Washington Office) **date:** 8-10-44

Control plotted by: Edward M. Snyder **date:** 8-14-44

Control checked by: Harold R. Brooks **date:** 8-15-44

Radial Plot by: J. E. Deal, Jr., Edward M. Snyder **date:** 8-21-44 to 8-24-44

Detailed by: Ruth E. Rudolph **date:** 7-31-44 to 9/25/44

Reviewed in compilation office by: Henry P. Eichert **date:** 9/20/44 to 9/25/44

Elevations on Field Edit Sheet checked by: None

date:

STATISTICS (III)

Land Area (Sq. Statute Miles): Shoreline only.

Shoreline (More than 200 meters to opposite shore): 8 Statute Miles.

Shoreline (Less than 200 meters to opposite shore): 10 Statute Miles.
(Measured along centerline of streams)

Number of Recoverable Topographic Stations established: 3

Number of Temporary Hydrographic Stations located by radial plot: 6

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:

SUMMARY TO ACCOMPANY T-8053

T-8053, a shoreline survey, belongs to a series of maps originally intended as planimetric surveys.

The original instructions of March 26, 1942 called for complete field inspection of shoreline and inland details necessary to make planimetric maps, except for the area completed by six Geological surveys between Hopewell and Richmond. Field inspection in the latter area included shoreline, hydrographic signals, and recovery of horizontal control.

However, one of the areas later assigned to and compiled by this Bureau in the War Mapping Program included practically all of the area of CS-283. Because this new 1:20,000 scale mapping was to cover the entire area from Richmond to the mouth of the James River, this Bureau did not compile nor publish complete planimetric maps of the area. Maps at 1:10,000 scale showing only the shoreline and signals for the control of hydrographic parties were subsequently compiled.

K. N. Maki
K. N. Maki
26 May 1949

26 CONTROL:

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

United States Coast and Geodetic Survey First Order
Triangulation Station:

LASSITER, (F.I.P. Las), 1932

United States Geological Survey Primary Traverse Station:

P.T.S. No. 11, 1918 *Removed from map manuscript. See Review Report*

United States Geological Survey Temporary Traverse Stations:

Center of Culvert, at east edge of road

West Rail, at north end of trestle.

Myers Station, about 300 feet southwest of road crossing.

Public road crossing, near north yard-limit sign;
platform northeast of crossing white house southeast.

Boone Junction, intersection of west rail of Southern
Railway and north rail of Atlantic Coast Line Railroad.

Point of switch at west end of siding.

The following horizontal control stations fall within the areas adjacent to the north, west, and south limits of this Map Drawing.

United States Coast and Geodetic Survey First Order Triangulation
Station:

SLEEPY HOLE TANK, 1932

United States Coast and Geodetic Survey Second Order Triangulation
Stations:

BRADFORD (F.I.P. Brad) 1939

NEW (F.I.P. Wen), 1934

ODOM, (F.I.P. Odo), 1934

OLDS (F.I.P. Dol), 1934

United States Coast and Geodetic Survey Intersection Triangulation
Stations:

BRADFORD HOUSE CUPOLA, 1934

NANSEMOND RIVER BRIDGE, E. TOWER, 1934

NIX'S CLUB HOUSE, 1934

26 CONTROL: (Cont'd.)

United States Engineers Station:

NAG (F.I.P. Gan) 1932, r. 1934

United States Geological Survey Temporary Traverse Stations:

Center of Culvert, about 200 feet northeast of house on farm.

Edge of road, 7 feet N. $72^{\circ} 30'$ W. of, the more western of two pine trees in field.

Second-Class road crossing.

Signpost reading "Railroad Crossing 1 Mile".

The United States Geological Survey Traverse Stations mentioned above, both inside and outside of the limits of this Map Drawing, could not be used for horizontal control along with the United States Coast and Geodetic Survey horizontal control stations. This condition was thoroughly discussed in the Descriptive Report for the combined radial plot of Surveys No. T-8053, T-8054, T-8063, T-8064, T-8065, and T-8066.* All other horizontal control stations listed above were used to establish photograph centers, secondary control points and detail points for this Map Drawing.

See Review Report

* *Filed in photogrammetric section, general files*

27 RADIAL PLOT:

The radial plot for this Map Drawing is part of the combined radial plot for Surveys Nos. T-8053, T-8054, T-8063, T-8064, T-8065, and T-8066, the Descriptive Report for which was submitted to the Washington Office on September 15, 1944. *Filed in Div. of Photogrammetry, General Files.*

28 DETAILING:

The number of nine lens photographs, covering the area of this Survey, were not sufficient to adequately compile this Map Drawing. Only one photograph center, that of No. 7714, falls within the limits of this Map Drawing and was used for the major portion of the detail. Photographs Nos. 7713 and 7729 were used for a small portion of the detail. The average scale of the photographs were in good agreement with the scale of the Map Drawing Projection. Most of the land area immediately adjacent to the shoreline is marsh and the firm ground has very little relief. This enabled the use of the outer wing chambers for detailing.

The stereoscope was used to verify the shoreline field inspection

28 DETAILING: (Cont'd.)

data furnished the Compilation Office by the Field Inspection unit. These data were transferred to the office photographs and then detailed on the Map Drawing. In general, the field inspection data were satisfactory.

The shoreline and immediate adjacent culture of Bennett Creek, North Creek, and a very small portion of the southeastern shore of the Nansemond River has been shown on this Map Drawing in accordance with the Director's letters dated March 26, 1942, July 15, 1942, and September 30, 1942, pertaining to Project No. CS-283. Bennett Creek, below latitude $36^{\circ} 51'$, has been detailed but, because of the lack of control and insufficient photographs, the accuracy of detailing may not be within the allowable error.

The shoreline of the Western Branch of the Elizabeth River and its tributaries has been shown in red acid ink. As there were no photographs covering the area, the shoreline was traced from a copy of Map Manuscript for Survey No. T-8295, scale 1:20,000, after being enlarged to the scale of the Map Drawing by use of the vertical projector.

This portion of the map manuscript has been deleted.

All drainage flowing into Bennett Creek and North Creek has been detailed. Drainage, not identified by the Field Inspection Unit, has been shown with a light-weight dashed acid ink line.

Roads were not classified by the Field Inspection Unit and have been shown according to the Compiler's interpretation from the nine lens photographs.

Tree areas, not classified by the Field Inspection Unit, were also interpreted by the Compiler from the nine lens photographs. These areas have been detailed and shown with the conventional symbols.

Buildings immediately adjacent to the shoreline and those which were believed to be located at a sufficient elevation so as to be visible from the water have been detailed.

A catwalk and a diving platform, just offshore from Bennett Creek at approximate latitude $36^{\circ} 51' 10''$ and longitude $76^{\circ} 29' 30''$ have been located by means of sextant fixes furnished by the Field Inspection Unit.

29 SUPPLEMENTAL DATA:

An ozalid of Map Manuscript for Survey No. T-8295 was furnished the Compilation Office. The Western Branch of the Elizabeth River was transferred from this ozalid to the Map Drawing as previously mentioned in paragraph No. 28.

30 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 the outer limits of low wet land at Mean High-Water, and is not considered to be the Mean High-Water Line.

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 photographs.

Several mud areas, identified by the Field Inspection Unit, are outlined on the Map Drawing with a light weight dotted black acid ink line and labelled "Mud". A shoal area, along the southeastern bank of the Nansemond River, has been identified as "hard bottom" on the field photographs and has been shown on the Map Drawing with the sand symbol. See Review Report.

32 DETAILS OFFSHORE FROM THE HIGH-WATER LINE:

Piling areas, trees in the water, stakes, logs, and a fish net were identified by the Field Inspection Unit, and are detailed on this Map Drawing, accompanied by appropriate notations.

One wreck, identified on field photograph No. 7729, by the Field Inspection Unit, at approximate latitude $36^{\circ} 52' 24''$ and longitude $76^{\circ} 29' 30''$ has been shown on the Map Drawing. The extent to which it bares was not indicated by the Field Inspection Unit.

33 WHARVES AND OTHER SHORELINE STRUCTURES:

Numerous catwalks, piers, remains of piers, boat sheds, retaining walls, and a diving platform were identified by the Field Inspection Unit and are detailed and labelled on this Map Drawing. No other shoreline structures were visible on the photographs.

34 LANDMARKS AND AIDS TO NAVIGATION:

No objects were recommended for charting as landmarks in the area of this Map Drawing. There are no Fixed Aids to Navigation within the limits of this Map Drawing.

35 HYDROGRAPHIC CONTROL:

The Compilation Office was furnished the identification of three (3) temporary hydrographic stations and seven (7) 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 office photographs and radially plotted on the Map Drawing. *See Review Report*

One of the seven Recoverable Topographic Stations, namely: "N. Gable T-Shaped White House" has not been radially plotted. Because of insufficient photographic coverage, a good intersection on this station could not be obtained. The building has been detailed and an appropriate note calling attention to the missing station has been shown. *Note removed during review*

The numbers and descriptions of all other stations have been noted near the stations have been noted near the station to which they refer, directly on the Map Drawing.

Form No. 524 is being submitted for the six (6) Recoverable Topographic Stations. They are:

- OPE, 1943
- TOP, 1943
- ~~N. Gable of Red Barn~~
- N. Gable Two-Story White House, 1944
- ~~E. Gable Two-Story White House~~
- ~~E. Gable One and One-Half Story Brick House.~~

Forms No. 524 have been previously submitted for stations "OPE" and "TOP" under War Mapping Project No. CS-289. The position radially plotted for these stations during the compilation of this Map Drawing is about five meters west of the radially plotted position established on the War Mapping Map Manuscript for Survey No. T-8295. It is believed that due to scale difference and good identification on the 1:10,000 photographs, that the radially plotted position established on the Map Drawing, is the better of the two.

See Review Report.

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 this Map Drawing and none were visible on the nine lens photographs.

37 JUNCTIONS:

To the north - The junction with Map Drawing, Survey No. T-8054, is in satisfactory agreement.

37 JUNCTIONS: (Cont'd.)

To the east - No contemporary Survey.

To the south - No contemporary Survey.

To the west - The junction with Map Drawing for Survey No. T-8064 is in satisfactory agreement.

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:

United States Geological Survey Newport News, Virginia, 15 Minute Quadrangle and Survey No. T-8295, Project No. CS-289.

All names were undisputed and a list is 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 for all detail above latitude $36^{\circ} 51'$. Due to insufficient photographic coverage, the planimetry shown on this Map Drawing, south of latitude $36^{\circ} 51'$; may not be within the allowable error.

40 RECOMMENDATIONS FOR FUTURE SURVEYS:

This rough draft, shoreline - Survey for Map Drawing No. T-8053 is believed to be complete in all details for charting and no other Surveys are deemed necessary.

44 COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES:

Due to scale difference, a visual comparison only could conveniently be made with the United States Geological Survey Newport News, Virginia, 15 minute Quadrangle, scale 1:62,500, edition of 1921, reprinted in 1941. All common topographic features appeared to be in good agreement.

Comparison was also made with Map Manuscript for Survey No. T-8295, Project No. CS-289, scale 1:20,000. Common planimetric features were found to be in excellent agreement, north of latitude $36^{\circ} 51'$, except for a few minor indentations and protrusions occurring in the Mean High-Water Line. Below latitude $36^{\circ} 51'$, the two Surveys were in generally fair agreement. Due to the lack of sufficient 1:10,000 photographs, the planimetry of the War Mapping Map Manuscript is probably more accurate.

45 COMPARISON WITH NAUTICAL CHARTS:

The topography shown on this Map Drawing is outside the detail limits of all the catalogued Nautical Charts of the vicinity.

Respectfully Submitted:
September 23, 1944

Ruth E. Rudolph
Ruth E. Rudolph,
Asst. Photogrammetric Aid

Compilation and Descriptive
Report, Reviewed By:

Henry P. Echert
Henry P. Echert,
Jr. Photogrammetric Engineer

Compilation of Map Drawing
Supervised By:

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

Approved and Forwarded:
September 27, 1944

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

BENNETT CREEK
Nansemond River to Atlantic Coast line railroad.
PART OF PROJECT CS-283

List of numbers, and descriptions of the
Temporary Hydrographic Stations appearing on
Map Drawing Survey No. T-8053.

Number of Temporary Hydrographic Stations 6

Listed by:

Checked by:

Ruth E. Rudolph

C. Theurer

- No.
- 12 North gable of a red barn which is southeasterly of a group of farm buildings near the forks of Bennett Creek and a branch leading to the eastward.
 - 14 Tip of marsh between two small streams.
 - 15 East corner of shack on bluff. Shack has flat roof.
 - 16 Tip of marsh on West side of entrance to small stream.
 - 17 East gable of a white, two story house with a metal roof with a short, one story L at the Northwest corner and a red brick chimney on the East gable.
 - 18 East gable of a 1 1/2 story old, brick house with a shingle roof and a chimney on each end. There is a small T addition on the North side.

GEOGRAPHIC NAMES

- Quaker Neck Creek.
- Quaker Neck.
- Bennett Creek*.
- Bennett Creek (Town).
- Deanes Branch.
- ~~Drum Point~~
- ~~Drum Point Creek~~
- ~~Elizabeth River (Western branch)~~
- Nansemond River.
- North Creek -- Knotts Creek ?
- ~~Sterns Creek~~
- Atlantic Coast Line R.R.
- Virginia* (for title)
- KNOTTS NECK.
- U.S. Route 17.
- Deanes (Town) * = Decis. of BGM.
- = Approved name.

Quadrangle (stet North Creek pending action by US B&N)

↑ No decision as of 4/1/49

9-27-48

A. J. W.

11/9/48 L.H.

Division of Photogrammetry
Review Report of
Shoreline Map Manuscript T-8053

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

26 Control

The plotted positions of the U.S.G.S. temporary traverse stations were removed from the map manuscript. They are of less than third order accuracy and their positions did not check with their radially plotted positions.

The U.S.G.S. primary traverse station, P.T.S. No. 11, 1918, was removed from the map manuscript. The U.S.C. & G.S. station, Lassiter, 1932, is less than a mile from P.T.S. No. 11 and was held in the radial plot. P.T.S. No. 11 could not be held.

28 Detailing

Buildings were added in outline where their positions coincided with the symbols for control stations.

31 Low Water and Shoal Lines

The dotted line enclosing areas labelled "mud" was changed to a dashed line. The dashed line outlines the shallow areas as indicated by the field inspector.

37 Recoverable Topographic and Photo-Hydro Stations (*see reverse side*)

The following topographic stations were changed to photo-hydro stations. They did not meet the required accuracy for topographic stations because of poor photographic coverage in the area in which they are located.

North Gable of Red Barn, 1944
East Gable, Two story white house, 1944
East Gable, One and one half story brick house, 1944

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

44 Comparison with Existing Surveys

USGS	Newport News	Quadrangle	1:62500	1921 Reprinted 1947
T-505		1:20000		1851
T-3039		1:10000		1909
T-6422		1:10000		1934
T-8295		1:62500		1921 reprinted 1947
		1:20000		1944
		1:31680		

The 5 meter discrepancy in the radially plotted positions of topo stations noted in par. 35, p. 8 apparently has not been adjusted between T-8053 and T-8295. The 524 cards for topo stations "Open" and "Top" under T-8295 have been retained but are cross referenced to the 524 cards for the same topo stations on T-8053. The latter, as noted ^{in par 35}, are considered the more accurate in their ^{radially} plotted positions.

F. H. Mah

Low Water and Shoal Lines

5/27/49
 Topo stations "Open" and "Top" were established in 1943 and their positions were picked on 1:20,000 scale photos and radially plotted on T-8295, scale 1:20,000. The two stations were rechecked in 1944 on 1:20,000 scale photos and radially plotted on manuscript T-8053, scale 1:10,000. The plotted positions determined from the larger scale manuscript T-8053 are, therefore, considered the more accurate.

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

Comparison with Existing Surveys

USGS	Newport News	Quadrangle	Scale	Year
T-8295			1:20,000	1944
T-8122			1:20,000	1944
T-3039			1:10,000	1934
T-205			1:20,000	1851
			1:2500	1951 Reprinted 1947

