8179

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Air Photo. Compilation

Field No. 76 *Office No.* T-8179

LOCALITY

State Virginia

General locality Outer Coast

Locality GREAT MACHIPONGO INLET

1942

CHIEF OF PARTY
Lieut. Comdr. Francis L. Gallen
Lieut. Comdr. Kenneth G. Crosby

LIBRARY & ARCHIVES

DATE September 27,1945

B-1870-1 (1)

8179

Form T-1

DATA RECORD

T- 8179

Quadrangle (II): Great Machipongo Inlet Project No. (II): CS-278-C

Field Office: Salisbury, Md. Chief of Party: W. D. Patterson

Compilation Office: Tampa, Florida Chief of Party: K. G. Crosby

Instructions dated (II III): 3/4/42 Copy filed in Descriptive Report No. T- (VI)

Completed survey received in office: ~~4/9/43~~ 11/30/42

Reported to Nautical Chart Section: 11/42

Reviewed: 2-19-43 Applied to chart No. Date:

Redrafting Completed: 3/29/43

Registered: 9/26/45 Published: 7/15/43

Compilation Scale: 1:20,000 Published Scale: 1:25,000

Scale Factor (III): 1:000

Geographic Datum (III): N.A. 1927 Datum Plane (III): M.S.L.

Reference Station (III): Black Beacon (Fl. W.) Great Machipongo Inlet, 1934

Lat.: 37°21'43".40 (1337.9 m.) Long.: 75° 43' 44".58 (1097.0 m.) ~~Adjusted.~~ Unadjusted

State Plane Coordinates (VI): Virginia South

~~To be added later~~

X = Y =

Military Grid Zone (VI) "A"

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
8994	4-18-42	3:24	1:20,000	+ 0.1 Ft.
8995	"	3:26		+ 0.1 Ft.

Tide from (III): Predicted Tides, Great Machipongo Inlet, Virginia

Mean Range: 3.9 Feet Spring Range: 4.7 Feet

Camera: (Kind or source) 9 lens & single lens

Field Inspection by: C. Hanavich date: May-June '42

Field Edit by: Wendell Bever, Photo. Aid date: Dec-Jan 42-43

Date of Mean High-Water Line Location (III): April 18, 1942

Projection and Grids ruled by (III) Wash. Office date: 9-23-42

" " " checked by: date:

Control plotted by: A.L.Kidwell, Jr. Topo. Engr. date: 10-8-42

Control checked by: V.F.Simmons, Asst. Engr. Drafts date: 10-8-42

Radial Plot by: Tampa Office Personnel date: 10-1942

Detailed by: Leland H. Zollars, Photo Aid date: 10-31-42

Reviewed in compilation office by: A.L.Kidwell, Jr. Topo. Engr. date: 11-13-42

J.H.S.Billmyer, Prin. Engr. Drafts.

Elevations on Field Edit Sheet checked by: Wendell Bever, photo. Aid date: 1-1-43

STATISTICS (III)

Land Area (Sq. Statute Miles): 1.5

Shoreline (More than 200 meters to opposite shore): 6 Stat. Miles

Shoreline (Less than 200 meters to opposite shore): 5 Stat. Miles

Number of Recoverable Topographic Stations established: 1

Number of Temporary Hydrographic Stations located by radial plot: 0

Leveling (to control contours) - miles: 0

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:

COMPILATION REPORT
TO ACCOMPANY
SHEET NO. T-8179
Great Machipongo Inlet Quadrangle

CONTROL

Only one triangulation station (Black Beacon (Fl.W.), Great Machipongo Inlet, 1934) fell within the tracing limits of the sheet. This station was held to during the radial plot, as it appears to be correct, although a picking card giving a sextant fix does not agree with the triangulation. The "Light List" shows this light as being built in 1930 and has not since been re-established. This fix should be checked in the field.

RADIAL PLOT

The main radial plot which covered this sheet has been discussed in the compilation report for Sheet T-8176.

DETAILING

The photographs were of poor scale but the compiler was able to use them in detailing the sheet. The field inspection was satisfactory and complete.

SUPPLEMENTAL DATA

No graphic control surveys by this Bureau, or maps and plans of other organizations were used to supplement the photographs.

LANDMARKS AND AIDS TO NAVIGATION

One light (mentioned under "Control") falls on the sheet. As this light has already been charted from its 1934 triangulation position, no Form 567 is being submitted.

HYDROGRAPHIC CONTROL

One recoverable topographic station, (NAT 1942), suitable for the control of hydrographic surveys falls on the sheet. Its scaled geographic position is listed on Form 524.

COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES

A comparison with made with the Broadwater, Virginia Quddrangle compiled in October 1919 by the Corps of Engineers, U. S. Army, Large changes in the shoreline have been made, but this is quite possible due to the type of terrain and its exposure to the North Atlantic.

COMPARISON WITH NAUTICAL CHARTS

In comparing the sheet with U.S.C.& G.S. Chart 1222, published Aug. 1942 on a scale of 1:80,000, the same discrepancies were noted that are mentioned under the previous heading. The map compilation should supersede the charted information.

Respectfully submitted,

Leland H. Zollars,
Photogrammetric Aid

Forwarded by:

Kenneth G. Crosby, Chief of Party

FIELD EDIT REPORT
Quadrangle T-8179
Project CS-278-C
F.L.Gallen, Chief of Party

1. The northern half of Cobb Island and the southern tip of Rogue Island is the only land area falling on this sheet. The land is equally divided between marshy areas and sandy areas. The shoreline is unstable especially near the entrance to the Great Machipongo Inlet where tidal currents are the strongest. No wooded areas, roads, or buildings are present on this sheet.

6. By means of a hand level three elevations were spotted on some of the higher dunes of Cobb Island. These elevations are unstable as the dunes shift both vertically and horizontally.

16. No bridges are found on this sheet.

17. Political boundaries were obtained from maps ~~issued by the Virginia State Roads Commission~~ furnished by the Census Bureau and were verified in the field.

18. For Geographic Names refer to the special report for Project CS-278-C.

46. All additions, deletions, and corrections were made on the map manuscript and transferred to the smooth copy after the field work had been accomplished. The inking of the map manuscript was done in accordance with the following scheme:

FEATURES	COLORS
Additions, elevations	Black
Political boundaries	Purple

47. The detailing was accurate and complete.

48. Horizontal accuracy tests were run in quadrangles T-8174, and T-8175. As no elevations exceeded 18 feet, a vertical accuracy test was not necessary.

49. As sheet T-8173 was sent in to the Washington Office and does not show the submerged cable connecting Cobb Island with Rogue Island and Hog Island a supplementary sketch was added to sheet T-8179 to show the continuation of the cable from T-8179 to sheet T-8173. This addition should be added to sheet T-8173.

Submitted by
Wendell Bever
Wendell Bever,
Photogrammetric Aid

Approved by
F. L. Gallen
F. L. Gallen, Chief of Party

Form 567
(Rev. April 1942)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

T-8179

L.141(1943)

~~LANDMARKS FOR CHARTS~~
PERMANENT AIDS TO NAVIGATION

TO BE CHARTED
~~TO BE DELETED~~ } STRIKE OUT ONE

Onancock, Va. January 6, 1943

I recommend that the following objects which have (~~have not~~) been inspected from seaward to determine their value as landmarks, be charted on (~~deleted from~~) the charts indicated.

The positions given have been checked after listing.

F. L. Gallen
Chief of Party.

GENERAL LOCALITY GREAT MACHIPONGO INLET, VA.

NAME AND DESCRIPTION	POSITION					METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	LATITUDE		LONGITUDE		DATUM						
	° ′	D. M. METERS	° ′	D. P. METERS							
Great Machipongo Inlet Entrance Light (Bl. Boa. Fl.W. Great Mach.Inlet)	37 21	~~1338.0~~ 1337.2	75 43	~~1097.2~~ 1096.8	N.A. 1927	Triangulation	1934		x		1222
Vir. G.Ps pg. 727 11/9/44 SEE											

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." Positions of charted landmarks and floating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

U. S. GOVERNMENT PRINTING OFFICE 16—27869-1

GEOGRAPHIC NAME LIST FOR T-8179

Atlantic Ocean
Cobb Island
East Channel
Great Machipongo Inlet
Hog Island Bay
North Channel
Northeast Channel
Rowes Hole Channel
Sand Shoal Inlet — not on U.S. quad.
Second Channel
Shell Creek

ABBREVIATIONS

ROADS

W — Width (feet bet. shoulders)
P — Private road
OP — Overpass
UP — Underpass
X — Abandoned trail, road, etc.
RR — Railroad tracks; as 2 tracks

WOODS CLASSIFICATION

Density Classification

1 — Scattered
2 — Thinly wooded
3. — Heavily wooded
4 — Densely wooded

Types of woods

D — Deciduous
P — Evergreen and pine
R — Brush
S — Scrub
Y — Cypress
L — Young trees (LP—young pines LD—young deciduous trees)

SHORE LINE

HWL — Mean high water; fast land
LWL — Low water line
LL — Light line; marsh shore line
M — Marsh inshore limits
MW — Marsh grass in water
Dk — Dock
Pier — Pier
Se W — Sea wall
Bkhd — Bulkhead
Jet — Jetty
Dol — Dolphin
Pile — Pile
S — Sand
Mud — Mud
Rk — Rock or rocky
Sty — Stony
Conc — Concrete
Wo — Wood
Blf — Bluff
Dune — Dune

BOUNDARIES

F — Fence
Sty F — Stone fence
F B — Fire Break
Hdg — Hedge
Park — Park
Cem — Cemetery
Co — County
Md. — Maryland
Va. — Virginia
Bdy — Boundary

VEGETATION

C — Cultivation
Gr — Grass

BUILDINGS

Ho — House
Ba — Barn
Sh — Shed
Bldg — Building
Bo Ho — Boat House
Ch — Church (give name)
Ct Ho — Court House (give name)
P O — Post Office (give name)
Sch — School (give name)
Hos — Hospital (give name)
RR Sta — Railroad station
Sto — Country store or gas sta.
P Sta — Power Station
Ck H — Chicken House
D — Dwelling

LANDMARKS

FT — Fire tower
TT — Transmission tower
RT — Radio Tower or mast
Air Bn — Airway beacon
Bn — Non-lighted aid to navigation
Lt — Lighted aid to navigation
Tk — Low tank
Tk elev — Tall tank
Stk — Stack

STREAMS, PONDS & BRIDGES

D — Largest ditches only
DX — Small
IS — Intermittent stream
PD — Probable drainage
Cr — Creek
Ca — Canal
Brg — Bridge, (capacity & clearance)
Cv — Culvert (capacity)
Lev — Levee
Dam — Dam
P — Pond
IP — Intermittent pond

ROAD CLASSIFICATION FOR MAPS OF ALL SCALES

CLASS	LABEL	STRUCTURE	LOADING
1	Dependable hard-surface heavy duty road.	Concrete, asphaltic concrete bituminus Macadam, H-15 type structures.	Will bear heaviest loads with little maintenance.
2	Secondary, hard-surface all-weather road.	Surface-treated, oiled gravel, waterbound Macadam, structures generally lighter than H-15 but sturdy.	Will bear fairly heavy military loads in all weather if maintained.
3	Loose-surface graded, dry-weather road.	Gravel or stone surface, stable material, selected sand-clay, etc. Drained and graded.	Will bear light military loads in good weather.
4	Unimproved road.	Graded and drained earth, with very light structure.	Generally unsuitable for military loads.
4U	Truck road	Woods roads, farm roads, etc. over which a standard gage vehicle can be driven.	
5	Trail	(Horse trails, foot trails, etc.)	

Roads with more than two (2) lanes are indicated by note along road, e. g. 3 LANE. Change in lanes shown by tick at point of change. Main roads have two lanes unless otherwise marked.

Private roads are designated by the letter P after the road classification.

WOODS CONCEALMENT CLASSIFICATION

Class A: Trees over 10' high and thick enough to hide troops.

Class B: Brush thick enough to hide troops but dense enough to impede progress.

Class C: Scattered brush thick enough to hide troops but not thick enough to impede progress.

T-8179

	Remarks	Decisions
1		373756
2	deleted from finished Map	"
3		373757
4		" USGB
5		"
6		"
7	Name seems To refer To channel on 8176 and has been left off smooth sheet. HSL	372757
8		374757
9		373757
10		
11	It seemsdoubtful if this name should appear on this quadrangle, since merely the outermost approach to the inlet is included on it.	372757
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M 234

GEOGRAPHIC NAMES

Survey No. T-8179

GREAT MACHIPONGO INLET quadrangle

Name on Survey

Name on Survey	A, On Chart No.	B, On previous survey No.	C, On U. S. quadrangle Maps	D, From local information	E, On local Maps	F, P. O. Guide or Map	G, Rand McNally Atlas	H, U. S. Light List	K	
North Channel	✓									1
East Channel										2
Great Machipongo Inlet	✓									3
Cobb Island	✓									4
Second Channel	✓									5
Rowes Hole Channel	✓									6
Northeast Channel										7
Hog Island Bay	✓									8
Shell Creek	✓									9
Atlantic Ocean	✓									10
Sand Shoal Inlet										11
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L Heck 11/16/43

M 234

RECORDS

Between January, 1942 and July, 1944, this Bureau completed 323 quadrangles. These maps have been published, or are in the process of being published on scales of 1:31,680 or 1:25,000. This series of quadrangles includes a land area of approximately 15,000 square miles. Incident to this work, a considerable volume of survey records and data has accumulated which will be filed for future reference. This material is filed as follows:

Registered and Filed in the Vault

Cloth-mounted copy of the published quadrangle.

published quadrangle at 1:20,000 scale
Black and white cloth-mounted copy of the ~~map manuscript~~. This copy is filed to preserve original survey detail shown on the manuscript at 1:20,000 scale which may not have been shown on the published sheet. For ~~political boundaries~~, woodland, ~~marsh, and swamp limits~~, refer to the published quadrangle for the finally adopted positions.

Descriptive Report.

Filed in the Photogrammetric Section - Surveys Branch

Field inspection photographs.

Contoured photographs (on which planetable contouring work was performed.)

Field edit sheet.

Descriptions of recoverable topographic stations (Form 524), filed in Reviewing Unit.

Supplementary traverse and level records.

Field notes, computations, lists of positions, and tabulations of results of horizontal and vertical accuracy tests.

Reproduction proof.

Correction sheet (copy of quadrangle showing in red changes to be made when next printed.)

Check lists of work performed on each sheet in the Washington Office during review, drafting, edit, and reproduction.

Original celluloid manuscript.

Copies of specifications and all instructions to field parties and field offices.

Filed in Reproduction Branch

Glass negatives of the color separation drawings.

Filed in the Library

~~Special report on field work by Commander K. T. Adams, 1944.~~

Special report on office work by B. G. Jones, 1944.

Season's report on field work by Commander F. L. Gallen, 1944.

Season's report on field work by Commander R. L. Schoppe, 1944.

Delivered to the Army Map Service in accordance with the contract

Film negatives and film positives of the color separation drawings.

All color separation drawings.

~~Original celluloid manuscript.~~

A correction sheet consisting of a copy of the first edition of the quadrangle with notes in red indicating changes desirable at the next printing.

General Procedure in the Production of Topographic Quadrangles for the War Department

This quadrangle, together with similar adjoining maps produced under Project C.S.278-9 was prepared by the Coast and Geodetic Survey for the War Department under "General Specifications for War Department Mapping Program" issued about December 1941, in which is incorporated the "Standard of Accuracy for a National Map Production Program" issued by the Bureau of the Budget under date of June 10, 1941.

The general procedure in the production of this and the adjoining quadrangles was:

FIELD SURVEYS

Aerial photography with the Coast and Geodetic Survey nine-lens camera, with airplane and flight crew furnished by the U. S. Coast Guard. The photographs were taken to the scale of 1:20,000.

Ground inspection of the photographs for identification of control points, and classification and clarification of planimetric details on the photographs.

Contouring by planetable directly on the photographs. Supplementary vertical control was established by means of an extensive subordinate level net, furnishing unmarked elevations at road intersections, driveways, and numerous other points identifiable on the photographs.

COMPILATION OF MANUSCRIPT

Compilation on the map manuscripts by radial plot methods (celluloid hand templets) of all planimetry and contours. These manuscripts were drawn on the scale of 1:20,000 on celluloid sheets on which polyconic projections had been ruled with the Projection Ruling Machine in the Washington Office. Compilation was accomplished in the ~~Baltimore~~ Tampa Photogrammetric Office.

FIELD EDIT

Comparison of a copy of the manuscript with the ground. This included inspection for completeness and accuracy as well as the location by planetable methods of additional details, checking of nautical and aeronautical aids to navigation, etc.

Accuracy Tests - Application of systematic horizontal and vertical accuracy tests to check the maps for conformity with the specifications. These tests consisted of comparison of the map position and elevation of selected random points with the true position and elevation as independently determined by standard survey methods.

PROCESSING IN THE WASHINGTON OFFICE

Review - Examination of the manuscript for accuracy and completeness of compilation and compliance with specifications, correcting where necessary; addition of military and state grids and other special features; and verification of the general adequacy of the manuscript as a basis for the production of a finished map.

Drafting and Reproduction - Preparation of smooth color separation drawings on 1:20,000 scale on metal-mounted "blueline" copies of the manuscript. From these drawings, negatives and printing plates were prepared for reproduction of the finished map on the scale of 1:31,680 or 1:25,000.

DIVISION OF CHARTS

SURVEYS BRANCH

REVIEW OF AIR PHOTOGRAPHIC SURVEY T- 8179

GREAT MACHIPONGO INLET QUADRANGLE

This quadrangle manuscript has been examined for completeness, accuracy, and conformity with the specifications. It is adequate for smooth drafting, reproduction and publication. Revisions found to be necessary in this office are discussed on the next page.

Horizontal and Vertical Accuracy

There are no accuracy tests in this area. Refer to Survey T-8177 for the nearest tests.

Previous Surveys

This manuscript has been compared with the following previous topographic surveys of this Bureau and other agencies. This map is satisfactory to supersede the previous surveys over the common area.

T-523	1:20,000	1856
T-511	1:20,000	1852-88
T-1200	1:20,000	1871
T-1201	1:20,000	1869-70-88
T-3223	1:20,000	1910-11
T-6240b	1:20,000	1934 (Graphic Control)

Comparison with Nautical Charts Nos. 1222

The manuscript has not been applied to the charts at the date of this review. The following comments are pertinent to the compilation and correction of nautical charts:

Only slight differences in shoreline are apparent.

The following revisions of the map manuscript were found to be necessary and were accomplished as a part of this review:

Only changes of a minor nature were necessary on this map manuscript.

Reviewed Feb 18, 1943 By Peter Kerr per W. M.

under direction of D. H. Benson

Inspected by B. G. Jones B.G. Jones

Examined and approved:

Charles Pierce
~~Chief~~, ~~Surveys Branch~~ CHART DIVISION

T. S. Gordon
Chief, Div. of Charts

K.T. Adams
Chief, Topography Section

Raymond S. Patman
Acting Chief, Div. of Coastal Surveys