

8183

8183

Form 504	
U. S. COAST AND GEODETIC SURVEY	
DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey	Air Photo. Compilation
Field No. 83	Office No. T-8183
LOCALITY	
State	Virginia
General locality	Outer Coast
Locality	Cape Charles
1942	
CHIEF OF PARTY	
Lieut. Comdr. Kenneth G. Crosby	
Lieut. Comdr. Francis L. Gallen	
LIBRARY & ARCHIVES	
DATE	December 21, 1945

Dir 78-3

DATA RECORD

T- 818³₂

Quadrangle (II): Cape Charles

Project No. (II): CS-278-C

Field Office: Salisbury, Md.

Chief of Party: W. D. Patterson

Compilation Office: Tampa, Fla. 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: Nov. 30, 1942

Reported to Nautical Chart Section: Dec. 2, 1942

Reviewed: Mar. 19, 1943 Applied to chart No. Date:

Redrafting Completed: April 17, 1943

Registered: 12/45

Published: 1943

Compilation Scale: 1:20,000

Published Scale: 1:25,000

Scale Factor (III): 1.00

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

Reference Station (III): Quarantine, 1906

Lat.: 37°05'44"400 (1368.7 m.) Long.: 75°58'27"535 (680.0 m.) Adjusted
Unadjusted

State Plane Coordinates (VI):

Virginia System of Plane Coordinates, South Zone.
X = 2,736,554.97 Feet Y = 287,403.21 Feet

Military Grid Zone (VI) "A"

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
9001	4-18-42	3:38		+ 0.1 Ft.
9002	"	3:40		+ 0.1 Ft.

292 }
 293 } single
 294 } lens
 354 }
 355 }

Tide from (III): Predicted tides, Smith Island, Virginia

Mean Range: 4.0 Ft. Spring Range: 4.8 Ft.

Camera: (Kind or source) U. S. Coast & Geodetic Survey Nine Lens
 (Focal Length $8\frac{1}{4}$ inches)

Field Inspection by: *C. Hanavick, C. O. Rector* date: *1942*

Field Edit by: *Louis Levin, 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. Offc. 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. Photo Aid date: 10-9-42

Radial Plot by: Tampa Office Personnel date: 10-15-42

Detailed by: W.E. Snyder, Asst. Photo Aid date: 10-1942

Reviewed in compilation office by: A.L. Kidwell, Jr. Topo. Engr. date: 11-1942
 J. A. Giles, Prin. Photo Aid

Elevations on Field Edit Sheet
 checked by: *Louis Levin, photo. Aid* date: *Jan. - 1943*

STATISTICS (III)

Land Area (Sq. Statute Miles): 2.84

Shoreline (More than 200 meters to opposite shore): 22

Shoreline (Less than 200 meters to opposite shore): 22

Number of Recoverable Topographic Stations established: 2

Number of Temporary Hydrographic Stations located by radial plot: 7

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:

COMPILATION REPORT
TO ACCOMPANY
SHEET NO. T-8183
Cape Charles Quadrangle

CONTROL

All triangulation control that fell on the sheet was held to during the main radial plot. Some trouble was encountered in picking radial points in the indefinite marsh area on Fishermans Island.

RADIAL PLOT

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

DETAILING

The detailing was done from photographs that were clear but of poor scale. The field inspection was adequate, although the field inspector erred in delineating the shoreline in several places on Fishermans Island on the single lens field print. A comparison with the nine lens photos (taken at a later date than the single lens), shows these errors.

SUPPLEMENTAL DATA

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

DETAILS OFFSHORE FROM THE HIGH WATER

The remains of the foundation of Old Cape Charles Lighthouse lie offshore approximately 200 meters. This foundation was located by the radial plot and is shown on the sheet as a topographic station.

LANDMARKS AND AIDS TO NAVIGATION

One non-floating aid to navigation falls on the sheet and its geographic position is listed on Form 567. *Turned over to nautical chart Br. 10/12/45 Bgg*

HYDROGRAPHIC CONTROL

Two recoverable and seven temporary topographic stations suitable for the control of hydrographic surveys were located by the radial plot. The geographic positions of these stations are listed on Form 524.

Station "Wise, Tower A" and "Wise, Tower B" could not be clearly shown on the sheet. These geographic positions were obtained by applying measurements taken from picking card to Station "Wise, Tower C".

COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES

A comparison was made with the Cape Charles Quadrangle, published by the Corps of Engineers, U. S. Army on a scale of 1:62,000. Although the quadrangle map has been revised to 1938, great changes were noted in the shoreline

* Photographs taken at different times of an area of shoreline subject to rapid changes due to storm action probably caused this difference in interpretation of shoreline.

in general. These changes were undoubtedly caused by storm action.

COMPARISON WITH NAUTICAL CHARTS

In comparing the sheet with U. S. C. & G. S. Chart No. 1222, published August 1942 on a scale of 1:80,000, the shoreline disagrees considerably. It is recommended that the map compilation supersede the charted information.

Respectfully submitted,

William E. Snyder

William E. Snyder
Photogrammetric Aid

Forwarded by:

Kenneth G. Crosby
Kenneth G. Crosby,
Chief of Party...

in general. These changes were undoubtedly caused by storm action.

COMPARISON WITH NATION CHART

In comparing the sheet with U. S. C. S. Chart No. 1222, published August 1942 on a scale of 1:25,000, the shoreline differences considerably. It is recommended that the map compilation supersede the charted information.

Respectfully submitted,

William E. Snyder

William E. Snyder
Photogrammetric Unit

* All towers shown on the manuscript are shown on the published copies (Proof was examined and approved by office of Chief of Engineers prior to publication). However, the additional towers noted by the field unit apparently were not located and are not shown. Bgg 12/6/45

Forwarded by:

Chief of Party
Kenneth G. Cr...
Unit

FIELD EDIT REPORT
QUADRANGLE T-8183
Project CS-278-C
F. L. Gallen, Chief of Party

1. The land area on this sheet is comprised of the extreme southern tip of the mainland at Cape Charles, Fishermans Island and part of Smith Island. Wooded and marsh areas are about evenly distributed with a small percentage of sand dunes.
11. In view of the fact that Lieut. Col. Edward Dillon, Jr., Commanding Officer at Fort John Custis, has requested that searchlight and observation towers, which are of military importance, be deleted from this sheet, form 567 has not been submitted for these towers as landmarks.
15. The bridge classification was carried out in accordance with the instructions. There are no bridges.
16. The Commanding Officer, Lieut. Col. Edward Dillon, Jr., at Fort John Custis has requested that all towers and structures of military importance, which had been shown by the field inspection party, be deleted. A list of these towers has been noted on the map manuscript. ~~Additional towers and structures~~ have been built and these were not permitted to be shown by the field edit party.
17. Political boundaries were ~~obtained from~~ ^{placed, by the Bureau of Census, on} maps issued by the Virginia State Roads Commission, and were ~~verified~~ ^{by} in the field party. _{on the ground}
18. Geographic names were taken from a special report CS-278-C submitted by A. J. Wraight, Photogrammetric Aid.
46. All additions, deletions, and corrections were made on the map manuscript and transferred to a smooth copy after completion of the field edit work.

The inking of the map manuscript was done in accordance with the following scheme:

<u>FEATURES</u>	<u>COLORS</u>
Additions, bench marks, wye level elevations	Black
Deletions	Green
Drainage features	Blue
Political boundaries	Purple

47. The position and amount of detail on this manuscript is complete and accurate.
48. Horizontal accuracy tests were run in quadrangles T-8174 and T-8175. *An additional test traverse was run from Δ Chesapeake to Δ Wise. all the points are on T-8181 altho Δ Wise is on T-8183. The test indicates that the radial plot meets requirements of the National Map Std.*

There are no contours on this sheet; the maximum elevation, which was on shifting sand dunes, was found to be 14 feet.

Submitted by

Louis Levin
Louis Levin
Photogrammetric Aid

Approved by

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

GEOGRAPHIC NAME LIST FOR T-8183

- ✓ Adams Island
- ✓ Atlantic Ocean
- ✓ Bat Shoals
- ✓ Blackbeards Creek
- ✓ Cape Charles
- ✓ Fishermans Island
- ✓ Fishermans Inlet
- ✓ Fort, ^{John} Custis
- ✓ Inner Middle Ground
- Magothy Bay Channel
- ✓ Middle Ground
- ✓ North Channel
- ✓ Nautilus Shoal
- ✓ National Quarantine
- ✓ Raccoon Creek
- ✓ Smith Island
- ✓ Smith Island Inlet
- ✓ The Isaacs
- ✓ Wm. Knights Shoal
- ✓ Smith Island Beach

NEW GEOGRAPHIC NAME ADDED TO NAME LIST

- ✓ Linen Shoals (Lieut. Col. Edward Dillon, Jr. of Fort John Custis is the authority for this new name, who claims that Linen Shoals is known as such by all local fishermen.)

ROAD CLASSIFICATION FOR MAPS OF ALL SCALES

CLASS	LABEL	STRUCTURE	LOADING
1	Dependable hard-surface heavy duty road.	Concrete, asphaltic concrete bituminous 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.

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

T-8183

Remarks.

Decisions

1		370757-61 USGB
2		"
3		"
4		"
5		"
6		"
7		"
8		"
9		371758 USGB
10		"
11		371759-60
12		"
13		"
14		" USGB
15		"
16		"
17		"
18		"
19		"
20		"
21		
22		"
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No. T-8183

CAPE CHARLES quadrangle
No. 1 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	
Fisherman Island	✓									1
National Quarantine	✓									2
Smith Island Inlet	✓									3
The Isaacs	✓									4
Nautilus Shoal										5
Middle Ground										6
Adams Island	✓									7
Wm. Knight Shoal										8
Smith Island	✓									9
Smith Island Beach	✓									10
Smith Island Coast Guard Station	✓									11
Cape Charles Lighthouse	✓									12
Cape Charles	✓									13
Fisherman Inlet	✓									14
North Channel	✓									15
Inner Middle Ground										16
Blackbeards Creek	✓									17
Bat Shoals										18
Raccoon Creek	✓									19
John Fort Custis	✓									20
Northampton County	✓									21
Linen Shoals										22
Magothy Bay Channel	✓									23
Capeville										24
Beach channel										25
										26
										27
										M 234

Names used in relation to
by Heck 11/21/13

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~~ ^{published quadrangle} 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-Q 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, drive-ways, 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 "blue-line" 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-8183

CAPE CHARLES 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 is no vertical accuracy test in this area. For the nearest horizontal accuracy test see the descriptive report for survey T-8181.

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-509	1:20,000	1852
T-1203	1:20,000	1869-88
T-2675	1:20,000	1905
T-2757	1:6,000	1906-07
T-3835	1:40,000	1921

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:

The details of T-8183 are complete and adequate for chart correction.

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 during the review of this map manuscript.

Reviewed Mar. 19/1943
under direction of D. H. Benson

By W. W. Bellina
per W. M.

Inspected by B. G. Jones 12/6/45

Examined and approved:

Robert W. Jones
Chief, ~~Surveys Branch~~
Nautical chart Br.

~~Chief, Topography Section~~

K. T. Adams
Chief, Div. of Charts
chief, Div. of Photogrammetry
Raymond P. Egan
Chief, Div. of Coastal
Surveys