

# 8117

RESTRICTED

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Form 504  
Rev. June 1941

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

*Air Photographic*  
*Plane Table*  
*Hydrographic*

Sheet

~~Survey~~ No. (Field)

T-8117

MARYLAND

BARREN ISLAND QUADRANGLE

N3815-W7615/7.5

### LOCALITY

State ..... Maryland

General locality ... Chesapeake Bay

Locality ... Barren Island

1942

### CHIEF OF PARTY

Lieut. Comdr. F.L. Gallen

Lieut. Comdr. Kenneth G. Crosby

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Form T-1

## DATA RECORD

T- 8117

Quadrangle (II): BARREN ISLAND

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

Field Office: Salisbury, Md.

Chief of Party: F. L. Gallen

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

Instructions dated (II III): 3/4/42  
3/27/42  
8/13/42Copy filed in Descriptive  
Report No. T- (VI)

Completed survey received in office:

Reported to Nautical Chart Section: ✓

Reviewed: 12/8/42

Applied to chart No.

Date:

Redrafting Completed:

Registered:

Published:

Compilation Scale: 1:20,000

Published Scale:

Scale Factor (III): /./

Geographic Datum (III): N.A. 1927 Datum Plane (III): Mean Sea Level

Reference Station (III): East 1929

Lat.:  $38^{\circ} 20' 28.774''$  (887.2 m) Long.:  $76^{\circ} 15' 32.847''$  (797.7 m) ~~Adjusted~~  
Unadjusted

State Plane Coordinates (VI):

*To be added Later.*

X =

Y =

Military Grid Zone (VI)

Zone "A"

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PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
8823	4-14-42	4:01 P.M.	1:20,000	0.7 ft.
8824	4-14-42	4:03 P.M.	1:20,000	0.7 ft.

Tide from (III): Predicted tables for: Barren Island, Chesapeake Bay, Maryland

Mean Range: 1.4 ft.

Spring Range: 1.6 ft.

Camera: (Kind or source) U.S.C. and G.S. nine lens (focal length  $8\frac{1}{4}$  inches)

Field Inspection by: T. A. Zary

date: June 1942

Field Edit by: L. G. Chambers

date: October 1942

Date of Mean High-Water Line Location (III): April 14, 1942.

Projection and Grids ruled by (III) Washington Office date:

" " " checked by:

date:

Control plotted by: F.H.E.

date: August 1942

Control checked by: C.H.W.

date: August 1942

Radial Plot by: F.H.E., C.H.W., C.A.J.P.

date: August 1942

Detailed by: V.F.S., S.A.G.

date: August & September  
1942

Reviewed in compilation office by: J.A.G.

date: September 1942

Elevations on Field Edit Sheet  
checked by: Salisbury Office

date: October 1942

## STATISTICS (III)

Land Area (Sq. Statute Miles):	1.0
Shoreline (More than 200 meters to opposite shore):	12.0
Shoreline (Less than 200 meters to opposite shore):	-
Number of Recoverable Topographic Stations established:	3
Number of Temporary Hydrographic Stations located by radial plot:	none
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:



DESCRIPTIVE REPORT TO  
ACCOMPANY  
SHEET NO. - T-8117

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GENERAL

The general locality of the area covered by this sheet is Chesapeake Bay, Barren Island and southeast portion of Meekins Neck.

Barren Island consists mainly of marsh and pine. There is some cultivation on Meekins Neck.

The eastern tip of Cedar Point falls within the detail limits of this sheet. Official request that it be included in the detailing of T-8116 was made by Lieut. Comdr. Kenneth G. Crosby, Chief of Party, in a letter to the Director dated September 17, 1942. This request was made due to the fact that available photographs in this office do not cover the Cedar Point area.

CONTROL

Two triangulation stations, Bay 1929 and East 1929, established by Jack Senior, fall within the tracing limits of the sheet and were used for control.

The centers of photographs 8823 and 8824 fall outside of the detail limits. No photograph centers appear within detail limits.

MAIN RADIAL PLOT

A continuous radial plot was laid on August 13 and 14, 1942 to locate radial points, hydrographic and topographic stations, bench marks and photographic centers. The plot extended over the area covered by quadrangles 9, 10, 11, 23, 24, 25 and 37, (Sheets T-8108, 8109, 8110, 8119, 8117 & 8136.)

The usual practice of laying the main radial plot was followed. This consists of plotting and checking the control on the survey sheets and then transferring these points to base grid sheets by matching individual grid squares. The amount of adjustment in each grid square was negligible. The grid sheets were taped to the plotting table and allowed to remain for twenty-four hours before any templates were laid. Prior to laying the templates the base grid sheets were examined for movement and where such movement had occurred the grid sheets were given a final adjustment and all matched grid lines were in excellent agreement.

The plot consisted of twenty-four templates. Templates Nos. 8817 and 8822 showed 14 triangulation stations. Template No. 8825 showed 11 triangulation stations. Templates Nos. 8821, 8823, 8830 showed 10 triangulation stations. Templates Nos. 8818, 8820, 8832, 8833, 9057 and 9058 showed 9 triangulation stations. Template number 8839 showed 8 triangulation stations. The remaining six templates showed from 2 to 6 triangulation stations.

The templates which were most rigidly fixed by triangulation control were laid first. The templates having the least control were laid by rigidly holding well established points as determined by radial intersections of the previous more rigidly controlled templates. Agreement

along the flight lines as well as intersections of radial lines to the adjacent photograph centers was excellent throughout.

No excessive tilt was encountered in any of the templates. Template No. 8831 was omitted because one of the chambers was apparently incorrect. Templates Nos. 8815 and 8833 were omitted because they were superfluous, ample excellent intersections already having been obtained by the surrounding templates.

This radial plot was laid by one Senior Engineering Aid, assisted by two Photogrammetric Aids. The time consumed in laying this plot amounted to 28 man hours.

All of the intersections were transferred from the radial plot to the survey sheets by again matching the grid squares to those of the base grid sheets. The majority of the points were located by common intersections of 4 to 6 radial lines. About 15 percent of the points were located by common intersections of three radial lines only. One percent of the points were located by two radial lines. Further investigation of these last named points is to be made by the individual detailers. No points were picked in triangles of error. Where such triangles of error occurred, the radial lines were transferred on to the survey sheets so that these points may be further investigated by the individual detailers. Triangles of error occurred in less than 0.5% of all points transferred.

It is believed that the excellent agreement of all of the templates along the flight lines, the ample and rigid control by triangulation stations, and the numerous common intersections of radial lines indicate that the positions of the picked points are not more than 0.25 m.m. from the correct location.

Various colored inks were used on the mounted office prints and on the survey sheets to designate triangulation, traverse and topographic stations, etc. The following key is furnished for this information:

#### Photographs (Office Prints)

Triangulation & Traverse Stations.....	2.5 m.m. blue circle
Marked Hydro & Topo Signals.....	2.5 m.m. green circle
Radial Points (Main Plot).....	2.5 m.m. red circle
Radial Points (Additional).....	3.5 m.m. red circle
Photograph Centers.....	Double circle

#### Survey Sheets

Triangulation Stations.....	3.5 m.m. high black triangle
Hydro & Topo Stations.....	2.5 m.m. black circle
Radial Points (Main Plot).....	2.5 m.m. purple circle on back
Radial Points (Additional).....	3.5 m.m. purple circle on back
Radial Points (Questionable).....	3.5 m.m. green circle on back

#### INTERPRETATION OF PHOTOGRAPHS

The photographs were clear and no special trouble was experienced in their interpretation.

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FIELD INSPECTION

The field inspection was made by T. A. Zary in June 1942.

Some difficulty in the classification of vegetation was experienced due to the lack of completeness of field inspection.

NON-FLOATING AIDS TO NAVIGATION

The geographic positions of the non-floating aids to navigation which fall on this sheet are listed on the attached form 567.

JUNCTIONS

This sheet joins Sheet T-8110 on the north, Sheet T-8118 on the East, Sheet T-8137 on the south, and sheet T-8116 on the west. Land junctions are in good agreement.

GEOGRAPHIC NAMES

The geographic names on this sheet were taken from U. S. Coast & Geodetic Survey Chart No. 1224.

LANDMARKS

There are no prominent landmarks on this sheet.

Respectfully submitted,

*Vincent F. Simmons*  
Vincent F. Simmons  
Jr. Engineering Draftsman

Forwarded by:

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

FIELD EDIT DESCRIPTIVE REPORT TO ACCOMPANY  
T-8117 ( BARREN ISLAND QUADRANGLE)  
MARYLAND  
War Mapping Project CS-278-C  
F. L. Gallen, Chief of Party

46. METHODS

The work on this sheet consisted entirely of visual verification of the correct interpretation of the office detailing of the topography in this area and the relocation of the permanent aids to navigation. Standard topographic practices were followed in locating the aids. The location of three were changed. Three cuts were taken to each light.

The location of one tidal bench mark was added to the sheet on Barren Island. Black ink is used to show the additions and corrections in the Salisbury Field Office. Green ink is used to show that detail that should be deleted.

47. ADEQUACY OF THE COMPILATION

It is felt that the amount and location of detail shown is adequate.

48. ACCURACY TESTS

No horizontal or vertical accuracy tests were made on this sheet.

Respectfully submitted,

*L. G. Chambers*  
L. G. Chambers,  
Senior Photogrammetric Aid

Approved:

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



GEOGRAPHIC NAMES LIST  
FOR T-8117

Aarons Cove  
Barren Island  
Barren Island Gap  
Barren Island Point  
Barren Island Thoroughfare  
Cheasapeake Bay  
Cove Point  
Great Cove  
Houston Cove  
Houston Point  
Long Marshes  
Meekins Neck  
Opossum Island  
Tar Bay  
The Big Broads  
The Marshes  
Whitewood Cove

All above names  
approved on Form  
M 234. L.H.



TO BE CHARTED  
TO BE DELETED

STRIKE OUT ONE

**LANDMARKS FOR CHARTS**  
**PERMANENT AIDS TO NAVIGATION**

October 23, 1942

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.

E. L. Gallon	Chief of Party.
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*Chief of Party.*

[illegible]

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." Positions of charted landmarks and nonfloating 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.

## 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 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.



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

TO BE CHARTED }  
TO BE DELETED }  
STRIKE OUT ONE

## LANDMARKS FOR CHARTS

Sheet No. T-8117  
Sept. 23, 1942

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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.

*Kenneth R. Gandy*

Lieut. Comdr. Kenneth G. Crosby

*Chief of Party.*

GENERAL LOCALITY	NAME AND DESCRIPTION	POSITION						METHOD OF LOCATION	DATE OF LOCATION	CHARTS AFFECTED			
		LATITUDE		LONGITUDE		DATUM	HARBOR CHART			INSHORE CHART	OFFSHORE CHART		
		°	'	D. M. METERS	°							'	D. P. METERS
	Tar Bay Entrance Light	38	21	196	76	16	474	N.A. Sex- tant	1942	X		X	1224
	Barnet Island Light	38	21	130	76	15	1373	"	"	X		X	1224
	Tar Bay Light No. 1	38	21	42	76	15	1091	"	"	X		X	1224
	Tar Bay Light No. 2	38	20	1650	76	15	708	"	"	X		X	1224
	These permanent aids to navigation were relocated with the plane table. See the attached form 567												

○ This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." 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.

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	Remarks	Decisions
1		383762
2		"
3		" USGB
4		" "
5		"
6		"
7		"
8		"
9		"
10		"
11		"
12		"
13		"
14		"
15		"
16		"
17		USGB
18		
19	West shore Chesapeake Bay: see instructions	383762
20	Dec. 9, 1942, re insertion of this name.	"
21		
22		
23		
24		
25		
26		
27		
M 234		

# GEOGRAPHIC NAMES

Survey No. T-8117

BARREN ISLAND quadrangle

No. Name on Survey

	A	B	C	D	E	F	G	H	K	
Barren Island										1
Tar Bay										2
Opossum Island										3
Meekins Neck										4
Whitewood Cove										5
Cove Point										6
Great Cove										7
Barren Island Thorofare										8
Barren Island Point										9
Aaron Cove										10
Houston Cove										11
Houston Point										12
Long Marshes										13
The Marshes										14
The Big Broads										15
Barren Island Gap										16
Chesapeake Bay										17
										18
Cedar Point										19
Cedar Point Lighthouse										20
										21
No. 6 Hooper Island										22
										23
										24
										25
										26
										27

L. Heck 12/21/41



## DIVISION OF CHARTS

### SURVEYS BRANCH

Review of Air Photographic Survey T-8117  
(Barren Island Quadrangle) December 1942

This and the adjoining air photographic surveys were made for the preparation of topographic quadrangles for the War Department. The main divisions of the field survey and office compilation in preparing these quadrangles are listed as follows for further reference:

#### FIELD WORK

1. Air photography
2. Field inspection for the identification of control and for the classification and clarification of planimetric details on the photographs
3. Leveling and contouring: Contouring was accomplished directly on prints of the air photographs.

#### PHOTOGRAMMETRIC OFFICES

4. Compilation of all planimetric details and of contours from the photographs onto a celluloid manuscript: This compilation of details was accomplished for all of the war mapping quadrangles in either the Baltimore or Tampa Photogrammetric Office.

#### FIELD WORK

5. Field edit and completion surveys: Upon completion of the manuscripts, prints were furnished to the field party for ground examination of the maps as to completeness. Necessary corrections were made by planetable. These surveys included systematic horizontal and vertical accuracy tests which are recorded in special reports.



## WASHINGTON OFFICE

6. Review: Following the field edit the maps were reviewed in the Washington Office as regards conformance to specifications and to prepare them for smooth drafting.
7. Drafting and reproduction: Smooth color separation drawings were made on metal-mounted blue lines and the quadrangles were printed from these drawings.

The check list containing a record of all work in the Washington Office is filed in the Photogrammetric Section.

The map manuscripts were compiled at the scale of 1:20,000 and include information of interest to this Bureau, not all of which was shown on the printed quadrangles. For this reason a cloth back copy of the rough drawn manuscript will be filed in the vault, together with a cloth back copy of the printed quadrangle.

Contemporary Surveys

None

Previous Surveys

T-8117 has been compared with and supersedes the sections of the following previous surveys which it covers: T-255, T-2564, and T-4445 (1:10,000) 1929.

Nautical Chart 1224 (printed 10-21-42)

T-8117 had not been applied to chart 1224 at the date of this review. A comparison with this chart shows numerous changes in the details of the shoreline.

The field survey and photogrammetric office compilation were complete and T-8117 is ready for smooth drafting and publication.

Reviewed under direction of D.H. Benson

Inspected by B.G. Jones

Robert W. Hovey  
Chief, Surveys Branch

K. T. Adams  
Chief, Section of Topography

J. S. Dorden  
Chief, Division of Charts

G. H. Hude  
Chief, Division of Coastal Surveys

## NAUTICAL CHARTS BRANCH

SURVEY NO. 18117

### 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.