

5757

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic ~~XXXXXXXXXX~~ Air Photographic
Sheet No. T-5757

State Maryland-Virginia

LOCALITY

Potomac River

Broad Creek and Vicinity

Air Photographs taken
1937-8

CHIEF OF PARTY

T. M. Price Jr., Field Records
T. M. Price Section

U. S. GOVERNMENT PRINTING OFFICE: 1934

5757

Applied to chart 560

July 30, 1941

J.H.S.

Re-examined chart 560

6-2-67

H.R.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. T-5757

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. _____

REGISTER NO. T-5757

State MARYLAND - VIRGINIA

General locality POTOMAC RIVER

Locality BROAD CREEK AND VICINITY

Scale 1:10,000 Photos July 8, 1937
Date of survey June 29, 1938, 192

Vessel _____

Chief of Party T. M. Price, Jr., Section of Field Records

Surveyed by _____

Inked by _____

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated _____, 192

Remarks: Compiled on scale of 1:10,000. Scale factor 1.00

Refer to next page for additional data

DATA RECORD T-5757

PHOTOGRAPHS

<u>Nos.</u>	<u>Date</u>	<u>Time</u>	<u>Scale (approx.)</u>	<u>Altitude (approx.)</u>	<u>Tide</u>
✓ 1718-200	July 8, 1937	4:00 P.M.	1:10,000	6,900 ft.	Low
✓ 1728-30	"	"	"	"	"
✓ 2070-74	June 29, 1938	11:40 A.M.	"	"	"

Note see for information from other sources, page 3, for list of weathered supplemental photographs.

Camera: U. S. Coast & Geodetic Survey, Nine Lens, F-8-1/4 in.

Negatives on file Washington Office

Tide tables.
Stage of tide from ~~field examination of photographs.~~ Mean range from tables: 2.2 feet; Spring range: 2.5 ft.

SUPPLEMENTAL SURVEYS

Field Inspection by: T. M. Price, Jr., Nov., 1938 - Jan., 1939.

The details on T-5757 are of the date of the photographs except for the items which were located by supplemental surveys as discussed in detail on pages 3, 4, and 5 following.

Chief of Party - T. M. Price, Jr., Section of Field Records

Projection by - Ruling Machine - Dec. 2, 1938

Projection checked by - Ruling Machine - Dec. 2, 1938

Control plotted by - L. A. McGann, - Dec. 3, 4, 1938

Control checked by - J. W. Gibberman - Dec. 6, 1938

Radial Plot by - L. C. Lande and J. W. Gibberman - Jan. 3-15, 1939

Compiled by - L.A.M., Feb. 10 - April 20, 1939.

Smooth Drafted by: Philadelphia office

Reference Station: Broad, 1928; Datum N. A. 1927

Lat. 38°44'17.630" (543.6m)

Long. 77°01'46.122" (1113.9m) adjusted

State Plane Coordinate System

Virginia North

Maryland

x = 2,419,440

x = 791,591

y = 393,582

y = 329,543

Title:

Maryland - Virginia

Potomac River

Broad Creek and Vicinity

DESCRIPTIVE REPORT AND REVIEW FOR AIR PHOTOGRAPHIC SURVEY T-5757

GENERAL INFORMATION

Both the office and field surveys were executed by members of the Field Records Section of the Washington Office.

The map drawing was compiled by standard radial plot methods using nine lens photographs without templates.

The drafting was first done roughly on celluloid. The smooth drafting was then done on a blue line copy on bristol board.

General information about the project as a whole is contained in the Season's Report.

CONTROL

Triangulation: U. S. C. & G. S. from 1857 to 1934

Traverse: U. S. G. S. in cooperation with the Army, 1920
(positions and descriptions in U.S.G.S.
Bulletin No. 709)

Recoverable Stations of Less than Third Order Accuracy: 2
lights located by radial plot. R. M. for triangulation station Club, located by the angle and distance from the station as given in the description for station Club, 1928.

Station Club, 1928, was lost but the position was recovered sufficiently close from the R. M. to use the station as control in the radial plot.

Rosier Light, 1928, did not fit the radial plot. Investigation showed that this light had been destroyed during the flood March 21, 1936, and was rebuilt March 28, 1936. Although it was said that the light was rebuilt in its former position, the plot indicated that the light had been rebuilt about 6 meters further offshore. An examination of the site showed nothing definite but indicated that the change could easily have occurred. The triangulation station was, therefore, considered lost and a new position of the light obtained by radial plot.

See also note at bottom of page 7
P.T.S. No. 41 S (U.S.G.S. 1918) is destroyed but position was

recovered close enough to use in plot on the few pictures on which it could be identified.

Although the U.S.G.S. stations could not be held in every case, the average of all the photographs showed no error in the position of these stations and the differences that occurred in the individual pictures is believed due to errors that are inherent in the individual photographs themselves.

The following stations, although shown on the sheet, were not looked for in the field and their existence at the present time is therefore not known: Rosier, 1928; Broad, 1928; River, 1928; Hatton 1928; Hog, 1928. Recovery notes for all other stations shown on this sheet have been written.

FIELD INSPECTION AND INTERPRETATION OF PHOTOGRAPHS

Field inspection of control and detail from November, 1938 to January, 1939.

Most of the shoreline was covered by boat, the rest was inspected at frequent intervals from the truck. The interior was inspected by traveling with the truck over a net-work of roads throughout the area. The only areas of any extent not visited are (1) south side of Swan Creek, (2) interior on each side immediately adjacent to Long. 77°04'. These places do not present any difficulties of interpretation.

Notes for locating the control on the photographs and sextant fixes for aids and obstructions are contained in Notebooks No. 1, 2 and 3, Potomac River Project, Air Photographic Survey Files, Washington Office.

All notes for interpreting the detail on the photographs have been written directly on the field prints.

Discussion of streams through woods, contours, piles, houses and fences, for which this survey is not complete is contained in subsequent paragraphs.

MEAN HIGH WATER LINE

The mean high water line is of the date of the photographs as listed on the data record sheet of this report with the following exceptions:

- (1) Streams through woods and not visible on the photographs

were obtained (a) from field inspection by reference to surrounding detail which did show on the photographs, (b) from previous planetable surveys, or (c) from surveys by the Army-U.S.G.S. 1920.

(2) Swan Creek shoreline from photographs taken April 23, 1939.

(3) General. There is no difficulty in the identification of the M.H.W. line except in the marsh areas. Elsewhere the M.H.W. is at the line of brush, grass and trees or 1 to 4 meters outside, as noted at frequent intervals on the field prints. In marsh areas, particularly where the light line has been used, the M.H.W. is indefinite in nature and the line given indicates a very approximate M.H.W. line, or a more or less solid line of vegetation. In this regard it should be borne in mind that the photographs were taken at low water. (except the supplemental 1939 photos, vic. of Swan Creek)

PLOT AND DRAFTING

Standard method of radial plot without templates was used and the control was sufficient for a strong plot. Information regarding the control and general information regarding the drafting is given on page one of this report. The photographic quality and adequacy of the photographs is noted in the seasons report.

The hilly nature of the terrain and the small overlap fore and aft between exposures necessitated numerous radial points. The detailing in the western portion of the sheet was quite difficult and the detailing of houses is less complete than elsewhere. On the sheet.

Contour lines were transferred temporarily from previous surveys to assist in selection of and adjustment between radial points.

Except as noted directly on the map drawing under its title, none but standard symbols were used in the drafting.

BRIDGES

There are no bridges, overhead wires or pipes crossing over navigable waters within the area of this map.

INFORMATION FROM OTHER SOURCES

The field inspection was for the dual purpose of interpreting the photographs and of surveying by ground methods changes since the date they were taken. The detail of T-5757 is derived directly from the photographs and is of the date of the photographs except

for the following:

- (1) From former planetable surveys and maps of other organizations:

A. T-2639 (1903) 1:10,000 (a) Lat. 38°44.65'; Long. 77°01.3'

The piles of two ruined piers shown on the present survey were taken from the position of two piers shown on this previous survey. The piles had been noted during field inspection but had not been accurately located.

(b) The course of Broad Creek from Lat. 38°45.2', Long. 77°00.4' north to the highway. Connection at each end agrees with photographs but obscured by trees on the photos in between.

(c) Lat. 38°45.0', Long. 77°01.0. The course of two streams one running N. by E. and the other N. by W. from here.

(d) Course of stream just N. of Fort Foote

B. T-2620 (1902) 1:10,000

About 1/4 mile of Little Hunting Creek between the head of the marsh and the highway bridge.

C. T-2620 and U.S. Army-U.S.G.S. Terrain Map of Fort Belvoir and Vicinity (1920-26) 1:20,000.

The north branch of Little Hunting Creek and Paul Springs branch where these two streams go through dense woods was taken partly from the two sources noted here.

- (2) From supplemental air photographs:

A. Single lens, 9x9, belonging to Soil Conservation Service, taken April 30, 1937, 1:20,000 scale. No additional information was taken from this source. The photographs were used ^{only} ~~altogether~~ to assist in drafting areas which could be seen, but which were difficult to trace for one reason or another, from the regular set of 9-lens photographs.

B. 9-lens, C. & G.S., 1:10,000 scale, taken April 23, 1939. Two photographs were taken over Fort Washington. The water was almost high at the time they were taken. They have been used for the mean high water line of Swan Creek.

- (3) By field inspection, Nov. 1938 - Jan. 1939.

A. Location of piles of former piers which could not be seen on the photographs was made by estimated reference to

nearby features visible on the photographs.

- B. The boat basin and slip at the east end of the south side of Broad Creek was sketched in on the field photographs by estimate to nearby detail.

COMPARISON WITH CONTEMPORARY SURVEYS

There are no contemporary topographic, hydrographic or graphic control surveys.

COMPARISON WITH PREVIOUS TOPOGRAPHIC SURVEYS

T-895 (1862) 1:5,000
T-902 (1863) 1:10,000
T-916 (1863) 1:10,000
T-1960 (1863-4) 1:31,680

Except for contours and property lines the present survey is adequate to supersede the above previous surveys for the common area.

T-2620 (1902) 1:10,000
T-2638 (1903) 1:10,000
T-2639 (1903) 1:10,000

The present survey is adequate to supersede the above surveys within the common area except for:

(1) Contours (2) certain fence and property lines (3) certain former roads now trails of minor importance (4) certain streams and intermittent streams.

Where a stream of any importance could not be followed on the photographs because of the dense woods, the required portion was transferred from the above surveys or other previous surveys as explained under "Information from other Sources".

(5) Certain piles.

Where the above previous surveys show piles or piers which are not shown on the present survey, sunken piles may still exist and sunken piles should be carried forward at these places until disproved by hydrographic surveys. (This is exclusive of what look like earth piers on the old surveys, and fence lines extending offshore). Sunken piles should be carried forward to replace former piles or piers in the following places:

<u>Lat.</u>	<u>Long.</u>	<u>Shown on former Surveys as</u>
38°43.75'	77°02.5'	Pile at end of former pier
S. shore of Swan Creek		Small pier (not the ^{nearby} fence which is nearly that extends off shore)
38°45.0'	77°01.0'	Pier
38°44.65'	77°01.3'	Small piers
38°44.6'	77°01.4'	Pier
38°45.05'	77°01.1'	<i>Pier ruins</i>
38°45.5'	77°01.6'	Pier. Gone between July, 1937, and June, 1938. (Visible on photos Nos. 1728 and 1729. No piles seen but sunken ones may remain.

COMPARISON WITH EXISTING MAPS OF OTHER ORGANIZATIONS

U.S. Army - U. S. G. S. Terrain Map of Ft. Belvoir and Vicinity (1920-6).
1:20,000

U.S.G.S. Quadrangle, Indian Head (Md. & Va.) 1923, 1:62,500 scale.
U.S.G.S. Washington, D. C. and Vicinity, 1929-32, 1:31,680 scale

The present survey is adequate to supersede the above surveys in the common area except for contours, fence lines, property boundaries and certain minor and intermittent streams.

COMPARISON WITH CHARTS - Chart No. 560 (1:40,000 scale), printing 6/3/38

- (1) In the numerous roads differences, the present survey should be accepted.
- (2) Although the present survey is not entirely complete for buildings, the present survey should be accepted to supersede previous surveys in this respect.
- (3) Although the present survey is not complete for property lines and fence lines all prominent divisions of this kind have been shown and it should supersede previous surveys in this respect.

- (4) Various small streams shown on the chart are not on the present survey, but these are of very minor importance for charting.
- (5) Piles awash N. of Fort Foote ^{Light} were not noticed during field inspection and cannot be seen on the photographs, but may still exist and should continue to be carried.
- (6) Where piers (except earth piers) or piles occur on the present chart and do not appear on the present survey, submerged piles should be carried forward.
- (7) For additional chart changes see the attached chart section.

COMPARISON WITH COAST PILOT

Atlantic Coast Pilot, Section C, 1930 with supplements to Feb., 1937. ✓

Page 174 Little Hunting Creek: The brickyard is gone. The bridge mentioned is in ruins with only the foundations of the former trestles remaining. A new bridge has been constructed (Mt. Vernon Memorial Highway) near the entrance to this creek.

Page 174 Swan Creek: Delete sentence regarding River View.

Page 174-5 Broad Creek: Second sentence should be corrected. There is now a channel to the north side and to the south side. A channel leads along the south side to a private boat basin at the head of the cove. to CP 9/2/40

This report is the only reference that has been made to the Coast Pilot Section in regard to these corrections.

LANDMARKS

Lights and Beacons

- (1) Riverview Wharf Light, located by radial plot from air photographs.

Lat. 38°43'45.84" meters
Long. 77°01'42.323.6" meters

- (2) Fort Foote Wharf Light, located by radial plot; position has been changed since it was located by triangulation in 1928 as Rosier Light. New location:

Lat. 38°46'33.2" meters } Position on end of pier
Long. 77°01'42.250.5" meters }

*Note: 7/24/40 the light was moved again
Oct. 1939 40 yards 200 degrees from the above position.
It is not shown on T5757*

- (3) Aero Beacon (triangulation station, Groveton Airway Beacon, 1934)

Deletions

None

A list of landmarks on Form 567 will be submitted at one time for the entire project.

RECOVERABLE H. & T. STATIONS

There are no ~~H. & T.~~^{Topographic} stations described on Form 524 on this drawing.

The only recoverable ~~H. & T.~~^{Topographic} stations shown are the lights (1) and (2) in the paragraph above and R. M. station Club as noted on Page 1 of this report.

JUNCTIONS

This survey joins with the following air photographic surveys:

T-5756, T-5759, T-5758

The junction with T-5759 has been completed and is satisfactory. Junctions with the other map drawings will be made as those drawings are completed.

GEOGRAPHIC NAMES

Geographic names with the sources as submitted by the field inspection party^{ies} attached on Form M-234 at the end of this report. The same form listing the names as approved by the Washington Office is also attached.

ACCURACY

The probable error in the position of well defined detail is 8 meters; for less well defined detail it is 10-12 meters. In the following exceptions the amount of error is indeterminable:

- (1) Broad Creek and Little Hunting Creek between the head of the marsh and the highway bridge, and all other streams where they flow through dense woods and have been transferred from other surveys.

- (2) The low water line which has been indicated on this sheet, was drawn from the photographic appearance, with some field knowledge, but without detailed field examination of this feature.

ADDITIONAL WORK

This survey lacks contours; it shows part of, but not all of the houses and minor streams; it has indicated only those piles visible at M.H.W.

Except for piles awash or below M.H.W., which must be carried forward from previous surveys, the present survey is complete and adequate for chart compilation.

Combined report and review by:

T. M. Price, Jr., Field Records Section
(In charge of Field Inspection and Office
compilation, Potomac River)

Inspected by:

B. G. Jones
B. G. Jones

9/4/40
8/4

Examined and approved:

T. B. Reed

T. B. Reed,
Chief, Section of Field Records

J. S. Borden

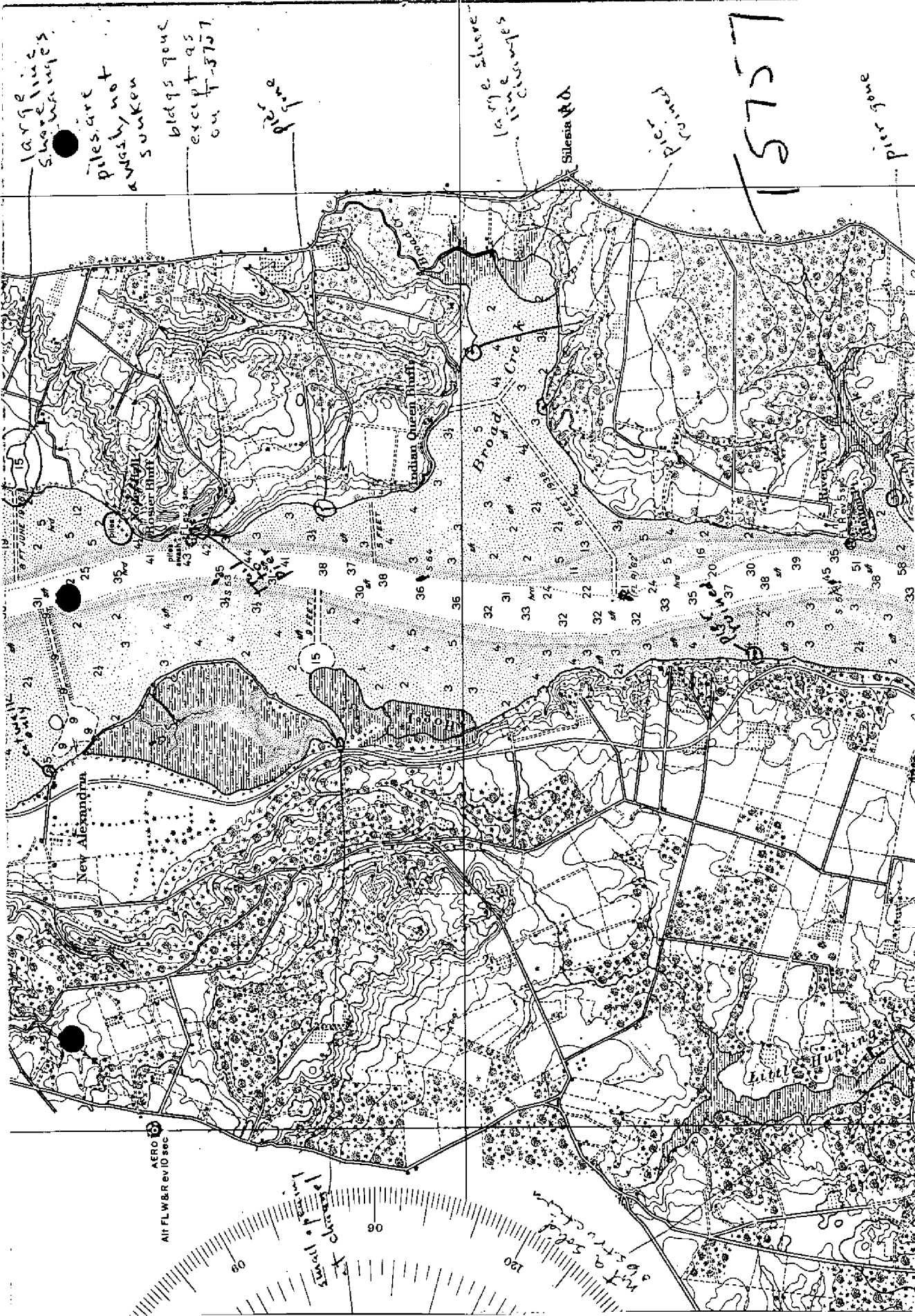
Chief, Division of Charts.

E. K. Green

Chief, Section of Field Work.

E. H. Hude

Chief, Division of H. & T.



large
shore lines
piles are
awash, not
sunk
bldgs gone
except as
on 4-5757

large
shore

large shore
line
piles

Silesia Rd.

Pier
rained

15757

large
shore

AERO
AIR FLW & R rev 10 sec

Scale
0 60 120
feet

not a solid
structure

Remarks

Decisions

1		387770
2		387770
3		387770
4		387770
5		387770
6		387769/770
7		387770
8		387770
9		
10		387770
11		387770
12		387770
13		387770
14		387770
15		387770
16		387770
17		387770
18		387770
19		387770
20		387770
21		387770
22		387770
23		387770
24		387770
25		387770
26		387770
27		387770

GEOGRAPHIC NAMES

Survey No. **T5757**

#1

Name on Survey

	A.	B.	C.	D.	E.	F.	G.	H.	K.	
✓ <u>Fort Washington</u>										1
✓ ✓ <u>Swan Cr.</u>										2
✓ ✓ <u>Hatton Point</u>										3
✓ ✓ <u>Riverview</u>										4
✓ ✓ <u>Broad Creek</u>										5
✓ ✓ <u>Silesia</u>										6
✓ ✓ <u>Indian Queen Bluff</u>										7
✓ <u>Rosier Bluff</u>										8
out ✓ <u>Notley Hall</u>										9
✓ ✓ <u>Belle Haven</u>										10
✓ ✓ <u>New Alexandria</u>										11
✓ ✓ <u>Beacon Field</u>										12
✓ ✓ <u>Groveton</u>										13
✓ ✓ <u>Alexandria Airport</u>										14
✓ ✓ <u>Hog I.</u>										15
✓ <u>Fort Hunt</u>										16
✓ <u>Little Hunting Creek</u>										17
✓ <u>Mt. Vernon Memorial</u>										18
✓ <u>Highway</u>										19
✓ <u>Dyke</u>										20
✓ <u>Warwick</u>										21
✓ <u>Wellington Villa</u>										22
✓ <u>Gum Springs</u>										23
✓ <u>Arcturus</u>										24
✓ <u>Fort Foote</u>										25
✓ <u>Herbert Springs</u>										26
✓ <u>Snowden</u>										27
✓ <u>Wellington</u>										28

Remarks

Decisions

1		387770
2		
3		387770
4		387770
5		387769
6		387769
7		387769
8		387769
9		387770
10		
11		387770
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25		
26		
27		

GEOGRAPHIC NAMES

Survey No. **T5757**

#2

Name on Survey

On Chart No.
On previous survey No.
On U. S. quadrangle Maps
From local information
On local Maps
P. O. Guide or Map
Rand McNally Atlas
U. S. Light List

A, B, C, D, E, F, G, H, K

North Branch

Grassymead

Hunter

Hedge Neck

Cary Branch

Henson Creek

Hunters Mill Branch

Broad Creek (town)

New Glatz

Oaks

Paul Spring Branch

Mt. Vernon Hills

Potomac River

Names underlined in red approved

by L. Heck on 4/28/39

PLANE COORDINATE GRID SYSTEM

Positions of grid intersections used for fitting the grid to this compilation were computed by Division of Geodesy and the computation forms are included in this report.

Positions plotted by H. D. REED, JR

Positions checked by "

Grid inked on machine by "

Intersections inked by "

Points used for plotting grid:

x = 805,000 FT
y = 325,000 FT

x 790,000
y 335,000

x 805,000
y 350,000

x
y

x 775,000
y 335,000

x
y

x 775,000
y 350,000

x
y

Triangulation stations used for checking grid:

- ~~2,419,444 FT - 393,572 FT~~
1791,521 FT → 1. Broad, 1928 (Ref. Sta.) 5. _____
y = 327,543 FT x = 781,522 FT y = 346,606 FT
2. New Alexandria, 1928 6. _____
black tank (on hill) 7. _____
3. _____ 8. _____
4. _____

T-5757

V8. (North) Grid.

M-350

T-5757

PLANE COORDINATE GRID SYSTEM

Positions of grid intersections used for fitting the grid to this compilation were computed by Division of Geodesy and the computation forms are included in this report.

Positions plotted by H. D. REED, JR.

Positions checked by "

Grid inked on machine by "

Intersections inked by "

Points used for plotting grid:

x = 2,435,000 FT
y = 390,000 FT

x 2,420,000
y 400,000

x 2,435,000
y 410,000

x
y

x 2,405,000
y 390,000

x
y

x 2,405,000
y 410,000

x
y

Triangulation stations used for checking grid:
x = 2,449,440 FT - y = 393,582 FT.

1. Broad, 1928 (Ref. Sta.) 5. _____
- x = 2,409,093 FT - y = 410,479 FT
2. New Alexandria, 6. _____
- Black tank (on hill), 1928
3. _____ 7. _____
4. _____ 8. _____