

# 8603

Diag'd on Diag. Ch. No. - 77-5

# 8603

Form 504	
U. S. COAST AND GEODETIC SURVEY	
DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey,	Planimetric, Air Photo-graphic Boundary Survey
Field No.	Office No. T-8603
LOCALITY	
State	Dist. of Columbia-Virginia
General locality	Potomac River
Locality	Memorial Bridge-Highway Bridge
AND VICINITY	
194	
CHIEF OF PARTY	
Louis J. Reed	
LIBRARY & ARCHIVES	
DATE	Feb 10 - 1949



PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
D2162-D2166, Inc.	3-27-46	12:51-12:52	{ 1:7,000 con. 1:4,000 ratio	M.H.W. (Approx.)
D2174-D2179 Inc.	3-27-46	13:01-13:02	"	"
D2209-D2213, Inc.	3-27-46	13:13-13:14	"	"
D2218-D2214, Inc.	3-27-46	13:28-13:29	"	"
D2244-D2248, Inc.	5-13-46	12:06-12:07	1:7,000	M.L.W. (Approx.)
D2275-D2279, Inc.	5-13-46	12:14-12:16	"	"
D2284-D2286, Inc.	5-13-46	12:30-12:32	1:7,000	"
D2293-D2297, Inc.	5-13-46	12:34	"	M.L.W. (Approx.)

**Tide from (III):** Refer to item 30 of the compilation report.  
(filed in descriptive report for T-8600,01)

**Mean Range:**

**Spring Range:**

**Camera: (Kind or source)** "D" Camera U. S. Coast and Geodetic Survey  
(focal length = 12")

**Field Inspection by:** Everett H. Ramey

**date:** June-July, 1946

**Field Edit by:** Stanley J. Hathorn

**date:** Jan.-Mar., 1948

**Date of Mean High-Water Line Location (III):** June-July, 1946

**Projection and Grids ruled by (III)** T. L. Janson

**date:** Aug.-Nov., 1946

" " " checked by: T. L. Janson  
K. N. Maki

**date:** Aug.-Nov., 1946

**Control plotted by:** Lou Reed

**date:** Aug.-Dec., 1946

**Control checked by:** G.B. Dean & J. McDonald

**date:** Aug.-Dec., 1946

**Stereoplanigraph**

~~Redata Plot~~ by: L. Reed & M. G. Misulia

**date:** Aug. 1946-Apr. 1947

**Detailed by:** Lou Reed & M. G. Misulia

**date:** Aug. 1946-Apr. 1947

**Reviewed in compilation office by:** M. G. Misulia

**date:** June 1947

**Elevations on** <sup>Map Manuscript</sup> ~~Field Edit Sheet~~  
**checked by:** S. J. Hathorn

**date:** Mar. 1948

Note:

A description of "The Boundary Line Between the District of Columbia and the Commonwealth of Virginia as Surveyed in 1946 and 1947 by the U.S. Coast and Geodetic Survey" is attached to the Descriptive Report for T-8606.

The following data pertinent to the entire Project Ph-12(46) is filed in the Descriptive Report for T-8600 and T-8601:

1. Public Law 208 - 79th Congress.

An act - To establish a boundary line between the District of Columbia and the Commonwealth of Virginia.

2. Project Instructions, Ph-12(46) dated 9 May 1946.

3. Project Instructions, Ph-12(46), Supplement #1 dated 27 December 1946.

4. Field Inspection Report.

5. Compilation Report.

6. List of Horizontal Control Stations.

Harold R. Brooks  
12 May 1948

## Office Inspection Report

Shoreline Planimetric Survey No. T-8603

Project Ph-12(46)

Survey No. T-8603 is the fourth of a series of seven planimetric map manuscripts, as compiled by the Zeiss Stereoplanigraph, to be field edited in project Ph-12(46).

The map manuscript was carefully inspected for completeness and features of questionable interpretation were called to the field editor's attention on one of the single-weight prints of Survey No. T-8603.

The position of numerous horizontal control stations, which were not used as control for the compilation, have been plotted onto the map manuscript during the office inspection. Four of these stations are D. C.-Va. boundary Witness Marks which were established by the Division of Geodesy in 1946. The description of these stations as noted on Form 525 are to be checked during the field edit. The mean high-water line in the immediate vicinity of all these newly plotted stations, is to be checked during the field edit in accordance with item 19 in the instructions for Project Ph-12(46)/Field and Office, Supplement 1, dated 27 December 1946.

Several additional control stations for which a search was made, during the recovery of control for this project, but could not be found, were plotted onto the map manuscript. Because of their proximity to other control no detailed search was made. These stations are recommended to be searched for because of the availability of Survey No. T-8603 which should greatly localize the extent of the search and thus make recovery much simpler.

All of the newly plotted horizontal control stations were called to the field editor's attention on the single-weight print noted previously, accompanied by pertinent notes.

The materials for the field edit of Survey No. 8603 are being forwarded to the Administrative Planning Section, together with a copy of this report.

Michael G. Misulia  
June 18, 1947

Field Edit Report  
Project Ph-12(46)  
T-8603

46. Methods:

The field edit was completed in accordance with project instructions dated 9 May 1946 and 27 December 1946, and general field edit instructions dated 24 August 1945.

All deletions were made directly on the field edit sheet in green ink. Additions and corrections in red ink, wherever possible, were made on the field edit sheet. All additions and corrections made on the photographs are noted on the field edit sheet along with the photograph number.

New detail was located by planetable or tape within the minimum allowable limits for horizontal error.

Violet ink was used to indicate points which were checked for horizontal accuracy.

47. Adequacy of Compilation:

The map manuscript was complete and adequate except for construction changes, errors in shoreline mentioned in paragraph 48, new constructions, minor corrections shown on field edit sheet; and incomplete detail around Tomb of Unknown Soldier.

Detail around the Tomb of Unknown Soldier is incomplete. Since no field photographs were available this far inshore, a map of Arlington National Cemetery (12-15-46) is submitted. However, this area is well outside the sheet limits shown on the control indexes.

Separate plans showing the location of the new highway bridge under construction just upstream of the Potomac River railroad bridge are submitted. Pier construction and grading at the Washington end of the bridge was in progress at the time of field edit.

48. Accuracy Tests:

The mean-high-water-line was checked by occupying with planetable all the plotted horizontal control stations not used in control of the compilation.

The entire mean-high-water-line along the Washington shore upstream of the Tidal Basin Inlet was found to be in error by approximately 10 feet. The mean-high-water-line is marked by a concrete wall that is easily discernible on the photograph. The written description of triangulation station FB<sub>2</sub>, No. 1332 (U.S.E.) 1944 was verified and the plotted description of the station checked from adjacent horizontal control stations as noted on the field edit sheet. Since, the office compiler was unable to hold this station to other control, this error, in the mean-high-water-line is believed to be one of compilation control. Sufficient checks were made along this line to facilitate an adjustment of the mean-high-water-line.

A short section of the mean-high-water-line south of the Virginia end of Memorial Bridge was corrected where it is believed that overhanging trees resulted in a misinterpretation of the mean-high-water-line.

Two other short sections of shoreline obscured by overhanging trees were corrected on the photographs, and the photograph numbers noted on the field edit sheet.

Except for the areas mentioned, it is felt that the sheet is within the horizontal accuracy requirements.

#### 49. Woods:

Woodland cover was reclassified in accordance with Photogrammetry Instructions No.15 dated 16 June 1947.

#### 50. Future Changes:

It is reasonable to expect small amounts of earth fill to be wasted along the mean-high-water-line around the Washington National Airport whenever excavation occurs elsewhere on the airport. This is in line with an anticipated large-scale construction program that will probably fill in the river enough to provide additional runways.

#### 4. Horizontal Control:

All triangulation stations not recovered by the field inspection party were searched for and reported on Form 526.

Two National Park Service traverse stations (monumented with Public Buildings and Public Parks disks)



were recovered and Form 525 was submitted for both stations.

(All horizontal control recovered during field edit is shown on the project horizontal control index.)

5. Vertical Control:

All bench marks not recovered by the field inspection party were searched for and reported on Form 685A. All bench marks recovered in good condition were identified (approximately) on the photographs.

(Bench marks recovered during field edit, along with the photographs used for identification, are shown on the project vertical control index.)

14. Road Classification:

Roads are classified in accordance with Photogrammetry Instructions No. 10 dated 14 April 1947, and Amendment, dated 24 October 1947.

Street names on the field edit sheet and on the map of Arlington National Cemetery were verified by a field check.

18. Geographic Names: 214 ✓

No systematic names investigation was made except where requested by the office reviewer. *List of approved names attached.*

Submitted  
15 April 1948

  
Stanley J. Hathorn  
Photogrammetrist

# GEOGRAPHIC NAMES

Survey No.

T-8603

1 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	
✓ Virginia									USCB	1
✓ District of Columbia			✓						"	2
Washington			✓						"	3
✓ Potomac River and Georgetown Channel				✓					"	4
Pennsylvania (R.R.)				✓						5
✓ Richmond, Fredericksburg and Potomac				✓						6
✓ Southern										7
U.S. No. 1				✓						8
U.S. No. 50				✓						9
✓ Arlington Memorial Bridge				✓						10
✓ Highway Bridge (to be replaced)				✓						11
Highway Bridge (under construction)				✓						12
Railway Bridge				✓						13
✓ East Potomac Park				✓						14
✓ Jefferson Memorial	not shown									15
✓ West Potomac Park				✓						16
Tidal Basin				✓						17
✓ Lincoln Memorial				✓						18
Reflecting Pool				✓						19
Riverside Drive				✓						20
French Drive				✓						21
Water Gate				✓						22
<del>Marble House Building Annex</del>										23
<del>Navy Building Annex</del>										24
Department of the Navy Temporary Buildings				✓					(both of these buildings are occupied by the Navy Dept.)	25
Independence Avenue					✓					26
										27

# GEOGRAPHIC NAMES

Survey No.

T- 8603

2

Name on Survey

	A	B	C	D	E	F	G	H	K	
	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		
<u>Lee Boulevard</u>	✓									1
<u>Radnor Heights</u>	✓									2
<u>N. 14th St. N.</u>	✓									3
<u>N. 12th St. N.</u>	✓									4
<u>N. Oak St.</u>	✓									5
<u>N. Nash St.</u>	✓									6
<u>Ord and Weitzel Gate</u>	✓									7
<u>Ord and Weitzel Drive</u>	✓									8
<u>Arlington National Cemetery</u>	✓									9
<u>Arlington Ridge Road</u>	✓									10
<u>Sheridan Gate</u>	✓									11
<u>Sheridan Drive</u>	✓									12
<u>Sherman Drive</u>	✓									13
<u>Schley Drive</u>	✓									14
<u>Memorial Avenue</u>	✓									15
<u>Arlington Memorial Gateway</u>	✓									16
<u>Lee Mansion</u>	✓									17
<u>Lee Drive</u>	✓									18
<u>Custis Walk</u>	✓									19
<u>Weeks Drive</u>	✓									20
<u>McClellan Gate</u>	✓									21
<u>McClellan Drive</u>	✓									22
<u>Grant Drive</u>	✓									23
<u>Wilson Drive</u>	✓									24
<u>Creek Walk</u>	✓									25
<u>Farragut Drive</u>	✓									26
<u>Memorial Drive</u>	✓									27
<u>Tomb of the Unknown Soldier</u>	✓									28



# GEOGRAPHIC NAMES

Survey No. T-8603

3

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

Otis Place

✓

1

Wheaton Place

✓

2

Roosevelt Drive

✓

3

Treasury Gate

✓

4

Patton Drive

✓

5

MacArthur Circle

✓

6

Jessup Drive

✓

(not Jesup)

7

Porter Drive

✓

8

Miles Drive

✓

9

McKinley Drive

✓

10

Dewey Drive

✓

11

Clayton Drive

✓

12

South Gate

✓

13

South Gate Road

✓

14

15

16

Boundary Channel

✓

USCB

17

Columbia Island

✓

"

18

19

Navy and Marine Memorial

✓

20

Mt. Vernon Memorial Highway

✓

21

Jefferson Davis Highway

✓

22

Boundary Drive

✓

23

Arlington Farms

✓

24

Fort Myer South Post

✓

25

The Pentagon

✓

26

National Defense  
Lagoon

(part of Boundary Channel: no precedent for calling  
it Arlington Lagoon)

27

M 234



# GEOGRAPHIC NAMES

Survey No.

T-8603

4

Name on Survey

	A	B	C	D	E	F	G	H	K	
<u>Washington Boulevard</u>		✓								1
<u>Navy Annex</u>										2
<u>Columbia Pike</u>		✓								3
<u>S. Oak St.</u>		✓								4
<u>S. Oak St.</u>		✓								5
<u>S. Orme St.</u>		✓								6
G.										
<u>Henry/Shirley Memorial Highway</u>			✓							7
<u>Army and Navy Drive</u>			✓							8
<u>South Pentagon Road</u>			✓							9
<u>S. Nash St.</u>			✓							10
<u>S. Lynn St.</u>			✓							11
<u>S. Fern St.</u>			✓							12
<u>S. Eads St.</u>			✓							13
<u>Gravelly Point</u> ✓	(apply at northerly position; shoreline has been much modified, but this is about the original position---it is here on chart 560)									14
										15
<u>Roaches Run Bird Sanctuary</u> //	(this is official name, secured from Nat. Cap. Parks Office)									16
(this includes both land and water area, so that no separate name is needed for the lagoon)										17
										18
										19
<u>Bureau of Yards and Docks</u>					✓					20
<u>State Street</u>					✓					21
<u>Avenue of Treas</u>					✓					22
<u>Memorial Bridge Camp (Inactive)</u>					✓					23
<u>Site of Veterans Administration Hospital</u>					✓					24
<u>Pentagon Sewage Disposal Plant</u>					✓					25
<u>Marine Barracks Henderson Hall</u>					✓					26
<u>National Military Establishment</u>					✓					27

# GEOGRAPHIC NAMES

Survey No.

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							
Naval Quarters K					✓											1
Mall Entrance					✓											2
River Entrance					✓											3
Pentagon Lagoon Yacht Basin					✓											4
																5
																6
																7
																8
																9
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Division of Photogrammetry  
Review Report of  
Planimetric Map Manuscript T-8603

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

26 CONTROL:

The following horizontal control stations listed in the control summary for Project Ph-12(46) attached to the descriptive report for T-8600 and T-8601 were not recoverable and are considered lost:

Arlington, 1935  
E. P. P. 1 (P. B. & P. P.) 1934  
FB, 1913  
To (U. S. E.) 1924  
Red Tank, 1913  
Start, 1935

The plotted position for station FB2 (U. S. E.) No. 1331, 1944 is correct according to the U. S. E. coordinates. On the control identification card for this station an error has been made in the measurement to the substitute station and an error of 10° in reading or recording the angle is evident.

Two recovered National Park Service 1932 traverse stations, numbers 3240 and 31688 and one 1946 traverse station, number 46015, were plotted on the map manuscript.

Twelve bench marks, recovered by field inspection, were shown on the map manuscript with elevations to the nearest one-tenth foot.

The elevations of the U. S. E. bench marks on this map manuscript were referred to the Low-Water Datum. These elevations have been adjusted to the Sea-Level Datum of 1929.

28 DETAILING:

The new east highway bridge piers were under construction at the time of field edit and only the centerline of the bridge site is shown. The position of the centerline was determined from coordinates taken from the Control Map for Proposed Highway Bridges, Washington D.C. dated August 20 1946.

~~43 COMPARISON WITH PREVIOUS SURVEYS:~~

37. BOUNDARY:

The District of Columbia - Virginia boundary line at the mouth of Roaches Run is the outer or riverside wall of the culvert, which runs underneath the Mt. Vernon Memorial Highway. This applies to T-8604 following final sheet layout.



43. COMPARISON WITH PREVIOUS SURVEYS:

T-910A, 1:15,000, 1863-74  
T-1025, , 1864  
T-1026, , 1864  
T-1461, , 1878  
T-2023, 1:4800 , 1891  
T-2028, 1:4800 , 1891  
T-2029, 1:4800 , 1891  
T-2621, 1:10,000, 1902  
T-4091, 1:10,000, 1924  
T-5756, 1:10,000, 1937-38-40  
T-1960, 1:31,680, 1863-64

Common features on these surveys are superseded by the map manuscript in all common areas.

44 COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLE:

Washington and vicinity, Md.-Va.-D.C., 1:31, 680  
U. S. G. S. 1913-15 (surveyed), 1941-42 (revised).

45 COMPARISON WITH NAUTICAL CHARTS:

Chart No. 560, 1:40,000, 12/1/47  
Washington Harbor, 1:20,000 (insert).

51 APPLICATION TO NAUTICAL CHARTS:

This map manuscript has not been applied to nautical chart 560.

Reviewed by:

Reviewed under direction of:

*K. N. Maki 6/18/48*

K. N. Maki  
Cartographer (Phot.)

*S. V. Griffith*

S. V. Griffith *E. N. M.*  
Chief, Review Section

Approved:

*B. J. Jones 1/49*

Technical Assist. to the Chief  
Div. of Photogrammetry

*H. P. Edmonson*

Chief, Nautical Chart Branch  
Division of Photogrammetry

*K. T. Adams*

Chief, Div. of Photogrammetry

*C. K. Green*

Chief, Div. of Coastal Surveys