9808— 9814 INCL

9808-9814 INCL.

Diag. Cht. No. 77-5

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC

Field No. Ph-70A(51) Office No. T-9808-14 Incl

LOCALITY

State VIRGINIA

General locality FAIRFAX

Locality PENDER

194/ 51

CHIEF OF PARTY

H. A. Paton, Chief of Field Party.

H. A. Paton, Baltimore PhotogrammetricOffic

LIBRARY & ARCHIVES

DATE Dec 28-1951

B-1870-1 (1)

DATA RECORD

T-9808 to
T-9814 incl.

Project No. (II): Ph-70A(51) Quadrangle Name (IV):

Field Office (II): Baltimore, Md. Chief of Party: H.A.Paton

Photogrammetric Office (III): Baltimore, Md. Officer-in-Charge: H.A.Paton

Instructions dated (II) (III): 9 March 1951 Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Graphic and Kelsh Plotter

Manuscript Scale (III): 1:4,800 Stereoscopic Plotting Instrument Scale (III): 1:4,800

Scale Factor (III): None

Date received in Washington Office (IV): May, 1951 Date reported to Nautical Chart Branch (IV):

Applied to Chart No. Date: Date registered (IV): 11-27-51

Publication Scale (IV): Publication date (IV):

Geographic Datum (III): N.A. 1927 Vertical Datum (III): MSL

Mean sea level except as follows:
Elevations shown as (25) refer to mean high water
Elevations shown as (5) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): PENDER, 1943

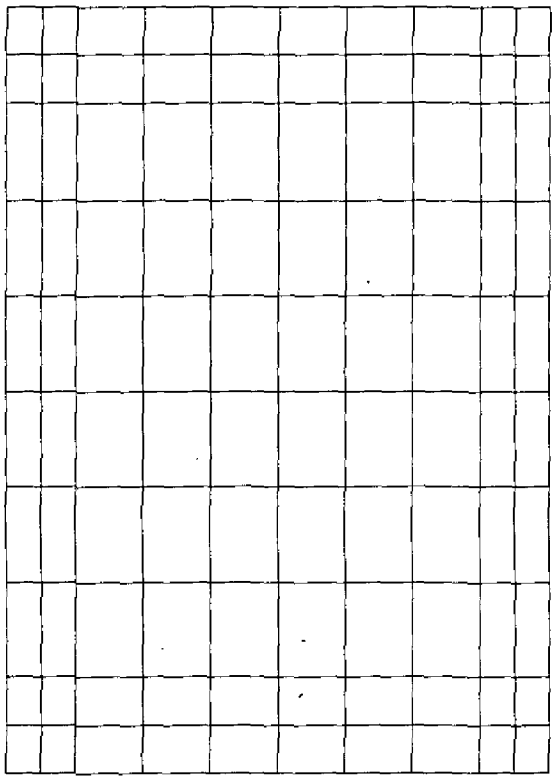
Lat.: 38° 52' 55.073"(1698.2m) Long.: 77° 22' 13.973"(336.8m) Adjusted

Plane Coordinates (IV): State: Va. Zone: N.(Lambert)

Y= X=

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office, or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.



Areas contoured by various personnel
(Show name within area)
(II) (III)

See field records and Kelsh
Plotter work sheets

DATA RECORD

Field Inspection by (II): Partial – by various parties Date: Jan-April 1951

Planetable contouring by (II): " " " " Date: " " "

Completion Surveys by (II): " " " " Date: " " "

Mean High Water Location (III) (State date and method of location):

Projection and Grids ruled by (IV): T.L.J. Date: 2-13-51

Projection and Grids checked by (IV): H.D.W. Date: 2-15-51

Control plotted by (III): J.Honick Date: 2-26-51

Control checked by (III): R.M.Whitson Date: 2-27-51

Radial Plot ~~[illegible]~~ ~~[illegible]~~ by (III): F.J.Tarcza Date: 3-22-51

Stereoscopic Instrument compilation (III):

Planimetry Date:

Contours Wash. Office Date:

Manuscript delineated by (III): Date: 5-7-51

D.M.Brant R.R.Hartley A.C.Rauck L.A.Senasack
J.Y.Councill J.Honick J.C.Richter R.M.Whitson
J.D.McEvoy

Photogrammetric Office Review by (III): Date:
R.Glaser 5-8-51

Elevations on Manuscript
checked by (II) (III): R.Glaser Date: 5-8-51

M-2618-12(4)

Camera (kind or source) (III): U.S.C.& G.S. type "O" camera-focal length, 6"
U.S.C.& G.S. type "D" camera-focal length, 12"

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
51-0-36 to 51-0-60 incl			1:4800	
51-0-99 to 51-0-123 incl.				
51-0-130 to 51-0-154 incl.				
51-0-163 to 51-0-189 incl.				
51-0-206 to 51-0-225 incl.				
51-D-43, 45, 47, 48, 50, & 66				
51-D-68 to 51-D-73 incl.				
51-D-125 to 51-D-133 incl.				
51-D-167 to 51-D-174 incl.				
51-D-327 and 51-D-329				

Tide (III)

	Ratio of Ranges	Mean Range	Spring Range
Reference Station:			
Subordinate Station:			
Subordinate Station:			

Washington Office Review by (IV): Charles Hamrick Date: 31 May 1954

Final Drafting by (IV): Date:

Compilation ~~Drafting~~ verified for reproduction by (IV): S Steiffler Date: 5/22 51

Proof Edit by (IV): S Steiffler Date: 5/24 51

Land Area (Sq. Statute Miles) (III): 26.7

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

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

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 26 Recovered: 17 Identified: 17

Number of BMs searched for (II): 7 Recovered: 6 Identified: 6

Number of Recoverable Photo Stations established (III): none

Number of Temporary Photo Hydro Stations established (III): none

Remarks:

Summary to Accompany Descriptive Report
for T-9808 to T-9814 incl.

Topographic maps T-9808 to T-9814 inclusive comprise project Ph-70A(51); it is in the vicinity of Pender about 3 miles west of Vienna, Virginia. The field operations consisted of the recovery and establishment of horizontal and vertical control, limited field inspection, and plane-table work for the whole area except for a narrow strip along the west edges of sheets T-9812 and T-9814, and the east edges of sheets 9811 and 9813, which was done by the Kelsh Plotter. All the sheets were field edited.

This special work was initiated by and executed for the CAA within the limits of the area designated by them, and chiefly for the purpose of obtaining 5-foot contour intervals at a scale of 1:4800. These maps will not be published. Each sheet is 2½' in latitude and 2½' in longitude.

No specific field project instructions were written; the organization of the work, including general supervision and other related phases, were directed by the Washington Office. No field inspection, field edit, or other special reports were submitted from the field.

The registered copies under T-9808 to T-9814 will include one cloth-back copy for each map manuscript.

Charles Hanavich
Charles Hanavich

PHOTOGRAMMETRIC PLOT REPORT

PROJECT PH-70A(51)

SURVEYS T-9808 to T-9814, incl.

21. AREA COVERED

This radial plot covers the areas of Surveys T-9808 to T-9814, inclusive, located west of Fairfax, Virginia. All of these are topographic surveys.

22. METHOD - RADIAL PLOT

Map Manuscripts - The map projections are on vinylite sheets, at a scale of 1:4800, ruled with polyconic projections in black,and Virginia North (Lambert) grid in red. No base sheets were furnished.

The control stations and substitute stations were plotted using beam compass and meter bar.

A sketch showing the layout of surveys, distribution of control and photograph centers, and a list of control stations are attached to this report.

Photographs - All photographs used in this radial plot are single lens photographs taken with the Type O camera, focal length 152.37 mm (6 inches). These are ratioed prints at a scale of 1:4800, the contact scale being about 1:8000. One hundred and twenty-two (122) photographs were used, numbered as follows:

51-0-36 to 51-0-60, incl.
51-0-99 to 51-0-123, incl.
51-0-130 to 51-0-154, incl.
51-0-163 to 51-0-189, incl.
51-0-206 to 51-0-225, incl.

There was another flight of photographs furnished for the western edge of this radial plot, 51-0-70 to 51-0-90, incl. Since the limit of compilation is east of the survey limits as ruled and the photographs used adequately cover the required area of compilation, this flight was not prepared for use.

All symbols used on the photographs are standard as prescribed in the Topographic Manual.

Templets - Acetate templets were made of all photographs used. Several photographs were checked by using the master templet furnished by the Washington Office. The errors due to paper and film distortion were found to be very small, or negligible and it was decided to omit the use of a master templet in order to expedite the making of templets due to the urgency of the work.

Closure and Adjustment to Control

Vinylite base sheets, previously furnished for other projects were adapted for use in this radial plot. A 2000 foot grid was ruled on the map manuscript. This does not correspond to the base grid but it was possible to use every fifth grid line for matching the base sheets.

The radial plot was begun on the middle flight, photographs 51-0-113 to 51-0-120, where there was a fix in two areas on this flight. It was found that considerable adjustment was necessary in order to hold all control stations even on this flight where good control was available. Other flights required more time and adjustment to obtain a satisfactory radial plot. A large number of photographs show evidence of tilt. A tilt determination was made on one, 51-0-55, and a tilt of 1° 50' was determined. About 20% of the photographs were tilted by what appears to be a similar amount, or about 2°. Many others show evidence of smaller amounts of tilt. This made it difficult to construct an accurate radial plot. In two areas, near the junction of Surveys T-9809 and T-9811, and on the western side of Survey T-9812, the tilted photographs made it impossible to get good intersection of radial lines although adequate control was available. In the latter area, three consecutive photographs, 51-0-108 to 51-0-110 were considerably tilted. All control stations were held in the radial plot. The northern part of Survey T-9808 and the southern half of Survey T-9814 are known to be weak due to lack of control. However, in these areas the radial plot was extended beyond the designated limits of compilation to include all photographs available. The northeast area of Survey T-9810, also outside the area of compilation, may be weak too, though the radial plot appears good.

23. ADEQUACY OF CONTROL

Control stations furnished were adequate for a normal radial plot. However, with the large number of tilted photographs, there was difficulty in obtaining a satisfactory radial plot in some areas where there were gaps between control stations. All control stations were held in this plot, though some adjustment was necessary to hold several of them. A small error in control could not be isolated with the photography available and no serious discrepancies were found. Outside the area designated for compilation (as indicated in red on sketch) the radial plot was extended in three areas, without adequate control, to include all office photographs furnished within the limits of the surveys.

24. SUPPLEMENTAL DATA

No graphic control surveys were available for use in this radial plot.

25. PHOTOGRAPHY

The photographic coverage is adequate and definition of photographs is good. There was snow on the ground at time of photography. There is evidence of tilt in a large number of photographs. About 20% of them appeared considerably tilted, probably about 2°. A tilt determination, made on one of these, 51-0-55, showed 1 ° 50' of tilt. A few appeared to be tilted to a greater degree than this. With photographs taken at a low altitude (about 4000') and at a large scale, the relief of terrain in this area causes considerable displacement. In tilted photographs this

introduces lateral errors in radial lines which caused difficulty in laying a good radial plot. Due to urgency of the work, it was considered impractical to make tilt determination on all tilted photographs.

Respectfully submitted

Frank J. Tarcza

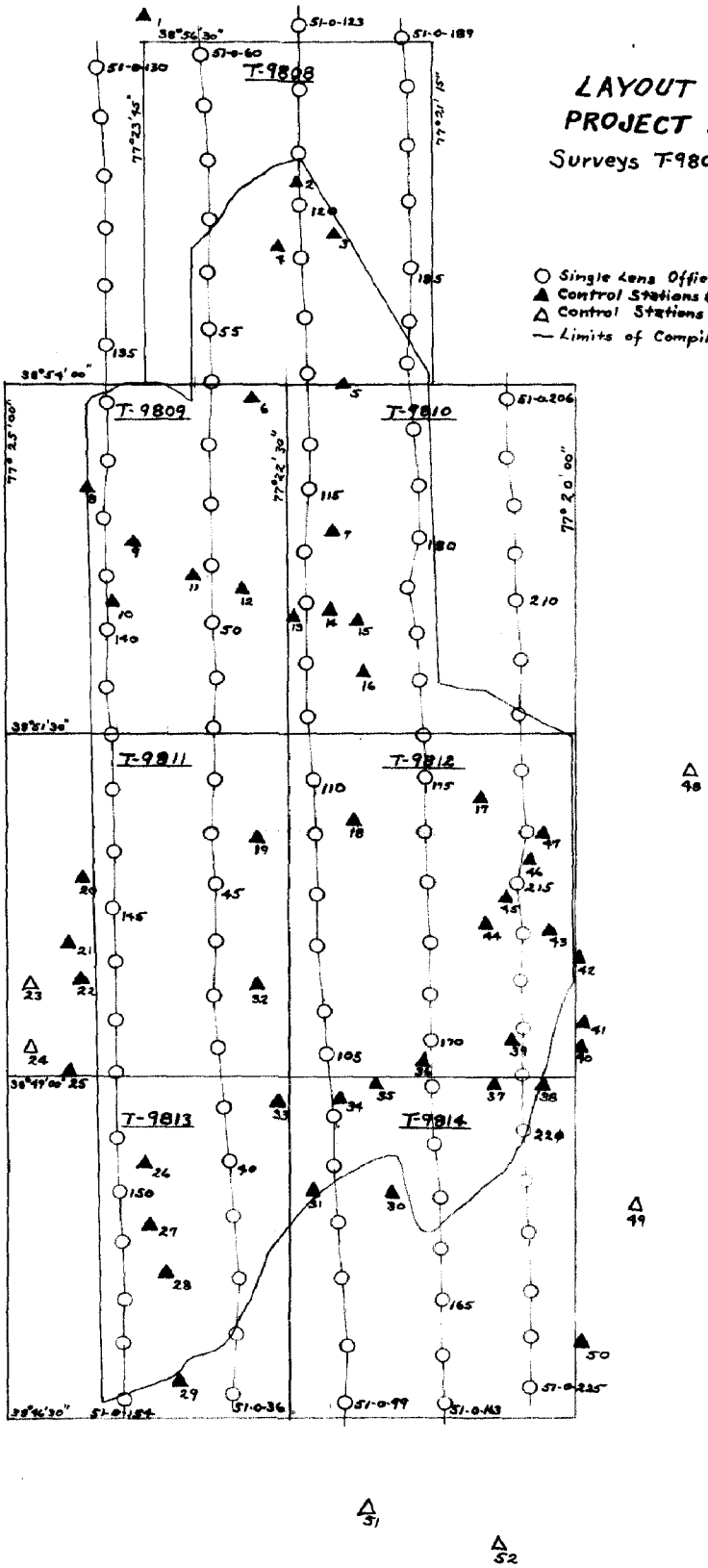
Frank J. Tarcza
Cartographic Engineer

NO.	STATION	IDENTIFICATION
1.	32 WSM 400, (USGS), 1949	Sub. Pt.
2.	33 WSM 431, (USGS), 1949	Sub. Pt. No. 3
3.	33 WSM " "	Sub. Pt. No. 2
4.	33 WSM " "	Sub. Pt. No. 1
5.	34 WSM 481, (USGS) 1949	Sub. Pt. No. 2
6.	34 WSM 481 (USGS) 1949	Sub. Pt. No. 1
7.	PENDER, 1943	Sub. Pt.
8.	CONTROL POINT 70A-6	Direct
9.	CONTROL POINT 70A-4	Direct
10.	CONTROL POINT 70A-5	Direct
11.	CONTROL POINT 70A-3	Direct
12.	CONTROL POINT 70A-2	Direct
13.	CONTROL POINT 70A-1	Direct
14.	PENDER LOOKOUT TOWER, 1943	Direct
15.	PENDER LOOKOUT TOWER, 1943	Sub.Pt.
16.	PTS. NO.6 (USGS) 1949	Sub.Pt.
17.	TT4 HDW (USGS) 1948	Sub.Pt.
18.	TT6 RCD (USGS) 1949	Sub.Pt. No.2
19.	TT6 RCD (USGS) 1949	Sub.Pt. No.1
20.	TT 5 HDW (USGS) 1948	Sub.Pt.
21.	CONTROL POINT 70A-7	Direct
22.	CONTROL POINT 70A-8	Direct
23.	CONTROL POINT 70A-9	Direct (Not used)
24.	CONTROL POINT 70A-10	Direct (Not used)
25.	CONTROL POINT 70A-11	Direct
26.	CONTROL POINT 70A-12	Direct
27.	CONTROL POINT 70A-13	Direct
28.	CONTROL POINT 70A-14	Direct
29.	D 232 (USGS) 1949	Sub.Pt.
29.	CONTROL POINT 70A-15	Direct (Not used)
30.	TT4 RCD (USGS) 1949	Sub.Pt.
31.	CONTROL POINT 70A-24	Direct
32.	TT5 RCD (USGS) 1949	Sub.pt.
33.	CONTROL POINT 70A-17	Direct
34.	CONTROL POINT 70A-18	Direct
35.	CONTROL POINT 70A-19	Direct
36.	CONTROL POINT 70A-20	Direct
37.	CONTROL POINT 70A-23	Direct
38.	CONTROL POINT 70A-22	Direct
39.	CONTROL POINT 70A-21	Direct
40.	CONTROL POINT 70A-16	Direct
41.	CONTROL POINT 70A-31	Direct
42.	CONTROL POINT 70A-25	Direct
43.	CONTROL POINT 70A-26	Direct
44.	CONTROL POINT 70A-27	Direct
45.	CONTROL POINT 70A-28	Direct

No.	Name	Identification
46.	CONTROL POINT 70A-29	Direct
47.	CONTROL POINT 70A-30	Direct
48.	TT 3 HDW (USGS) 1948	Sub. Pt. (Not used)
49.	PTS NO. 12 S (USGS) 1920	Sub. Pt.
50.	FAIRFAX, 1943	Sub. Pt.
51.	TT3 RCD (USGS) 1949	Sub.pt. (Not used)
52.	TT2 RCD (USGS) 1949	Sub.Pt. (Not used)

LAYOUT SKETCH
PROJECT PH-70A(51)

Surveys T-9808 to T-9814, incl.



Photogrammetry

MAP T-9808 PROJECT NO. Ph-70-A(51) SCALE OF MAP 1:4,800 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
33 WSM 431	USGS Fairfax	N.A. 1927	38 55 27.52				848.63	(1001.58)		
(USGS) 1949	Quad P.11	Pre.Ajd.	77 22 21.30				513.10	(932.24)		
*32 WSM-400 (USGS)	"		38 56 42.74				1317.97	(532.25)		
1949	P.11	"	77 23 36.41				876.83	(568.09)		
SUB PT. 32 WSM-			38 56				1226.77	(623.45)		
400			77 23				1011.5	(433.4)		
SUB. PT. No. 2 34			38 54				2.4	(1847.8)		
WSM - 481			77 22				122.3	(1323.6)		
SUB.PT. NO. 1 33			38 55				145.7	(1704.5)		
WSM 431			77 22				154.0	(1291.3)		
SUB PT. No.2			38 54				1617.6	(232.6)		
33 WSM 431			77 22				918.8	(526.5)		
SUB. PT. No. 3			38 55				853.8	(996.4)		
33 WSM 431			77 22				483.0	(962.3)		
* Beyond Survey	Limits									

1 FT. = .3048006 METER

M-2388-12

COMPUTED BY: J. Steinberg R. Hartley DATE 2/23/51 3/8/51 CHECKED BY: R.M. Whitson DATE 2-26-51

Photogrammetry

MAP T-9809 PROJECT NO. Ph-70-A(51) SCALE OF MAP 1:4800 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
34-WSM-481 (USGS) 1949	USGS Fairfax Quad	N.A. 1927 Pre.Adj.	38 53 52.62				1622.59	(227.57)		
			77 22 53.03				1277.92	(167.96)		
SUB. PT. No. 1 34 WSM-481			38 53				1611.1	(239.1)		
			77 22				1274.7	(171.2)		
CONTROL POINT 70-A-2	Traverse	X=	2,318,394				1208.1	(489.5)		
		Y=	441.736				529.1	(80.5)		
CONTROL POINT 70-A 3	"	X=	2,316,142				43.3	(566.3)		
		Y=	442,879				267.9	(341.7)		
CONTROL POINT 70-A.4	"	X=	2,313,745				531.9	(77.7)		
		Y=	444,027				8.2	(601.4)		
CONTROL POINT 70-A.5	"	X=	2,311,988				605.9	(3.7)		
		Y=	441,416				431.6	(178.0)		
CONTROL POINT 70-A-6	"	x=	2,311,556				474.3	(135.3)		
			446,168				51.2	(558.4)		

1 FT. = .3048006 METER

M-2388-12

COMPUTED BY: R.M.Whitson DATE 2-23-51 CHECKED BY: J.Steinberg DATE 2/23/51

Photogrammetry

MAP T- 9810 PROJECT NO. Ph-70-A(51) SCALE OF MAP 1:4800 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
PENDER, 1943 (d.m.)	(USC&GS) G-5734 626	N.A. 1927	38 52 55.073			1698.23 (151.93)	
			77 22 13.973			336.79 (1109.39)	
PENDER LOOKOUT TOWER, 1943	(USC&GS) G-5734 631	"	38 52 20.83			642.32 (1207.85)	
			77 22 06.28			151.39 (1295.03)	
P.T.S. No. 6 (U.S.G.S.) 1911	USGS Fairfax Quad Pg. 9	" Pre.Adj.	38 52 04.24			130.75 (1719.42)	
			77 21 52.55			1266.93 (179.61)	
SUB.PT.PENDER LOOKOUT TOWER		-	38 52			540.1 (1310.1)	
			77 21			1422.4 (24.0)	
SUB.PT. PENDER, 1943			38 52			1698.42 (151.74)	
			77 22			205.39 (1240.79)	
CONTROL POINT 70-A-1	Traverse	X=	2,320,875			2663.7 (342.9)	
		Y=	440,631			192.3 (417.3)	
SUB. PT. PTS No.6(USGS) 1911			Plotted graphically				

1 FT.=.3048006 METER

M-2388-12

COMPUTED BY: J.Steinberg DATE 2/23/51 CHECKED BY: R.M.Whitson DATE 2-26-51

Photogrammetry

MAP T-9811 PROJECT NO. Ph-70-A(51) SCALE OF MAP 1:4800 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
T.T. 5 HDW (USGS) 1948	USGS FAIRFAX QUAD. Pg.29	N.A. 1927 Pre.Adj.	38 50 22.53				694.74	(1155.42)		
			77 24 18.91				456.07	(991.01)		
T.T. 5 R.C.D. (USGS) 1949	" Pg. 8	"	38 49 38.05				1173.31	(676.85)		
			77 23 05.24				126.40	(1320.92)		
SUB. PT. TT 5 RCD		"	38 49				1172.4	(677.8)		
			77 22				1150.3	(297.0)		
CONTROL POINT 70-A-7	"		426,610				185.9	(423.7)		
			2,311,388				423.1	(186.5)		
CONTROL POINT 70-A-8	"		425,365				416.1	(193.5)		
			2,311.948				593.8	(15.8)		
CONTROL POINT 70-A-9	"		424,804				245.1	(364.5)		
			2,309,630				496.8	(112.8)		
CONTROL POINT 70-A-10	"		421,950				594.4	(15.2)		
			2,309,527				465.4	(144.2)		
SUB. PT. TT 5 HDW (USGS) 1948	Plotted graphically	"	38 50							
			77 24							

1 FT. = .3048006 METER

M-2388-12

COMPUTED BY: R.M.Whitson DATE 2-23-51 CHECKED BY: J.Steinberg DATE 2-23-51

Photogrammetry

MAP T-9812 PROJECT NO. Ph-70-A(51) SCALE OF MAP 1:4800 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
TT-4-HDW	USGS Fairfax Quad P.28	N.A. 1927 Pre.Adj	38 51 02.12				65.37	(1784.79)		
(USGS) 1948			77 20 32.71				788.77	(658.07)		
TT-6-RCD	"	"	38 50 42.90				1322.86	(527.30)		
(USGS) 1949	Pg. 9		77 22 27.56				664.64	(782.32)		
SUB. STA.			38 50				1837.4	(12.8)		
TT-4-HDW			77 20				1242.8	(204.1)		
Sub. Sta. No. 2			38 50				1563.2	(286.9)		
TT-6 RCD			77 21				1190.0	(257.0)		
SUB. STA. No. 1	(on T-9811)		38 50				1166.6	(683.6)		
TT-6-RCD			77 22				1062.9	(384.0)		
CONTROL POINT	Field Comp P. 4	N.A. 1927	421,995.78				608.3	(1.3)		
70-A-16			2,332,345.11				105.2	(504.4)		
CONTROL POINT			420,855.56				260.8	(348.8)		
70-A-19	"	"	2,324,424.25				129.3	(480.3)		
CONTROL POINT			421,688.77				514.7	(94.9)		
70-A-20	"	"	2,326,679.44				207.1	(402.5)		
CONTROL POINT			422,548.80				167.3	(442.3)		
70-A-21	"	"	2,329,874.81				571.4	(38.2)		
CONTROL POINT			426,258.18				78.7	(530.9)		
70-A-25	"	"	2,331,864.17				568.2	(41.4)		
CONTROL POINT			427,172.07				357.2	(252.4)		
70-A-26	"	"	2,330,596.37				181.8	(427.8)		
CONTROL POINT			427,179.75				359.6	(250.0)		
70-A-27	"	"	2,328,174.71				53.3	(556.3)		

1 FT. = .3048006 METER

M-2388-12

COMPUTED BY: R. M. Whitson DATE 2/23/51 CHECKED BY: J. Steinberg DATE 2/23/51

Photogrammetry

MAP T-9812 PROJECT NO. Ph-70A(51) SCALE OF MAP 1:4800 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
CONTROL POINT 70-A-28	Field Comp P.4	N.A. 1927	428,709.17				216.2	(393.4)		
			2,329,304.87				397.7	(211.9)		
CONTROL POINT 70-A-29	"	"	430,142.21				43.3	(566.3)		
			2,329,939.27				591.1	(18.5)		
CONTROL POINT 70-A-30	"	"	431,705.17				519.7	(89.9)		
			2,330,577.52				176.0	(433.6)		
CONTROL POINT 70-A-31	"	"	422,907.75				276.7	(332.9)		
			2,332,397.02				121.0	(488.6)		
CONTROL POINT 70-A-22	"	"	420,739.55				225.4	(384.2)		
			2,331,127.66				343.7	(265.9)		
CONTROL POINT 70-A-23	"	"	420,817.61				249.2	(360.4)		
			2,329,052.17				320.7	(288.9)		

1 FT. = .3048006 METER

M-2388-12

COMPUTED BY: J. Steinberg DATE CHECKED BY: L.A. Senasack DATE 3/19/51

Photogrammetry

MAP T-9813 PROJECT NO. Ph-70-A(51) SCALE OF MAP 1:4800 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
D-232- (USGS) 1941	USGS Fairfax Quad P.7	N.A. 1927 Pre.Adj.	38 46 50.60				1560.30	(289.86)		
			77 23 14.61				352.66	(1095.62)		
SUB.PT. D 232			38 46				1400.6	(449.6)		
			77 23				685.6	(762.7)		
CONTROL POINT 70-A-11	Field P. 3	N.A. 1927	420,400				121.9	(487.7)		
			2,311,438				438.3	(171.3)		
CONTROL POINT 70-A-12	Field Comp P. 3	"	416,165				50.3	(559.3)		
			2,314,830				253.0	(356.6)		
CONTROL POINT 70-A-13	"	"	413,637				499.0	(110.6)		
			2,314,834				254.2	(355.4)		
CONTROL POINT 70-A-14	"	"	411,387				422.8	(186.8)		
			2,315,709				520.9	(88.7)		

1 FT. = .3048006 METER

COMPUTED BY: R. M. Whitson DATE 2-23-51 CHECKED BY: J.Steinberg DATE 2/23/51

M-2388-12

Photogrammetry

MAP T- 9814 PROJECT NO. Ph-70A(51) SCALE OF MAP 1:4800 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
TT-4-RCD (USGS) 1949	USGS Fairfax Quad. P.7	N.A. 1927 Pre.Adj.	38 48 21.86				674.07	(1176.09)		
			77 22 19.44				469.07	(978.67)		
FAIRFAX, 1943	USC&GS G-5734 625	N.A. 1927	38 46 53.196				1640.35	(209.81)		
			77 19 44.385				1071.32	(376.90)		
SUB. PT. TT-4-RCD			38 48				388.13	(1462.03)		
			77 21				1085.33	(362.41)		
SUB. PT. FAIRFAX			38 47				72.37	(1777.79)		
			77 19				1416.45	(31.77)		
CONTROL POINT 70-A-18	Field Comp P. 4	N.A. 1927	419,580.89				481.9	(127.7)		
			2,322,047.66				14.5	(595.1)		
CONTROL POINT 70A-24	Field Comp P.4	"	416,380.49				116.0	(493.6)		
			2,321,650.38				503.0	(106.6)		
CONTROL POINT 70-A-17	"	"	419,430.23				435.9	(173.7)		
			2,320,193.48				59.0	(550.6)		

1 FT. = .3048006 METER

COMPUTED BY: J.Steinberg DATE 2/23/51 CHECKED BY: R.M.Whitson DATE 2-26-51

M-2366-12

COMPILATION REPORT

T-9808 to T-9814 inclusive

Up to the time of this writing, no field inspection report for the seven surveys in this project has been received at the compilation office. It is assumed that when the field report is completed it will become a part of this descriptive report. See "Summary to Accompany Descriptive Report".

31. DELINEATION

The greater part of the project was compiled graphically; however, the Kelsh plotter was used to compile planimetry and hypsometry in the area covered by photographs 51-0-102 through 51-0-109 and is contained on seven Kelsh plotter work sheets.

While the higher altitude "D" photographs were much more desirable for graphic compilation, some difficulty was encountered in locating the same pass points and detail points originally chosen for use with the "O" photographs and plotted on the manuscripts. In some areas where consecutive "D" photographs were available, their approximate centers were located on the manuscripts by holding to planimetric detail; and detail points common to both the "O" and "D" photographs were then radially plotted on the manuscripts.

Only partial field inspection was received for the areas of T-9808, T-9809, and T-9810. No field inspection whatever, except of course, for contours, was available for the areas of T-9811, T-9812, T-9813, and T-9814.

32. CONTROL

See Radial Plot Report.
No further comment.

33. SUPPLEMENTAL DATA

None.

34. CONTOURS AND DRAINAGE

The only changes or adjustments made to the contouring other than those required by relief displacements were in reconciling the Kelsh plotter contours with those established by the planetable surveys. This was necessary only in the area where these surveys joined. In all cases the Kelsh plotter contours were adjusted to be consistent with spot elevations as shown on the contoured field inspection photographs.

It is noted that the topographic expression as depicted by the field survey portrays a gently rolling countryside while the Kelsh plotter contours represent a rather rugged terrain. The field edit party will no doubt dispose of this discrepancy. See side heading 61 of the Review Report.

35 thru 37
Not applicable.

38. CONTROL FOR FUTURE SURVEYS

None.

39. JUNCTIONS

All junctions between surveys in this project were carefully made and are in agreement.

40. HORIZONTAL AND VERTICAL ACCURACY

Weak areas, due to insufficient horizontal control and tilted photographs, has been adequately discussed in the photogrammetric plot report .

Any subnormality in vertical accuracy will probably be attributable to the use of low altitude, tilted photographs for graphic compilation.

41 thru 45.

Inapplicable.

46. COMPARISON WITH EXISTING MAPS

The manuscripts were compared with the USGS Fairfax, Va. quadrangle scale 1:62,500 edition of 1915, reprinted in1944.

47. Inapplicable

Respectfully submitted
9 May 1951

Raymond Glaser

Raymond Glaser
Cartographic Aid

Approved and forwarded

Hubert A. Paton

Hubert A. Paton
Comdr., C&GS
Officer in Charge
Baltimore Photo. Office

48. GEOGRAPHIC NAME LIST

Braddock Road

Castle Creek
Clifton
* Colchester Road

Difficult Run

Johnny Moore Creek

* Lee Highway or Lee Boulevard
Little Difficult Run
Little River Road
Little Rocky Run

Pender
Popes Head Creek

Rocky Run

Sisson
Southern R.R.

U.S. 29
U.S. 50
U.S. 211

Warrenton Road

* Willow Spring

* Names to be verified

Verified during field edit & noted correctly on map manuscripts.
C.H.

Form T-2

50 -

PHOTOGRAMMETRIC OFFICE REVIEW

T-9808 to T-9814 incl.

1. Projection and grids B 2. Title B 3. Manuscript numbers B 4. Manuscript size B

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy B 6. ~~Recoverable horizontal stations of less than third-order accuracy (topographic stations)~~ _____ 7. ~~Photo-hydro stations~~ _____ 8. Bench marks B
9. ~~Plotting of sextant fixes~~ _____ 10. Photogrammetric plot report B 11. Detail points B

ALONGSHORE AREAS

(Nautical Chart Data)

12. ~~Shoreline~~ _____ 13. ~~Low-water line~~ _____ 14. ~~Rocks, shoals,~~ etc. _____ 15. ~~Bridges~~ _____ 16. ~~Aids to navigation~~ _____ 17. ~~Landmarks~~ _____ 18. ~~Other alongshore physical features~~ _____ 19. ~~Other alongshore cultural features~~ _____

PHYSICAL FEATURES

20. Water features B 21. ~~Natural ground cover~~ _____ 22. Planetable contours B 23. Stereoscopic instrument contours B 24. Contours in general B 25. Spot elevations B 26. ~~Other physical features~~ _____

CULTURAL FEATURES

27. Roads B 28. Buildings B 29. Railroads B 30. Other cultural features B

BOUNDARIES

31. ~~Boundary lines~~ _____ 32. ~~Public land lines~~ _____

MISCELLANEOUS

33. Geographic names B 34. Junctions B 35. Legibility of the manuscript B 36. Discrepancy overlay B 37. Descriptive Report B 38. Field inspection photographs B 39. ~~Forms~~ _____
40. Raymond Glass — Reviewer; Joseph Steinberg — Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

_____ Compiler _____ Supervisor

43. Remarks:

M-2623-12

Review Report T-9808 to T-9814 inclusive

Topographic
31 May 1951

62. Comparison with Registered Topographic Surveys

No prior surveys of this area were made by the Bureau.

63. Comparison with Maps of other Agencies

USGS; FAIRFAX QUADRANGIE; edition of 1915, reprinted 1944; scale 1:62,500.

64. Comparison with Contemporary Hydrographic Surveys

None

65. Comparison with Nautical Charts

Inapplicable since this is an inland survey.

66. Adequacy of Results and Future Surveys

Field edit corrections were applied during final review. Vertical accuracy tests were run on all maps but T-9812; the results of these accuracy tests indicate that the contours comply with the standard accuracy requirements. Only minor inadequacies were found, and they were corrected. These maps comply with the National Standards of Accuracy with the exception possibly of those areas referred to in the Photogrammetric Plot Report.

67. Contours

The second paragraph of sideheading 34 of the Compilation Report should be modified in that the terrain, on the whole, as depicted by both field and Kelsh plotter contours indicates a rolling terrain with moderate and gradual changes in relief with the steeper slopes to be noted along the more major drainages.

Reviewed by:
Charles Hemsrich

Approved by:

S. V. Griffith
Chief, Review Section H.R.B. 12/5/51

O S Reading
Chief, Div. of Photogrammetry