9846 THRU 9858

9846 THRU 9858

Diag. Cht. No. 77-5.

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. Ph-78(51) *Office No.* T-9846 thru T-9858

LOCALITY

State Virginia

General locality Fairfax County

Locality Burke Airport Site

19 51

CHIEF OF PARTY

H.A.Paton, Chief of Field Party

L.C.Lande, Div. of Photo. Wash.,D.C.

LIBRARY & ARCHIVES

DATE November 17, 1961

USCOMM-DC 5087

DATA RECORD

T-9846 through T-9858

Project No. (II): Ph-78(51) Quadrangle Name (IV): Burke, Va.

Field Office (II): Burke, Va. Chief of Party: H. A. Paton

Photogrammetric Office (III): Washington, D. C. Officer-in-Charge: L. C. Lande
Chief, Graphic Comp. Section

Instructions dated (II) (III): none issued

Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Radial plot and graphic comp.

Manuscript Scale (III): 1:2,400 Stereoscopic Plotting Instrument Scale (III): - -

Scale Factor (III): 1.0

Date received in Washington Office (IV): Nov. 20, 1951 Date reported to Nautical Chart Branch (IV): Nov. 27, 1951

Applied to Chart No. Date: Date registered (IV):

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

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

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): *Fairfax, 1943 and Chapel, 1942

Lat.: *38° 46' 53.196" Long.: *77° 19' 44.385" Adjusted
38° 44' 47.763" 77° 15' 27.221" ~~Unadjusted~~

Plane Coordinates (IV): State: Virginia Zone: North

Y=*408,089.01' X=*2,333,812.35'
395,668.78' 2,354,346.34'

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.

M-2618-12(4)

4290
4213

T-9846, T-9847, T-9848, T-9851
T-9852, T-9853, T-9855, T-9856
T-9857, and T-9858

Contours by photo-planetable

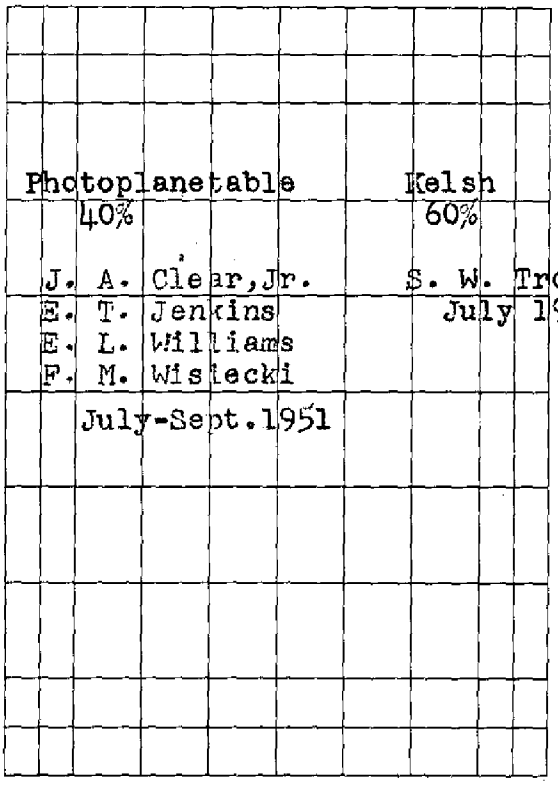
J. A. Clear, Jr.
E. T. Jenkins
E. L. Williams
F. M. Wisiecki

July-Sept. 1951

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

M-2618-12(4)

T-9849

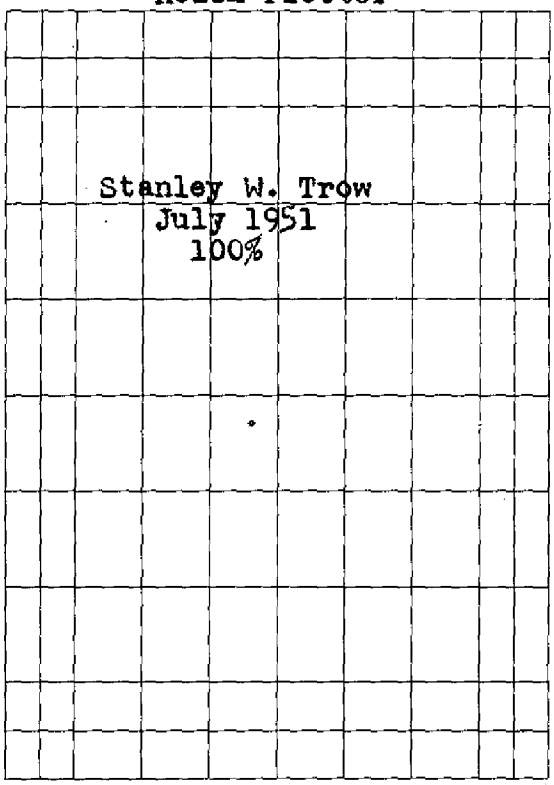


Areas contoured by various personnel
(Show name within area)
(II) (III)

M-2618-12 (4)

T-9850

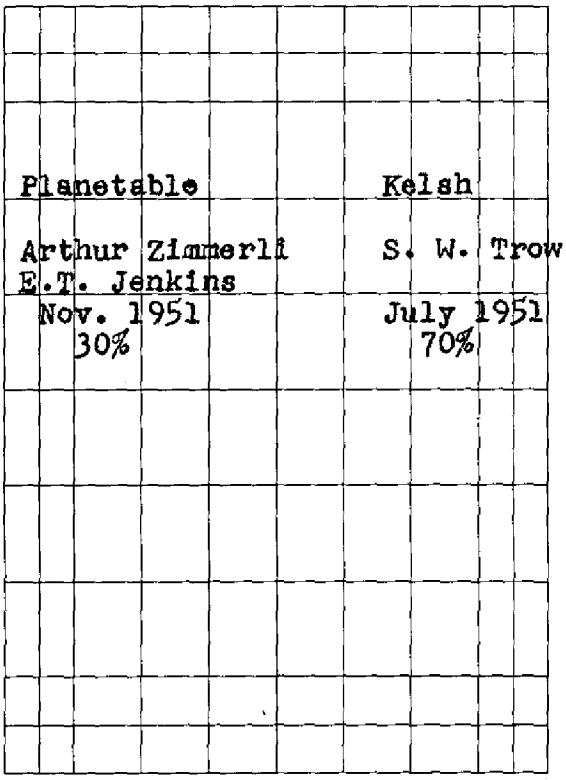
Kelsh Plotter



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

M-2618-12(4)

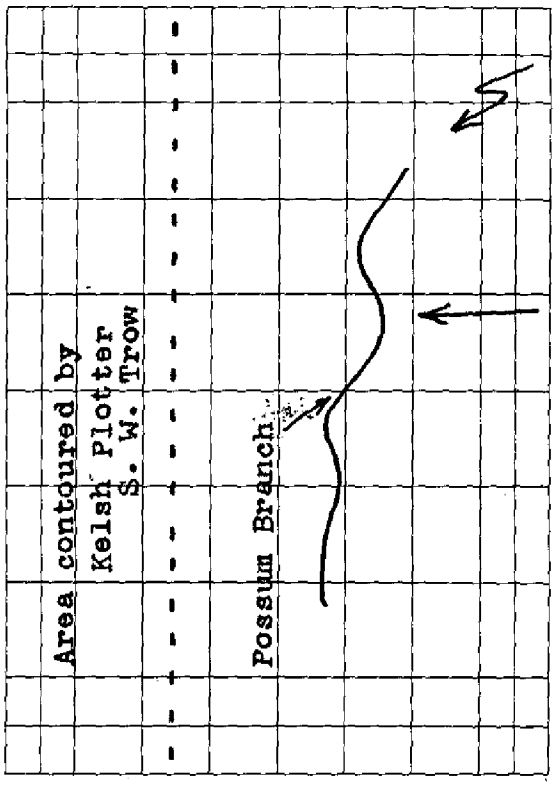
T-9854



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

M-2618-12(4)

T-9855



Contours by photo-planetable
J. A. Clear, Jr.
E. T. Jenkins
E. L. Williams
F. M. Wisiecki
July-Sept. 1951

Located by plane-table

E. T. Jenkins
A. B. Zimmerli
Oct. 1951

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

M-2618-12(4)

DATA RECORD
T-9846 thru T-9858

Field Inspection by (II): Howard J. Murray Date: July-August 1951

Planetable contouring by (II): See page T2 Date:

Completion Surveys by (II): none Date:

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

not applicable

Projection and Grids ruled by (IV): L. B. Clark Date: 5 June 1951

Projection and Grids checked by (IV): H. D. Wolfe Date: 7 June 1951

Control plotted by (III): N. S. Schultz
C. E. Cook Date: July 1951

Control checked by (III): B. J. Colner Date: July 1951

Radial Plot ~~or Stereoscopic Control extension~~ by (III): R. J. French Date: August 1951

Stereoscopic Instrument compilation (III):
Planimetry S. W. Trow Date:
Contours S. W. Trow Date: July 1951
T-9849-50 and T-9854-55 Kelsh

Manuscript delineated by (III): M.Stephens, C.E.Cook, N.S.Schultz Wm.Harris, O.Dalbey, S.G.Blankenbaker, H. Rau, Chas.Theurer, H.J.Murray, R. J.French
Contours inked by J.P.Battley Date: August-Sept.1951

Photogrammetric Office Review by (III): R. J. French
H. J. Murray Date: Oct.-Nov. 1951

Elevations on Manuscript checked by (II) (III): R. J. French
H. J. Murray Date: Oct.-Nov. 1951

M-2618-12(4)

T-9846

Camera (kind or source) (III): X camera 12" f
J camera 6" f

PHOTOGRAPHS (III)

Number	Date	~~Time~~	Scale	~~Stage of Tide~~
X-54	16 June 1951		1:6000	
55			ratio to	
56			1/2400	
57				
66				
67				
68				
69				
90				
91				
92				
X-93				
J-4325A			1:8000	
J-4326			ratio to 1/2400	

Tide (III): not applicable

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

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): .56
Shoreline (More than 200 meters to opposite shore) (III): not applicable
Shoreline (Less than 200 meters to opposite shore) (III): " "
Control Leveling - Miles (II): 1.46
Number of Triangulation Stations searched for (II): none Recovered: Identified:
Number of BMs searched for (II): none Recovered: Identified:
Number of Recoverable Photo Stations established (III): none
Number of Temporary Photo Hydro Stations established (III): none

Remarks:
Number of monumented traverse stations established 2
" " " " " identified 2

Property Surveys by: J. M. Neal July-Nov. 1951
S. J. Hathorn " " "
E. T. Jenkins " " "

M-2618-12(4)

T-9847

Camera (kind or source) (III): X camera 12" f.
J camera 6" f.

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
X-90	16 June 1951	---	1:6000	----
91	"		ratio to	
92	"		1:2400	
93	"			
100	"			
101	"			
102	"			
103	"			
155	"			
156	"			
157	"			
J-4282	"		1:8000	
4283	"		ratio to	
4284	"		1:2400	

Tide (III)

not applicable

Ratio of Ranges	Mean Range	Spring Range

Reference Station:
Subordinate Station:
Subordinate Station:

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): .61
Shoreline (More than 200 meters to opposite shore) (III):
Shoreline (Less than 200 meters to opposite shore) (III):
Control Leveling - Miles (II): 1.74
Number of Triangulation Stations searched for (II): none Recovered: Identified:
Number of BMs searched for (II): one Recovered: one Identified: one
Number of Recoverable Photo Stations established (III): none
Number of Temporary Photo Hydro Stations established (III):

Remarks: Number of monumented traverse stations established: 2
" " " " " identified: 2

Property Surveys by: J. M. Neal July-Nov. 1951
S. J. Hathorn
E. T. Jenkins

M-2618-12(4)

T-9848

Camera (kind or source) (III): J camera 6" f.
X camera 12" f.

PHOTOGRAPHS (III)

Number	Date	~~Time~~	Scale	~~Stage of Tide~~
J-4281	16 June 51		1/8,000	
4282			ratio	
4283			to	
J-4381			1/2,400	
J-4382				
J-4383				
J-4372				

Tide (III)

	Ratio of Ranges	Mean Range	Spring Range
Reference Station:)			
Subordinate Station:) not applicable			
Subordinate Station:)			

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): .18
Shoreline (More than 200 meters to opposite shore) (III):
Shoreline (Less than 200 meters to opposite shore) (III):
Control Leveling - Miles (II): 1.95
Number of Triangulation Stations searched for (II): --- Recovered: Identified:
Number of BMs searched for (II): --- Recovered: Identified:
Number of Recoverable Photo Stations established (III): ---
Number of Temporary Photo Hydro Stations established (III): ---

Remarks: No monumented traverse stations established.

Property Surveys by: J. M. Neal July-Nov. 1951
S. J. Hathorn
E. T. Jenkins

T-9849

Camera (kind or source) (III): O camera 6 inch f
J camera 6 inch f

PHOTOGRAPHS (III)

Number	Date	Time	Scale	~~Stage of Tide~~
J-4278	16 June 1951	----	1:8000	
4279			ratioed to	
4280			1:2400	
4281				Radial
4379				Plot
4380				
4381				
O-318	2 Feb. 1951		1:8000	Kelsh
319			ratio to	
345			1:1,600	
346				

Tide (III)

not applicable

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

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): .16

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

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

Control Leveling - Miles (II): 1.5

Number of Triangulation Stations searched for (II): none Recovered: Identified:

Number of BMs searched for (II): - Recovered: Identified:

Number of Recoverable Photo Stations established (III): -

Number of Temporary Photo Hydro Stations established (III): --

Remarks: A new position was established for
(21S, 1920, 1951
(PTS " (USGS)

T-9850
Camera (kind or source) (III): O Camera, 6" f
J Camera, 6" f

PHOTOGRAPHS (III)

Number	Date	~~Time~~	Scale	~~Stage of Tide~~
J-4276	16 June 1951		1:8000 ratio	Radial plot
J-4277	"		to 1:2,400	
J-4278	"			
O-266	2 Feb. 1951		1:8000 ratio to	Kelsh
267	"		1:1600	
304	"			
305	"			

Tide (III)
not applicable

Ratio of Ranges	Mean Range	Spring Range

Reference Station:
Subordinate Station:
Subordinate Station:

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): .21
Shoreline (More than 200 meters to opposite shore) (III): --
Shoreline (Less than 200 meters to opposite shore) (III): --
Control Leveling - Miles (II): 1.53
Number of Triangulation Stations searched for (II): --- Recovered: Identified:
Number of BMs searched for (II): --- Recovered: Identified:
Number of Recoverable Photo Stations established (III): ---
Number of Temporary Photo Hydro Stations established (III):

Remarks: Number of monumented traverse stations established: 1
" " " " " identified: 1

M-2618-12(4)

T-9851

Camera (kind or source) (III): J camera 6" f.

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
J-4373	16 June 1951	---	1:8000	----
4374	" " "		ratio to	
4375	" " "		1:2400	

Tide (III)

not applicable

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

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): .11

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

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

Control Leveling - Miles (II): .97

Number of Triangulation Stations searched for (II): none Recovered: Identified:

Number of BMs searched for (II): none Recovered: Identified:

Number of Recoverable Photo Stations established (III): none

Number of Temporary Photo Hydro Stations established (III):

Remarks: Number of monumented traverse stations established: 3
" " " " " identified: 3

M-2618-12(4)

T-9852

Camera (kind or source) (III): X camera 12" f
J camera 6" f

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
X-51	16 June 1951	----	1:6000	- -
52			ratio to	
53			1:2400	
54				
69				
70				
71				
72				
87				
88				
89				
90				
J-4326			1:8000	
4327			ratio to 1:2400	

Tide (III)

not applicable

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

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): .84

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

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

Control Leveling - Miles (II): 2.27

Number of Triangulation Stations searched for (II): none Recovered: Identified:

Number of BMs searched for (II): 1 Recovered: 1 Identified: 1

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

Remarks: Number of nomumented traverse stations established: 5
" " " " " identified: 5

Property Surveys by: J.M.Neal July-Nov. 1951
S.J. Hathorn
E.T.Jenkins

T-9853

Camera (kind or source) (III): X camera 12" f

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
X-103	16 June 1951	----	1:6000	----
104			ratio to	
105			1:2400	
106				
158				
159				
160				
181				
182				

Tide (III)

not applicable

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

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): .27

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

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

Control Leveling - Miles (II): 3.14

Number of Triangulation Stations searched for (II): 1 Recovered: 1 Identified: 1

Number of BMs searched for (II): 2 Recovered: 2 Identified: 2

Number of Recoverable Photo Stations established (III):

Number of *Temporary Photo Hydro Stations established* (III):

Remarks: Number of monumented traverse stations established: 3
" " " " " identified: 3
A new position was established for
(6B376, 1920, 1951
(PTS "(USGS)

Property Surveys by: J. M. Neal July-Nov. 1951
S. J. Hathorn
E. T. Jenkins

T-9854

Camera (kind or source) (III): O camera 6" f
X camera 12" f
J camera 6" f

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
X-39	16 June 1951	---	1:6000 ratio to 1:2400	---
J-4314			1:8000 ratio to 1:2400	Radial Plot
4315				
4316				
O-231	2 Feb. 1951		1:8000 ratio to 1:1600	Kelsh
232				
233				
234				

Tide (III)

not applicable

Ratio of Ranges	Mean Range	Spring Range

Reference Station:
Subordinate Station:
Subordinate Station:

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): .47
Shoreline (More than 200 meters to opposite shore) (III):
Shoreline (Less than 200 meters to opposite shore) (III):
Control Leveling - Miles (II): 1.72
Number of Triangulation Stations searched for (II): -- Recovered: Identified:
Number of BMs searched for (II): -- Recovered: Identified:
Number of Recoverable Photo Stations established (III):
Number of Temporary Photo Hydro Stations established (III):

Remarks:

Property surveys by: J. M. Neal July-Nov. 1951
S. J. Hathorn
E. T. Jenkins

M-2618-12(4)

T-9855

Camera (kind or source) (III): O camera 6" f
X camera 12" f
J camera 6" f

PHOTOGRAPHS (III)

Number	Date	~~Time~~	Scale	~~Stage of Tide~~
O-231	2 Feb. 1951		1:8000 ratio to 1:1600	Kelsh
232				
233				
234				
X-49	16 June 1951		1:6000 ratio to 1:2400	
50				
51				
72				
73				
74				
85				
86				
87				
107				
108				
109				
J-4329			1:8000 ratio to 1:2400	
4330				
4331				

Tide (III)

Reference Station: not applicable

Subordinate Station:

Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): 1.25

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

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

Control Leveling - Miles (II): 2.54

Number of Triangulation Stations searched for (II): none Recovered: Identified:

Number of BMs searched for (II): 1 Recovered: 1 Identified: 1

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

Remarks: Number of monumented traverse stations established: 3
" " " " " identified: 3

Property Surveys by: J. M. Neal July-Nov. 1951
S. J. Hathorn
E. T. Jenkins

M-2618-12(4)

Register
but do not send
Out for Signature

T-9856

Camera (kind or source) (III): X camera 12" f.

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
X-106	16 June 1951	--	1:6000 ratio to 1:2400	
107				
108				
109				
X-161				
162				
163				

Tide (III)

not applicable

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

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): .88

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

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

Control Leveling - Miles (II): 2.27

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

Number of BMs searched for (II): -- Recovered: Identified:

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

Remarks: Number of monumented traverse stations established: 2
" " " " " identified: 2

Property surveys by: J. M. Neal July-Nov. 1951
E. T. Jenkins
S. J. Hathorn

- T-9857

Camera (kind or source) (III): X camera 12" f
J camera 6" f

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
X-48	16 June 1951	--	1:6000 ratio to 1:2400	--
49				
74				
75				
82				
83				
84				
85				
109				
110				
111				
112				
J-4331			1:8000 ratio to 1:2400	

Tide (III)

not applicable

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

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): .50

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

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

Control Leveling - Miles (II): 1.36

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

Number of BMs searched for (II): 1 Recovered: 1 Identified: 1

Number of Recoverable Photo Stations established (III):

Number of *Temporary Photo Hydro Stations established* (III):

Remarks: Number of monumented traverse stations established: 2
" " " " " identified: 2

T-9858

Camera (kind or source) (III): X camera 12" f

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
X-109	16 June 1951		1:6000 ratio to 1:2400	
110				
111				
112				
113				
X-163				
164				
165				
166				
167				

Tide (III)

not applicable

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

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): .61

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

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

Control Leveling - Miles (II): 1.93

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

Number of BMs searched for (II): one Recovered: one Identified: one

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

Remarks: Number of monumented traverse stations established: 3
" " " " " identified: 3

M-2618-12(4)

Photogrammetry

MAP T- 9846 PROJECT NO. Ph-78(51) SCALE OF MAP 1:2400 SCALE FACTOR 1.00

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	Lambert North 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)
Z-15, 1951	Traverse Comp.	NA1927	413,977.76 2,341,536.36				
Sub. sta.	Comp.	"	414,029.79 2,341,555.96	29.79 970.21 555.96 444.04		14.89 485.10 277.98 222.02	*
Z-16, 1951	Trav. Comp.	"	413,955.72 2,342,058.39				
*	Stations used to control the radial line plot.						

1 FT. = .3048006 METER

COMPUTED BY: Pates' Section DATE May, 1951 Plotted by: C. Cook CHECKED BY: B.J. Colner DATE July 1951

M-2388-12

Photogrammetry

MAP T- 9847 PROJECT NO. Ph-78(51) SCALE OF MAP 1:2400 SCALE FACTOR 1.00

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	Lambert North 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)	
Z-20 (Hub)	Trav. comp.	NA1927	414,470.10 2,348,294.02								
sub.sta.	"	"	414,475.60 2,347,717.45	475.60 717.45	524.40 282.55		237.80 358.72	262.20 141.27			*
Z-21, 1951	"	"	414,176.15 2,349,035.23								
N-45, 1934,1951 BM "(USC&GS)	"	"	413,206.42 2,350,684.39								
sub. sta.	" 2	"	413,111.13 2,350,969.91	111.13 969.91	888.87 30.09		55.56 484.45	444.43 15.04			*
W-16 (Hub) sub. sta.	"	"	410,847.10 2,351,653.55	847.1 653.55	152.9 346.5		423.5 326.7	76.9 173.2			*
W-17 (Hub) Home station	" "	" "	412,101.01 2,350,617.22	101.- 617.2	899.- 382.8		50.5 308.6	449.5 191.4			*
	*	Stations used to control the radial line plot.									

1 FT.=.3048006 METER

COMPUTED BY: Pates' Section DATE May 1951

Plotted by: C. C. Cook

CHECKED BY: B. J. Colner DATE July 1951

M-2388-12

Photogrammetry

MAP T- 9848 PROJECT NO. Ph-78(51) SCALE OF MAP 1:2400 SCALE FACTOR 1.00

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	Lambert North 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)
P.162 (Hub)	Trav.		413,563.4	563.4	436.6		*			
sub.sta.	comp:	NA 1927	2,356,380.9	380.9	619.1					
W-16-3-9	"	"	408,950.22	950.2	49.8		*			
sub. sta.			2,354,948.39	948.4	51.6					
		*	Stations used to control radial line plot.							

1 FT. = .3048006 METER

COMPUTED BY: Pates' Section DATE May 1951

Plotted by: N. S. Schultz

CHECKED BY: B. J. Colner DATE July 1951

M-2388-12

Photogrammetry

MAP T-9849 PROJECT NO. Ph-78(51) SCALE OF MAP 1:2400 SCALE FACTOR 1.00

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	Lambert North 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)
Pl 60 Hub. Traverse			413,714.8	714.8	285.2	*				
sub.sta."A" comp.		NA1927	2,359,936.2	936.2	63.8					
"			413,462.7	462.7	537.3	*				
sub.sta."B"	"	"	2,360,387.7	387.7	612.3					
21S 1920,1951			413,744.10							
PTS " (USGS)	"	"	2,359,885.52							
		*	Stations used to control the radial line plot.							

1 FT. = .3048006 METER

COMPUTED BY: Pates'Section DATE May 1951 Plotted by: C. Cook

CHECKED BY: B. J. Colner DATE July 1951

M-2388-12

Photogrammetry

MAP T-9850 PROJECT NO. Ph-78(51) SCALE OF MAP 1:2,400 SCALE FACTOR 1.00

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	Lambert North 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)
70 B-12	Traverse comp.	NA1927	413,762.61	762.6	237.4		381.3	118.7	*	
			2,371,138.07	138.0	862.-		69.0	431.-		
70 B-13	"	"	2,367,883.29	883.3	116.7		441.6	58.3	*	
			412,791.02	791.0	209.-		395.5	104.5		
70 B-14	"	"	2,365,483.49	483.5	516.5		241.7	258.2	*	
			412,608.11	608.1	391.9		304.0	195.9		
P1 51, 1951	"	"	413,769.13							
			2,371,130.83							
		*	Stations used to control the radial line plot.							

1 FT. = .3048006 METER

COMPUTED BY: Pates' Section DATE August 1951

Plotted by: N. S. Schultz
CHECKED BY: R. J. French DATE Aug. 23, 1951

M-2388-12

Photogrammetry

MAP T. 9851 PROJECT NO. Ph-78(51) SCALE OF MAP 1:2400 SCALE FACTOR 1.00

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	Lambert North 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)
AR 13, 1951	Traverse comp.	NA1927	411,928.31 2,377,463.15							
Sub.sta.	"	"	411,567.9 2,377,158.0	567.9 158.0	432.1 842.0		284.0 79.0	216.0 421.0	*	
AR 14, 1951	"	"	412,631.06 2,377,895.12							
Sub.sta.	"	"	412,635.2 2,377,897.0	635.2 897.0	364.8 103.0		317.6 448.5	182.4 51.5	*	
P1 47 (Hub) Sub "A"	"	"	414,480.52 2,374,469.18	480.52 469.18	519.5 530.8		240.2 234.6	259.8 265.4	*	
Sub "B"	"	"	414,435.23 2,374,491.21	435.23 491.21	564.8 508.8		217.6 245.6	282.4 254.4	*	
70 B-3A(Hub)	"	"	414,160.18 2,375,185.03	160.18 185.03	839.8 814.9		80.1 92.5	419.9 407.4	*	
P150, 1951	"	"	414,536.56 2,372,582.57							
		*	Stations used to control the radial line plot.							

1 FT. = .3048006 METER

COMPUTED BY: Pates' Section DATE July 1951

Plotted by: C. Cook

CHECKED BY: R. J. French DATE Aug. 1951

M-2388-12

Photogrammetry

MAP T-9852 PROJECT NO. Ph-78(51) SCALE OF MAP 1:2400 SCALE FACTOR 1.00

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	Lambert North 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)
Z-2 Sub.sta.	Traverse comp.	NA 1927	406,794.40 2,341,908.10	794.40 908.10	205.60 91.90		397.2 454.05	102.8 45.9	*	
Z5A, 1951	"	"	407,547.35 2,340,929.89							
Z 6A, 1951	"	"	408,166.56 2,341,000.00							
FC 15, 1951	"	"	406,103.87 2,342,251.63							
FC 16, 1951	"	"	406,102.31 2,342,681.53							
G 114, 1935,1951 BM " (USC&GS)	"	"	406,004.67 2,342,674.63							
		*	Station used to control the radial line plot.							

1 FT. = .3048006 METER

COMPUTED BY: Pates' Section DATE May 1951

Plotted by: N. S. Schultz

CHECKED BY: S. J. Hathorn DATE July 1951

M-2388-12

Photogrammetry

MAP T-9853 PROJECT NO. Ph-78(51) SCALE OF MAP 1:2400 SCALE FACTOR 1.00

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	Lambert North 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)	
Y 15, 1951	Traverse comp.	NA1927	406,079.55 2,349,215.58								
Y 19 Sub.sta.	"	"	407,946.4 2,348,528.2	946.4 528.2	53.6 471.8		473.2 264.1	26.8 235.9	*		
Y 25, Sub.sta.	"	"	408,491.5 2,345,643.6	491.5 643.6	508.5 356.4		245.8 321.8	254.2 178.2	*		
F 114 AZ.Mk. 1951	"	"	409,260.57 2,348,083.77	260.57 83.77							
" Sub.sta.	"	"	409,277.1 2,348,063.3	277.1 63.3	722.9 936.7		138.6 31.6	361.4 468.4	*		
F114,1935,1951 BM "(USC&GS)	"	"	409,078.72 2,347,730.89								
LS 10 Sub.sta.	"	"	406,283.84 2,350,962.35	283.8 962.3	716.2 37.7		141.9 481.1	358.1 18.8	*		
W-13 Sub.sta.	"	"	409,193.83 2,351,958.24	193.8 958.2	806.2 41.8		96.9 419.1	403.1 20.9	*		
6B376,1920,1951 PTS "(USGS)	"	"	406,612.29 2,348,947.98								
Sub.sta.	"	"	406,583.5 2,348,910.2	583.5 910.2	416.5 89.8		291.7 455.1	208.2 44.9	*		
		*	Stations used to control the radial line plot.								

1 FT. = .3048006 METER

COMPUTED BY: Rates section P. J. Colner DATE June 1948

Plotted by: S.J.Hathorn
CHECKED BY: R.S.Schultz DATE Aug. 1951

M-2388-12

Photogrammetry

MAP T-9854 PROJECT NO. Ph-78(51) SCALE OF MAP 1:2,400 SCALE FACTOR 1.00

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	Lambert North 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)	
Fairfax,1943			408,089.01'								
			2,333,812.35'								
FC1 Sub.sta."A"			407,902.7	902.7	97.3		451.4	48.6			*
			2,334,202.3	202.3	797.7		101.2	398.8			
" Sub.sta."B"			408,053.7	53.7	946.3		26.8	473.2			*
			2,333,867.1	867.1	132.9		433.6	66.4			
" Sub.sta."C"			409,893.8	893.8	106.2		446.9	53.1			*
			2,336,900.6	900.6	99.4		450.3	49.7			
FS3 Sub.sta."A"			406,321.9	321.9	678.1		160.9	339.0			*
			2,334,723.1	723.1	276.9		361.5	138.4			
Sub.sta."B"			406,363.0	363.0	637.0		181.5	318.5			*
			2,334,707.7	707.7	292.3		353.8	146.1			
FC4 Sub.sta.			406,262.8	262.8	737.2		131.4	368.6			*
			2,335,036.9	36.9	963.1		18.4	481.5			
FC6 Sub.sta."A"			406,045.-	45.-	955-		22.5	477.5			*
			2,336,648.-	648.-	352-		324.-	176.-			
FC7 Sub.sta."A"			404,783.-	783.-	217.-		392.-	108.-			*
			2,337,068.-	68.-	932.-		34.-	466.-			
"B"			405,001.8	1.8	998.2		.9	499.1			*
			2,336,949.2	949.2	50.8		474.6	25.4			
FC6 Sub.sta."B"			406,003.9	3.9	996.1		2.0	498.0			*
			2,336,647.3	647.3	352.7		323.6	176.4			
		*									

Stations used in the radial line plot.

1 FT. = .3048006 METER

COMPUTED BY: Pates' Section DATE June 1951 Plotted by: N.S.Schultz CHECKED BY: B.J.Colner DATE July 1951

M-2388-12

Photogrammetry

MAP T-9855 PROJECT NO. Ph-78(51) SCALE OF MAP 1:2400 SCALE FACTOR 1.00

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	Lambert North 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)
Sub.sta."B"BM H-114	Traverse		402,914.3	914.3	(85.7)		457.2	42.8	*	
(USC&GS),1951	comp.	NA1927	2,338,202.5	202.5	(797.5)		101.2	398.8		
Sub.sta."A"BM H-114	"	"	402,847.-	847.0	(153.0)		424	76	*	
(USC&GS),1951			2,338,140.-	140.0	(860.0)		70	430		
H-114,1935,1951	"	"	402,907.35							
BM " (USC&GS)			2,338,244.54							
FC9 O/S, 1951	"	"	403,175.49							
			2,337,812.02							
FC10 O/S, 1951	"	"	402,795.91							
			2,338,213.42							
X-21 Sub.sta.	"	"	400,644.-	644.-	356.-		322.-	178.-	*	
			2,339.603.-	603.-	397.-		302.-	198.-		
		*	Stations used to control the radial line plot.							

1 FT. = .3048006 METER

COMPUTED BY: Pates' Section DATE June 1951

Plotted by: N.S.Schultz

CHECKED BY: B.J.Colner DATE July 1951

M-2388-12

Photogrammetry

MAP T-9856 PROJECT NO. Ph-78(51) SCALE OF MAP 1:2400 SCALE FACTOR 1.00

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	Lambert North 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)
FC23 (Hub	Traverse		403,122.4	122.4	(877.6)		61.2	438.8	*	
sub.sta.	comp.	NA1927	2,345,704.9	704.9	(295.1)		352.4	147.6		
FC-22A	"	"	404,124.3	124.3	(875.7)		62.2	437.8		
Az.Mk.1951			2,345,762.0	762.0	(238.0)		381.0	119.0		
Y-13 (Hub)	"	"	404,689.2	689.2	(310.8)		344.6	155.4	*	
sub.sta.			2,350,106.4	106.4	(893.6)		53.2	446.8		
Y-12 (Hub)	"	"	404,400.47	400.4	599.6		200.2	299.8	*	
sub.sta.			2,350,228.97	228.9	771.1		114.4	385.5		
FC 22A, 1951	"	"	403,484.22	484.2	515.8		242.1	257.9		
			2,345,375.23	375.2	624.8		187.6	312.4		
		*	Stations used to control the radial line plot.							

1 FT. = .3048006 METER

COMPUTED BY: Pates' Section DATE June 1951 Plotted by: N.S.Schultz CHECKED BY: B.J.Colner DATE July 1951

M-2388-12

Photogrammetry

MAP T-9857 PROJECT NO. Ph-78(51) SCALE OF MAP 1:2400 SCALE FACTOR 1.00

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	Lambert North LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID OR PROJECTION LINE IN FEET. 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)
X-14 (Hub)	Traverse		395,909.8	909.8	90.2		454.9	45.1	*	
sub.sta.	comp.	NA1927	2,343,959.8	959.8	40.2		479.9	20.1		
X-16, 1951	"	"	397,857.94	857.9	142.1		428.9	71.0		
			2,341,856.44	856.4	143.6		428.2	71.8		
" sub.sta.	"	"	397,836.2	836.2	163.8		418.1	81.9	*	
			2,341.926.7	926.7	73.3		463.4	36.6		
C-232, 1941,1951			398,222.36	222A	777.6		111.2	388.8		
BM " (USC&GS)	"	"	2,341,378.14	378.1	621.9		189.0	310.9		
		*								
			Stations used to control the radial line plot.							

1 FT. = .3048006 METER

COMPUTED BY: Pates' Section DATE June 1951 Plotted by: N.S.Schultz CHECKED BY: B.J.Colner DATE July 1951

M-2388-12

Photogrammetry

MAP T-9858 PROJECT NO. Ph-78(51) SCALE OF MAP 1:2400 SCALE FACTOR 1.00

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	Lambert North 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)
X-12 (Hub)	Traverse		392,657.8	657.8	342.2		78.9	171.1	*	
Sub.sta.	comp.	NA 1927	2,346,695.8	695.8	304.2		347.9	152.1		
X-12A, 1951	"	"	394,386.70	386.7	713.3					
			2,345,627.24	627.2	372.8					
FC 30, 1951	"	"	399,253.73	253.73	746.3					
			2,348,528.12	528.12	471.9					
FC 31, 1951	"	"	398,733.09	733.09	266.9					
			2,348,760.80	760.80	239.2					
" sub.sta.	"	"	398,762.1	762.1	237.9		381.0	118.9	*	
			2,348,687.8	687.8	312.2		343.9	156.1		
B 232,1941,1951	"	"	394,647.35	647.35	352.7					
BM "(USC&GS)	"		2,345,306.93	306.93	693.1					
CHAPEL, 1942			395,668.78	668.78	331.2					
			2,354,346.34	346.34	653.7					
		*								

Stations used to control the radial line plot.

1 FT. = .3048006 METER

Plotted by: S.J.Blankenbaker

M-2388-12

COMPUTED BY: Pates' Section DATE June 1951 CHECKED BY: B. J. Colner DATE July 1951

SUMMARY
TO ACCOMPANY TOPOGRAPHIC MAP MANUSCRIPTS
T-9846 through T-9858

Subject surveys represent project Ph-78.

This survey of the Burke, Va. area was accomplished at the request of the CAA. The area was selected as a possible site for the proposed new Washington, D.C. Airport. However, since this survey the Chantilly, Va. area was selected as being more desirable.

A cronar film positive at the compilation scale of 1:2,400 and the Descriptive Report will be registered and filed in the Bureau Archives.

FIELD INSPECTION REPORT
Project Ph-78(51)

2. Areal field inspection.- The proposed Burke Airport Site, including the Access Road to the airport, is comprised of 13 topographic sheets numbered T-9846 to T-9858 inclusive.

Burke is a small rural community located about 13 air-miles southwest of Washington, D. C. It is a community of scattered dwellings, farms and a few small business establishments. About twenty-five percent of the land area is cleared; the remainder of the area is either wooded - chiefly with deciduous trees - or densely covered with tall brush. The terrain is moderately hilly and rolling; as a result it has a well defined drainage system, and a topography that is expressive when portrayed by 5-foot contour intervals.

The photographic coverage of the area was adequate and satisfactory, and no unusual difficulties due to scale or tilt were found.

3. Horizontal Control.- Recovery notes on Form 526 have been prepared and submitted for all USC&GS stations that were recovered or searched for in the area.

Third-order traverse stations were established to supplement the existing control. Monumented traverse stations were established either in pairs or an azimuth station (monumented) was established to provide azimuth control. A total of 27 traverse stations were established; in the group are included 5 USC&GS bench marks and 2 USGS traverse stations. Only 1 monumented azimuth station was established.

Forms 525 have been submitted for all permanently marked traverse stations. Forms 525 and 526 previously submitted on project Ph-70B(51) - the Annandale project - were not re-submitted. Temporary traverse stations were temporarily marked to facilitate their recovery in the event they were needed to control the development of property and ownership lines.

4. Vertical Control.- Recovery notes on Form 685 - unless previously submitted on project Ph-70B(51) - have been prepared and submitted. All USC&GS bench marks in the project area were recovered and identified. Fly level points were established with a spirit level over all roads

and major trails to provide adequate control for plane-table contouring and for contouring by stereoscopic instruments. All closures exceeding .35 of a foot were adjusted; the largest closure was .40 of a foot. The first and last designated fly level points in the main airport area were C-1 and C-73; along the access road they were J-1 and J-16. Since the project area was treated as a whole, no attempt was made to label the fly level points by the quadrangle system of numbering, instead a fly level point was assigned a numerical designation in its order of establishment and preceded by the first letter of the surname of the unit chief. Fly level points and bench marks were identified and denoted by symbols as follows:

Blue circle - Bench mark
Blue cross - checked spot elevation
Black cross - unchecked spot elevation

The fly level net is connected to the main vertical control net of the Coast and Geodetic Survey. No vertical control of other agencies was used. The following are the USC&GS bench marks used to control the fly levels:

H-114, G-114, B-232, C-232, F-114, N-45, PTS 21$\frac{5}{8}$(USGS), and P-45.

The following list of photographs were used for identifying the bench marks and fly level points:

Airport area (contact prints, X-camera) - X-40; X-49 to X-51 incl., X-67, X-69, X-71, X-72, X-75, X-83, X-86, X-87, X-89 to X-92 incl., X-101, X-103, X-104, X-106, X-108, X-112, X-156, X-157, X-160, X-161, X-163, and X-165. (The work on these photos was checked by Mr. James A. Clear, Jr.)

Access road area (ratio prints, J-camera; also contour photos for the area). - J-4274, J-4275, J-4276, J-4282, J-4380, J-4382, and X-181A (ratio print, X-camera); the work on these photos was checked by Mr. E. L. Jenkins.

The fly levels have been recorded in 3 of 3 volumes (Wye Leveling, Form 634).

5. Contours and drainage.- 1:2,400 scale photographs (ratioed) were used for planetable contouring, except for the areas west of the highway in quadrangle T-9854, the eastern one-third portion of T-9849 and all of T-9850 which were done by the Kelsh Plotter.

Wooded and/or brush areas were cross-sectioned by employing manual labor to clear numerous lines. A bulldozer was used for 5.4 days to clear lines totaling 8.5 miles. The bulldozed lines were spaced 500-600 feet apart, and additional lines then were brushed manually between them.

The drainage pattern was developed and resolved by using a combination of several methods in varying degrees. These methods were:

(1) The drainage provided by the Washington Office which had been transferred from Air Force photographs covering the project area and on which the drainage was visible. This was the most important and valuable source. Although the general pattern of the drainage was good, it was necessary to make numerous corrections and adjustments to restore the refinement in the drainage which had been distorted or destroyed to a large extent because of the great difference in photograph scales when the drainage in the Washington Office was transferred from one set to a different set of photographs.

(2) Recent USGS, 1:20,000 topographic maps (ratioed to 1:2,400) were used, but they were found to be useful only in a general way (true of their contours also). Distortion of detail and inaccuracy of scale largely nullified their usefulness. In addition, the drainage pattern noted at 1:20,000 scale on these maps was incomplete for mapping at 1:2400.

(3) Extensive and intensive stereoscopic study of the field photographs.

(4) Field investigation and planetable development of drainage.

Unit chiefs engaged in contouring were instructed to develop the drainage pattern and the expression of contours with care and to do this in pencil on the field photographs; the field work was then checked, the contours reshaped, if needed, and inked.

Junctions between photographs and the stereoscopic work (Kelsh Plotter) have been made and cross-referenced. In areas where the contours were indicated by dashed lines

by the Kelsh plotter, spot elevations were established on the photographs and called to the attention of the compiler by appropriate notes. Additional areas omitted by the Kelsh Plotter were contoured in the field.

Vertical accuracy tests were run on photographs soon after the contouring was started as a check on the quality of the topographer's work, which were found to be satisfactory. The tests were run on the following photographs (ratio): X-70(B), X-90(B), and X-161(B).

The following photographs (ratio) were used for contouring:
Airport area.- X-40(A), X-71(A), X-72(A), X-84(A) X-85(A), X-86(A), X-87(A), X-88(A); X-89(A), X-90(A), X-91(A), X-92(A), X-101(A), X-102(A), X-103(A), X-104(A), X-105(A), X-106(A), X-107(A), X-108(A), X-108(B), X-109(A), X-110(A), X-111(A), X-112(A), X-156(A), X-159(A), X-160(A), X-160(B), X-161(A), X-162(A), X-163(A), X-164(A), J-4325, J-4326, J-4327, J-4329, J-4330, and J-4331.

Access road.- X-181(A), J-4274, J-4275, J-4276, J-4282, J-4372, J-4380, and J-4382.

6. Woodland cover.- Inapplicable.

7. Shoreline and alongshore features.- Inapplicable.

8. Offshore features.- Inapplicable.

9. Landmarks and aids.- There are no aeronautical aids in the area.

10. Boundaries, monuments, and lines.- This phase of the work was handled independently by a separate unit in charge of Mr. John M. Neal.

11. Other control.- Except for the location of boundary monuments no additional control was established. This phase of the work was done by the unit referred to under side heading 10.

12. Other interior features.- All buildings, which had an appraisal value, were identified and classified. The official names of public buildings and churches were noted. Buildings under construction and excavations were noted as such. All roads and trails were classified. Route numbers and names were submitted with the geographic names data. Cemeteries, individual graves, and other interior features were identified and labeled.

13. Geographic names.- A special report on geographic names was not considered necessary because of the few names involved; in view of this, all the essential data and information were submitted on the following mosaics labeled:

1) Geographic Names Base Map of Airport Site
2) Geographic Names Base Map of Access Road

14. Special reports and supplemental data.- All records and field data on this project were submitted to the Washington Office.

6 of 6 volumes of traverse measurements and 13 of 13 volumes of observations of horizontal directions were submitted with reference to the third-order traverses run and discussed under sideheading 3.

Field inspection was accomplished on the following photographs (ratio):

Airport site.- X40(C), X-50(C), X-51(C), X-52(C), X-57(C), X-69(C), X-71(C), X-73(C), X-75(C), X-84(C), X-86(A), X-86(C), X-88(A), X-88(C), X-90(C), X-92(C), X-103(C), X-104(C), X-106(C), X-107(B), X-108(C), X-109(B), X-110(C), X-112(C), X-156(C), X-159(C), X-161(C), X-163(B), X-163(C), and X-165(C).

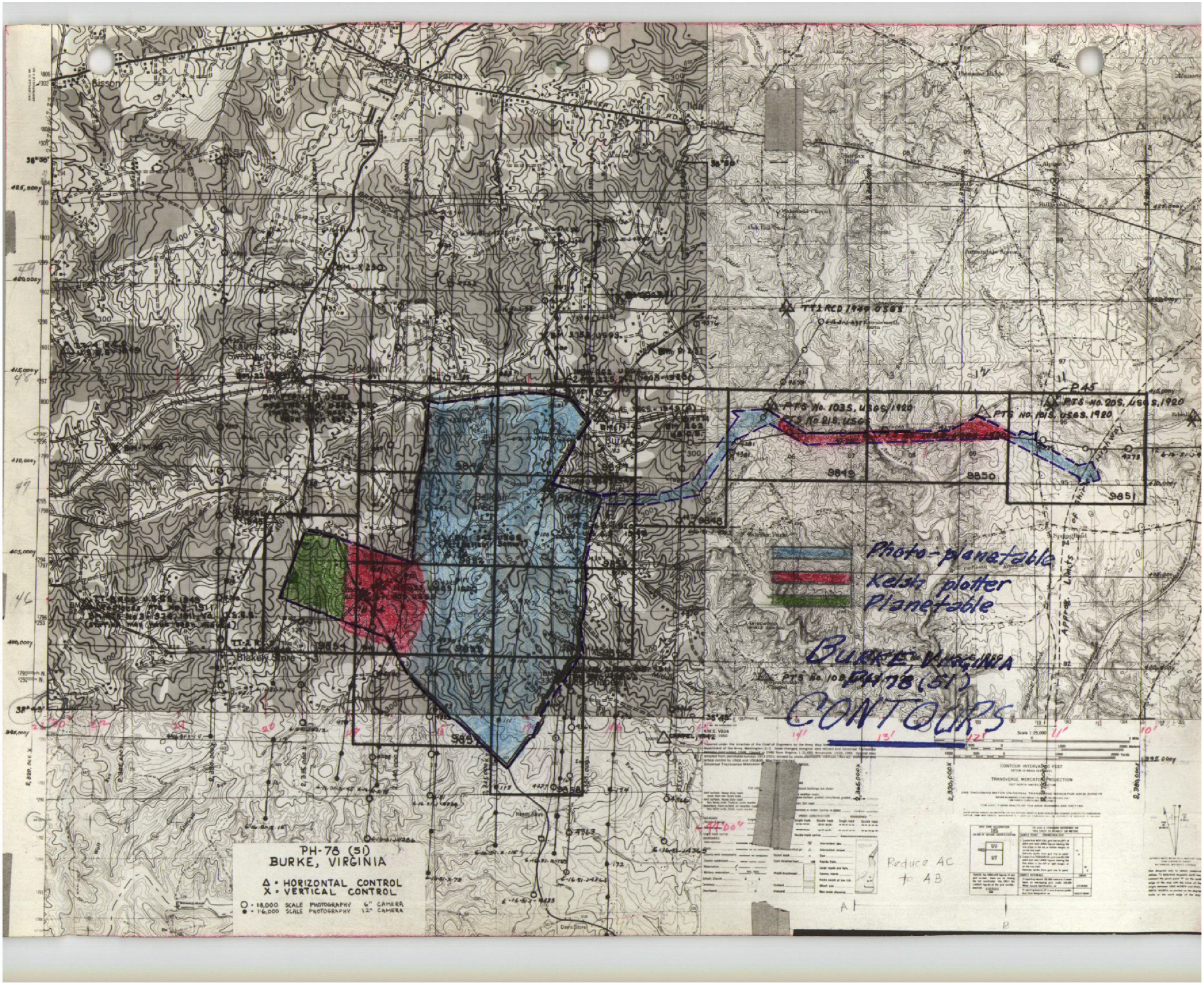
Access roads.- X-182(C), J-4274 to J-4278 incl., and J-4380.

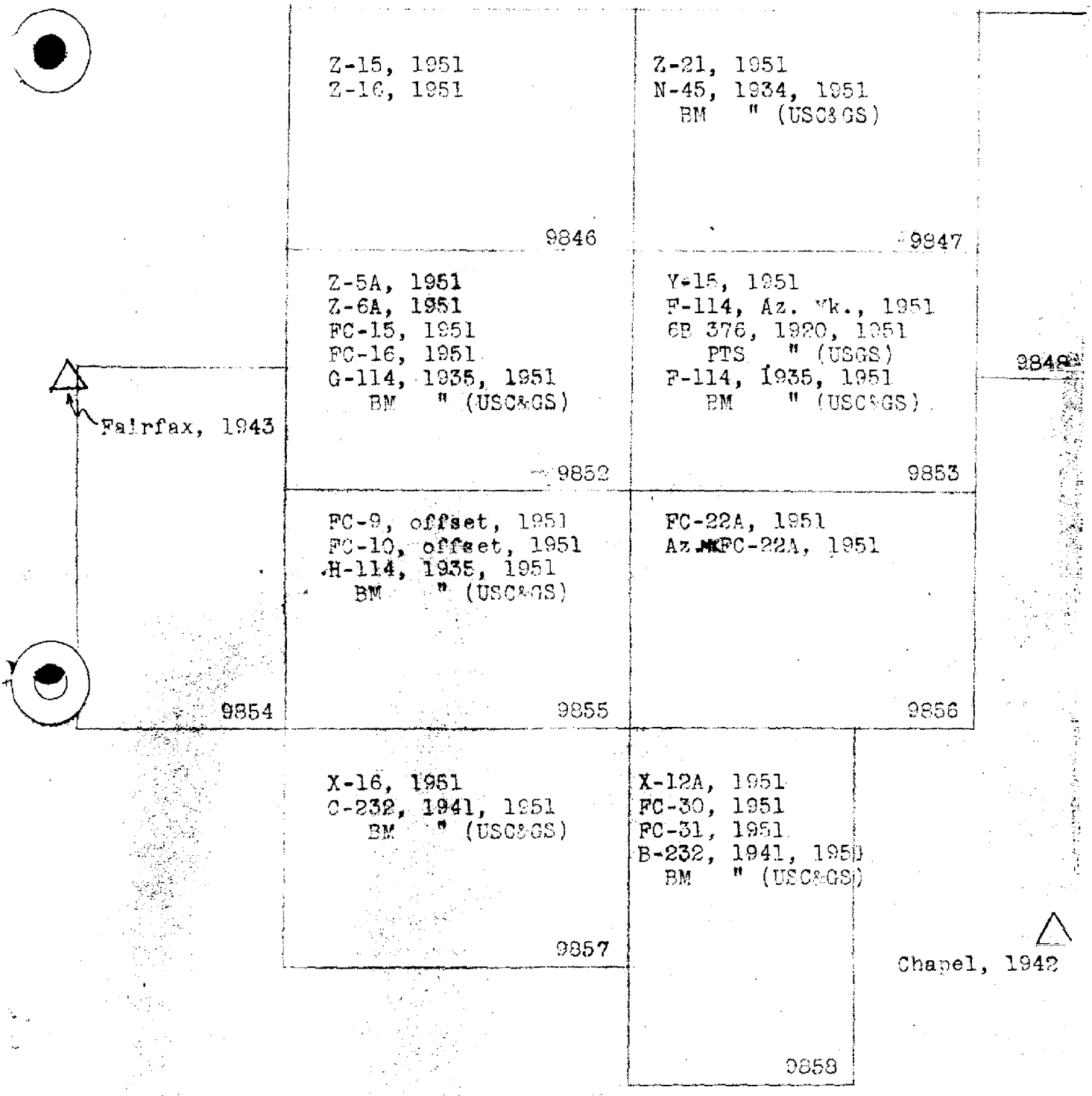
Refer to control station identification cards for the photographs used in control identification. For list of photographs used in identifying vertical control and for plane-table contouring refer to sideheadings 4 and 5, respectively.

Respectfully submitted:

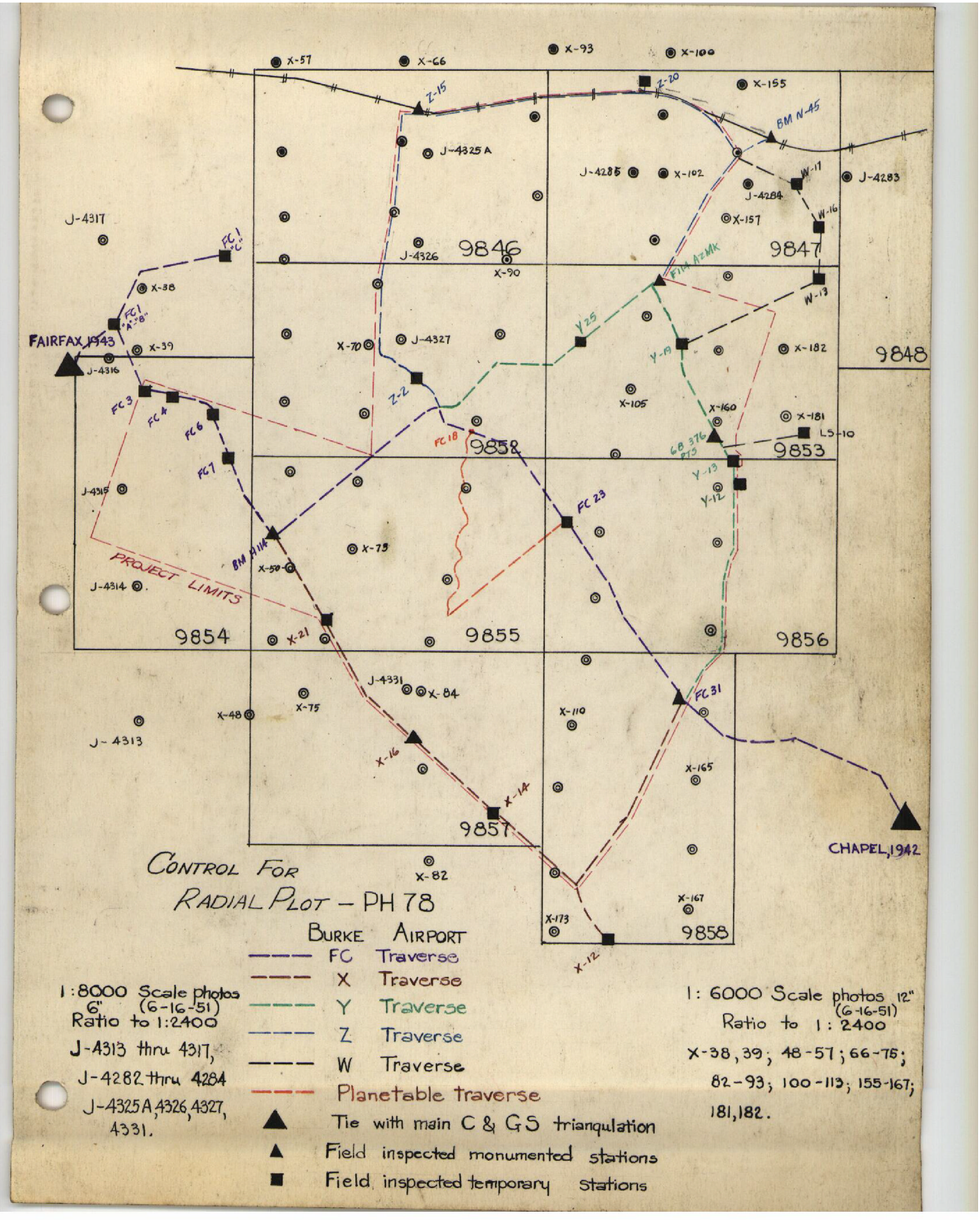
Charles Hanavich

Charles Hanavich
Survey and Cartographic Engineer


PH-78 (51)
BURKE, VIRGINIA
Δ • HORIZONTAL CONTROL
X • VERTICAL CONTROL
○ • 18,000 SCALE PHOTOGRAPHY 6" CAMERA
● • 1"=6,000 SCALE PHOTOGRAPHY 12" CAMERA
Photo-planetable
Kelsh plotter
Planetable
BURKE, VIRGINIA
PH-78 (51)
CONTOURS
Reduce AC
to AB



Note: Only recoverable monumented stations of 3rd order accuracy traverse are listed.



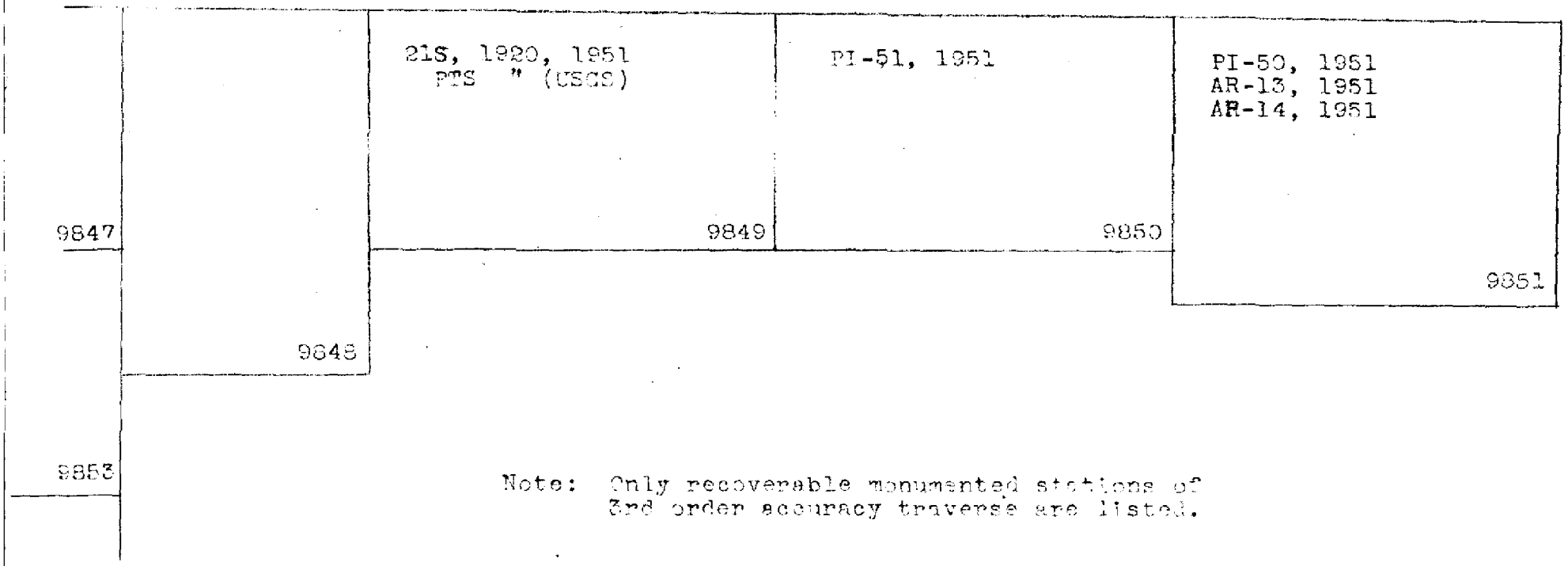
CONTROL FOR
RADIAL PLOT – PH 78

BURKE AIRPORT

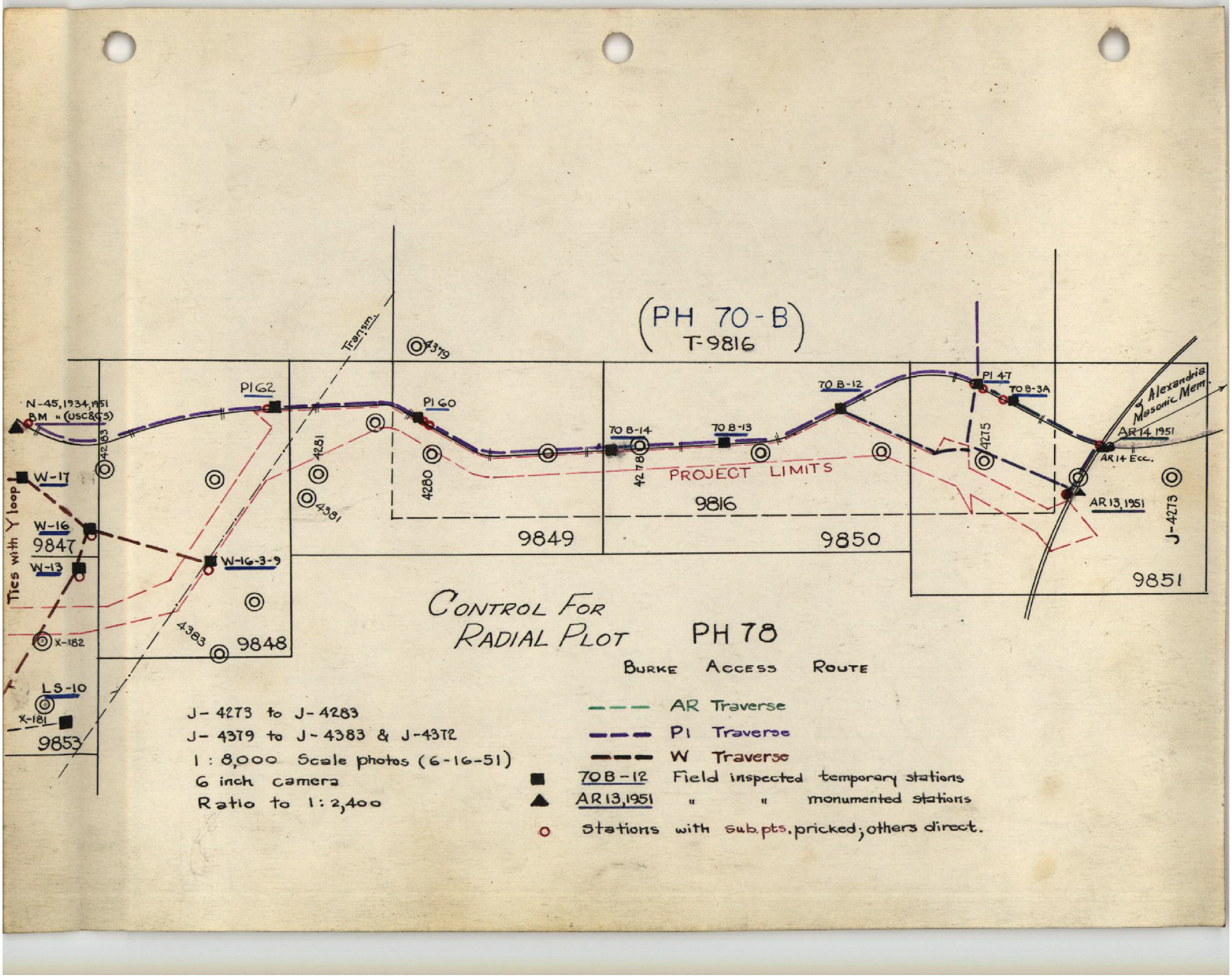
FC Traverse
X Traverse
Y Traverse
Z Traverse
W Traverse
Planetable traverse
▲ Tie with main C & GS triangulation
▲ Field inspected monumented stations
■ Field inspected temporary stations

1:8000 Scale photos 6" (6-16-51)
Ratio to 1:2400
J-4313 thru 4317,
J-4282 thru 4284
J-4325A, 4326, 4327,
4331.

1: 6000 Scale photos 12" (6-16-51)
Ratio to 1: 2400
X-38, 39; 48-57; 66-75;
82-93; 100-113; 155-167;
181, 182.



Note: Only recoverable monumented stations of 3rd order accuracy traverse are listed.


(PH 70-B)
T-9816
Transm.
4379
PI 62
PI 60
PI 47
70 B-12
70 B-3A
70 B-14
70 B-13
N-45, 1934, 1951
BM " (USC&GS)
4283
4281
4280
4278
4275
4381
4383
PROJECT LIMITS
9816
9849
9850
9851
9848
9847
9853
W-17
W-16
W-13
W-16-3-9
Ties with Y loop
X-182
LS-10
X-181
Alexandria Masonic Mem.
AR 14, 1951
AR 14 Ecc.
AR 13, 1951
J-4273
CONTROL FOR RADIAL PLOT PH 78
BURKE ACCESS ROUTE
J-4273 to J-4283
J-4379 to J-4383 & J-4372
1:8,000 Scale photos (6-16-51)
6 inch camera
Ratio to 1:2,400
AR Traverse
PI Traverse
W Traverse
70B-12 Field inspected temporary stations
AR 13, 1951 " " monumented stations
Stations with sub.pts. pricked; others direct.

Photogrammetric Plot Report:

21. Area covered:

This report covers the topographic maps within the proposed Burke Airport site, and the access route.

Burke Airport		Access Route
T-9846	T-9855	T-9848
T-9847	T-9856	T-9849
T-9852	T-9857	T-9850
T-9853	T-9858	T-9851
T-9854		

22. Method:

The radial line plot was accomplished in the usual manner with the base grids ruled on vinylite at 1000-foot intervals at 1:2400 scale. No polyconic projection was ruled and the base grids were carried over as manuscripts for compilation.

The "X" series photographs were flown at 1:6000 contact scale with a 12" camera and enlarged to 1:2400 scale.

The "J" series photographs were flown at 1:8000 contact scale with a 6" camera and enlarged to 1:2400 scale.

Field inspection and identification of horizontal control were furnished for transfer to the office prints. The photographs were prepared for radial plotting using the 4 mm. diameter floating circle technique for the stereoscopic transfer of both control and secondary pass points. Positype, low-shrinkage paper was used with the special paper distortion templet plate in the ratio printer. Vinylite templets were used with the aid of the paper distortion templet and all rays were adjusted as needed. The "X" series ratios had generally less paper distortion due to the lesser format of 22½ inches square as compared with 30 inches for the "J" series.

Adequate traverse was run for control of the plot and 39 stations were field inspected and transferred to the office photographs (26 for Burke and 13 for the access route). The attached sheet indices show the traverse lines and the distribution of control. Although the Kelsh plotter was used to map partial areas in T-9849, T-9850, and T-9854 a continuous radial line plot was made for the entire area.

A satisfactory closure was made on all control, and the plot is considered strong. The intersections throughout the plot were drilled from the top through the several thicknesses with a number 80 twist drill with the aid of a small jig for holding the chuck in a vertical position. The points were circled with blue GPO ink on the back in the usual manner.

23. Adequacy of control:

The density of control desired was sketched on a mosaic of the area and submitted to the field for recovery. Where the radial plot subsequently showed weakness, additional control was requested on sheets T-9848, T-9852 and T-9854, and a satisfactory closure was accomplished with the additional recovery of sub. pt. hub FC4 and stations on the "W" line traverse near Burke.

24. Supplemental data:

None

25. Photography:

The photography for this plot was generally poorly flown as concerns side lap and the season the photography was authorized to be taken was not contributive toward good radial plotting. The high ratio factor to bring the prints to plotting scale resulted in image distortion on the perimeters, and the preparation for radial plotting in the side lap areas was particularly difficult. In addition a high percentage of deciduous tree coverage over the area made stereoscopic transfer of points mandatory and the shadows from large canopied trees made identification frustratingly difficult.

A recommendation is in order when issuing instructions for single lens photography to insist on approximately 50 percent side lap where the photographs are enlarged more than 2 diameters for radial plotting and subsequent compilation.

Tilts were computed for the "J"series photographs on T-9854 in an attempt to get a better plot solution. Rays were redrawn using the isocenter as the origin, but tilts were not so excessive as to improve the quality of intersections in this area.

26. Sketch and Form M-238812, Control stations:

Sketches showing the distribution and density of photographs and control used in the plot are attached to this report. Although the actual laydown of the plot was divided into (1) Burke proper, and (2) Access Route, the

plot is considered as one.

A summary sheet is also included as a part of this report wherein the disposition of all horizontal control is supplied that affects the area and is listed by manuscript numbers.

27. Accuracy of radial plot.

Property line surveys in progress during compilation of these sheets have necessitated further field surveys incidental to location of property corners. Photo points have been utilized in conjunction with this work and a check on the horizontal accuracy has been effected in several areas, namely T-9855, where a planetable traverse was run (sketch) and found to tie in decisively with the radial plot. Likewise, the areas of T-9849, T-9850, and T-9854 where the Kelsh plotter was used, the delineation of map details agreed in every instance.

Respectfully submitted:

Roscoe J. French

Roscoe J. French, Photogrammetrist

Approved:

L C Lande

L. C. Lande, Chief
Graphic Compilation Section

27 November 1951

31. Delineation:

Graphic methods were used on all manuscripts supplemented by planetable and Kelsh plotter on T-9854, and by Kelsh plotter on T-9849, T-9850, and T-9855. Field inspection data was furnished for all features and detail is shown to scale as nearly as is possible. Additional detail points were cut in and transferred to the field photographs as needed to control the photo-planetable contours.

32. Control:

Horizontal control was established by transit traverse between Fairfax, 1943 and Chapel, 1942 on Burke proper and between this tie and a tie with the Pleasant-Ilda line in the Annandale area for the access route. A sketch is attached to this report showing the various traverse loops which controlled the radial line plot.

Vertical control was established by running levels along all roads in the area from existing USC&GS bench marks. Numerous check level points appear on the manuscropts as furnished by the field inspection party.

33. Supplemental data:

None.

34. Contours and Drainage:

Contours were by photo planetable except as shown on the T2 data sheet enclosed for T-9849, T-9850, T-9854, and T-9855. Drainage was taken directly from the field inspection photographs in areas where the foliage obscured the detail. The thick foliage in the forested areas made contouring difficult and the drainage pattern more generalized than usual. A portion of Possum Branch which was a common line between two properties was located by planetable traverse and hence shows more detail than drainage on other similar sites (T-9855).*

35. thru 37. Inapplicable

38. Control for Future Surveys:

Third order traverse was established to control the survey and is listed by sheet number in the radial plot report. Forms 525 were submitted for the recoverable

* That part of South Run on T-9855 north to the bridge was later surveyed by the same method during property survey work. RJF

monumented traverse stations and Forms 685 for the recoverable bench marks. The bench marks were surveyed as part of the traverse and two USGS PTS' were included and a new position established for them. Computations on the project are filed in Photogrammetry files under Ph-78(51). The positions on all of the stations listed are unadjusted field positions.

A total of 29 traverse stations were established and identified.

39. Junctions:

Satisfactory junction was made between manuscripts, but no attempt was made to junction with smaller scale USGS quadrangles due to the large scale difference. A satisfactory junction was made with USC&GS survey T-9816 at 1:4,800 scale on the access route.

40. Horizontal and Vertical Accuracy:

No field check has been made other than traverse incident to property line surveys which show the survey to be within accuracy requirements.

The only vertical accuracy tests made were run on photographs when the contouring first started as a check on the quality of the work. They were considered adequate. Photographs tested were ratio prints X-70(B), X-90(b), and X-161(B).

Photo-planetable spot elevations were observed in the junctions between the Kelsh and planetable work for verification of the contours in those areas. All discrepancies were resolved and corrected.

41. Property surveys:

Considerable open traverse was used in controlling the property and acreage surveys. Recovered corners established by traverse are circled and labeled pipe, stake, stone, etc. No 524 cards were submitted for property corners. Twelve temporary photo-stations were used in connection with property surveys.

46. Comparison with existing maps:

Fairfax, Va.	1:25,000	AMS 1943
Fairfax, Va.	1:62,500	USGS 1915
Washington & vicinity	1:31,680	USGS 1949

47 and 49. Nautical charts and hydrography:

Inapplicable

48. Geographic Names List:

Copy attached

50. Runway grid:

A special runway reference grid was applied in pencil per CAA instructions at intervals of 500 feet. The orientation is shown on separate sheets attached to this report.

X and Y coordinates were furnished by CAA for the tie as shown on the manuscripts affected for the Burke site only.

T-9852:

Burke Road Va. No. 645
Pohick Road Va. No. 641
New Cut Road Va. No. 653
Belleair
Little Zion Baptist Church

T-9853:

Sawmill Road Va. No. 643
Keene Mill Road Va. No. 644
Five Forks
Burke Road Va. No. 645
Burke School
Hatchs Lake

T-9854:

Ox Road Va. No. 123
Va. No. 645
Sandy Run

T-9855:

Ox Road Va. No. 123
Burke Road Va. No. 645
Donovans Corner
South Run
Possum Branch
Pohick Road Va. No. 641

T-9856:

Pohick Road Va. No. 641
Keene Mill Road Va. No. 644
Peyton Branch
Sangster Branch
Wild Cherry Run
Sawmill Road Va. No. 643

T-9857:

Ox Road Va. No. 123
South Run
Va. No. 643

T-9858:

Sawmill Road Va. No. 643
Ox Road Va. No. 123
South Run
Lee Chapel
Pohick Road Va. No. 641

Names underlined in red are approved. 11-28-51
L Heck

GEOGRAPHIC NAMES:

T-9846:

New Cut Road
Va. No. 653
Southern Railway
Va. No. 651
Pohick Creek

T-9847:

Pohick Creek
Burke Road
Va. No. 645
Southern Railway
Burke
Burke Post Office
Burke Volunteer Fire Department
Va. No. 652
Burke Methodist Church

T-9848:

Va. No. 652
Pohick Creek
Hatchs Lake
V.E.P. Co.
Southern Railway
Rolling Road
Va. No. 638
Homewood Subdivision
Stewart Street, No. 833
Herbert Street, No. 834 (also 835 ?)
Hall Street. No. 841
Boothe Street, No. 835 (?) or 833 (?)

Discrepancy actually exists in route sign designation as of field inspection of July-August, 1951.

T-9849:

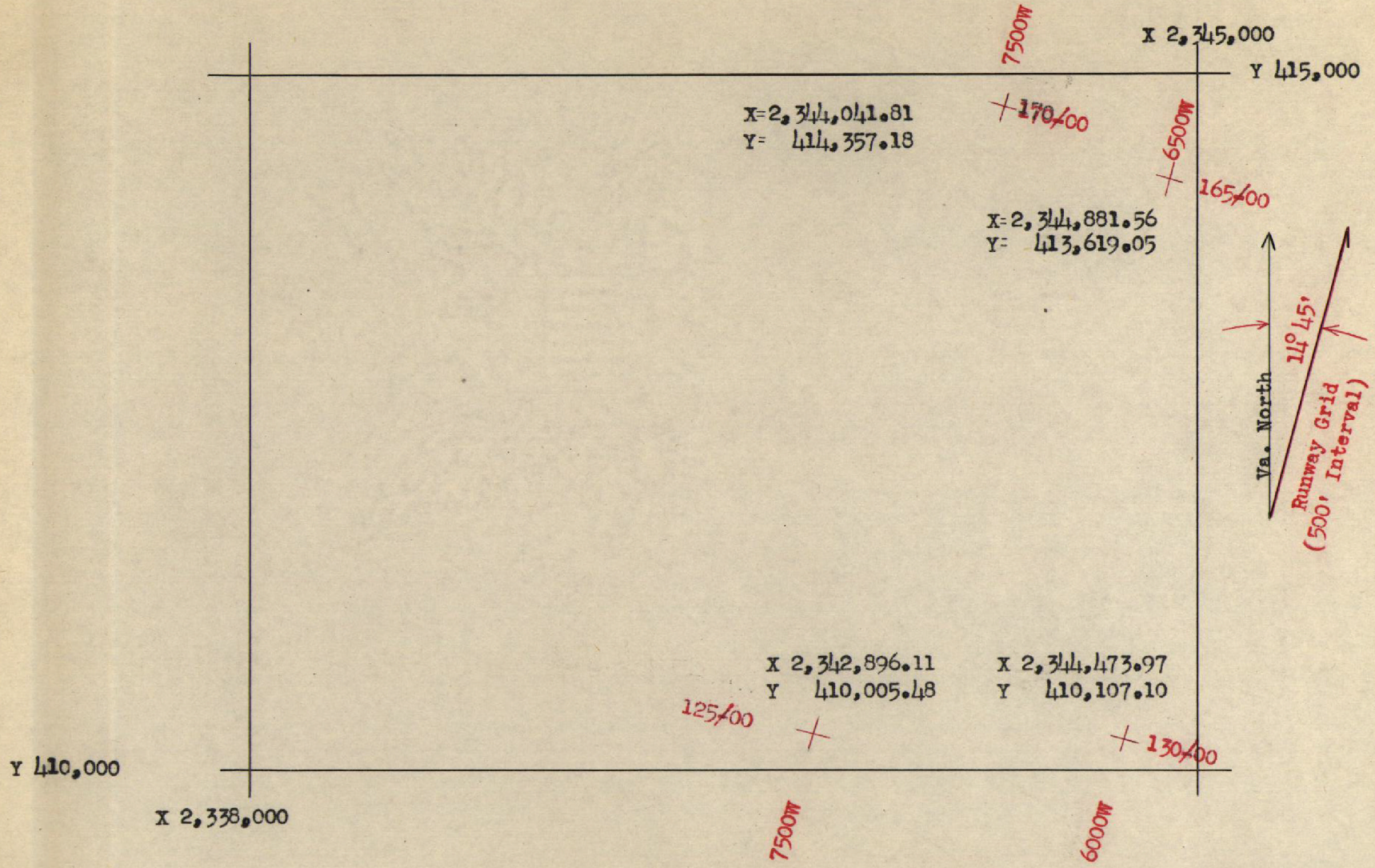
Southern Railway
Ravensworth Station
V.E.P. Co.
Va. No. 638

T-9850:

Southern Railway
Accotink Creek
Springfield Dam

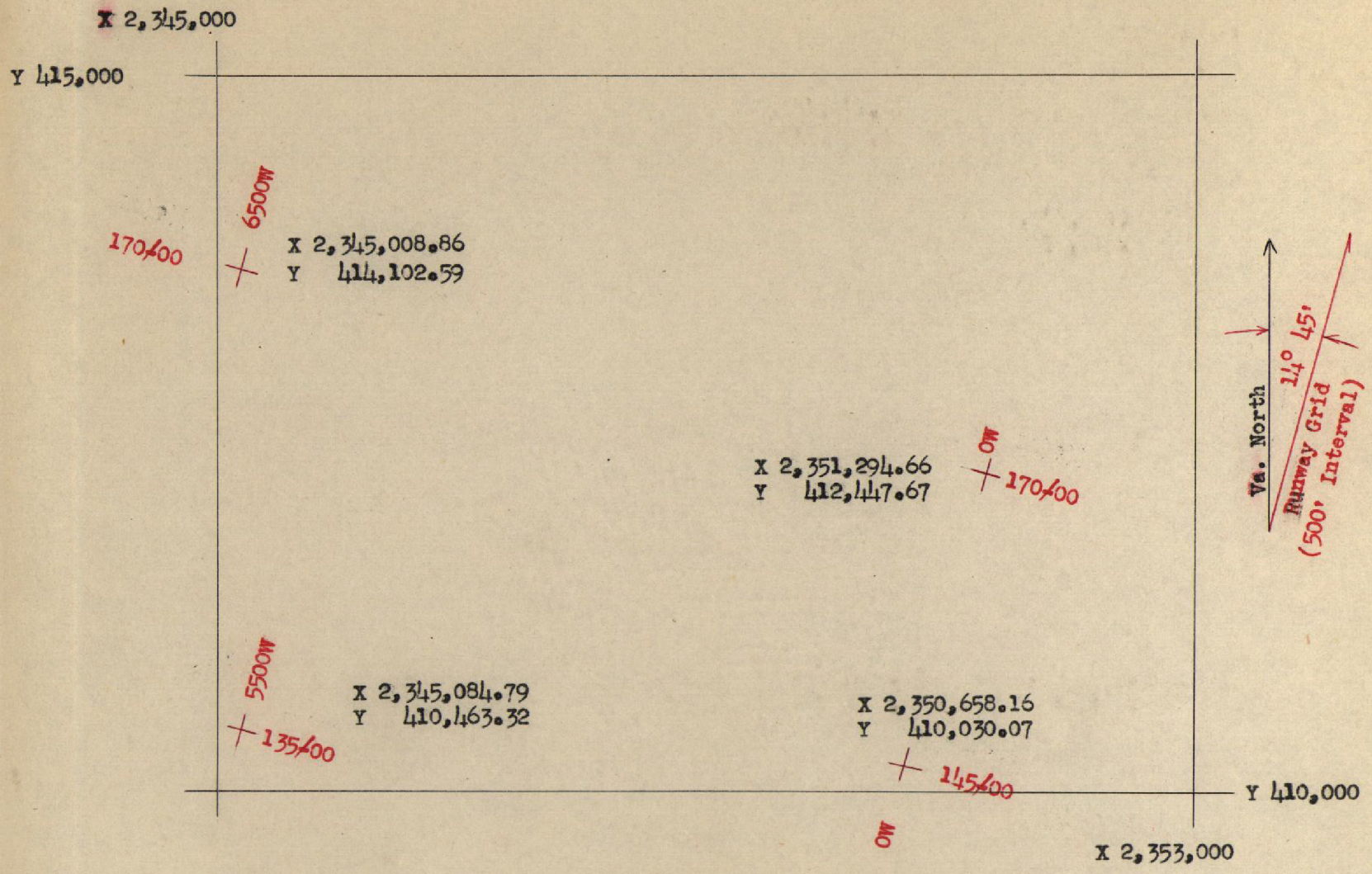
T-9851:

Henry G. Shirley Memorial Highway
Va. No. 350
Va. No. 617
Springfield Station
Southern Railway



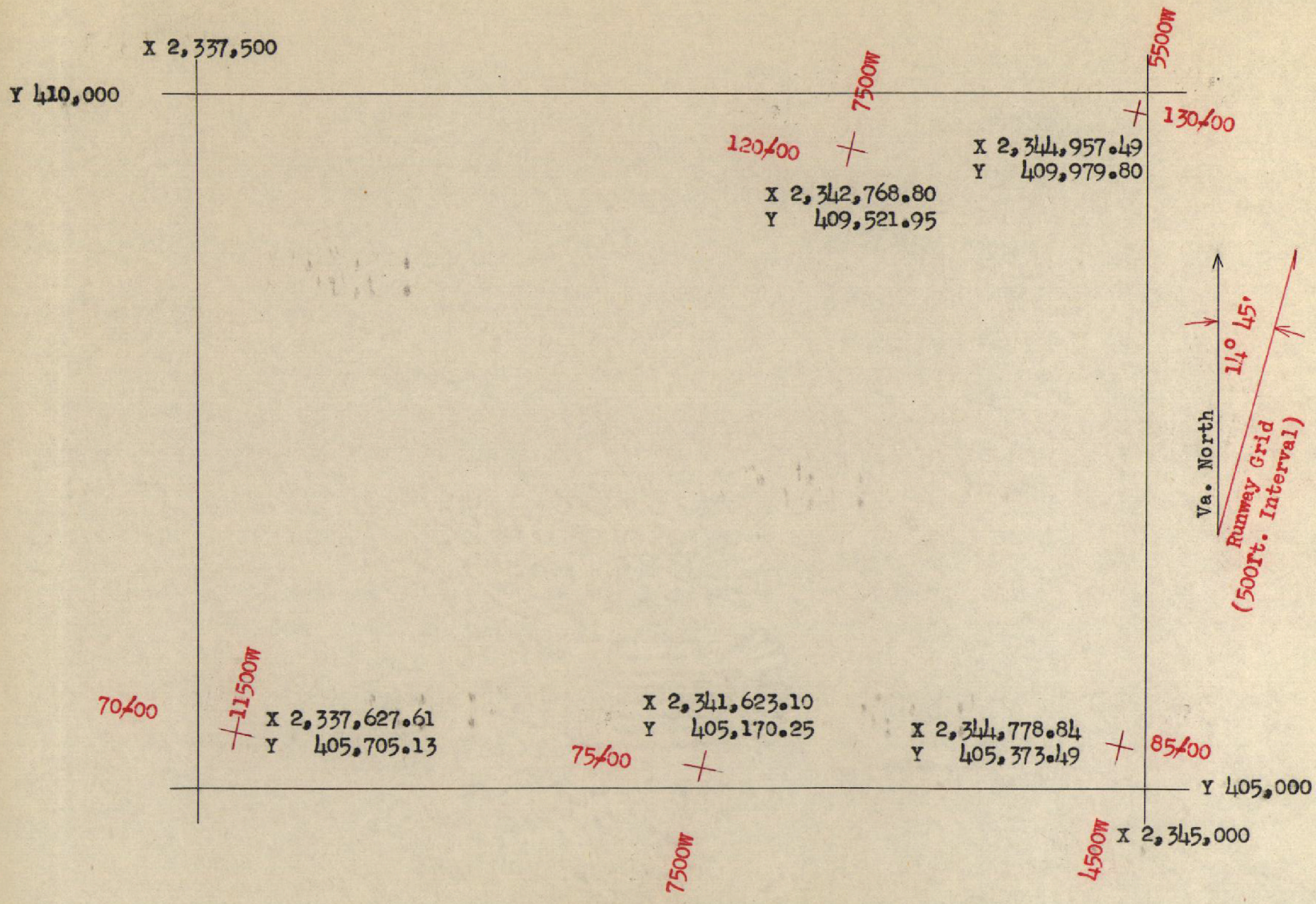
GRID LAYOUT

T-9846



GRID LAYOUT

T-9847



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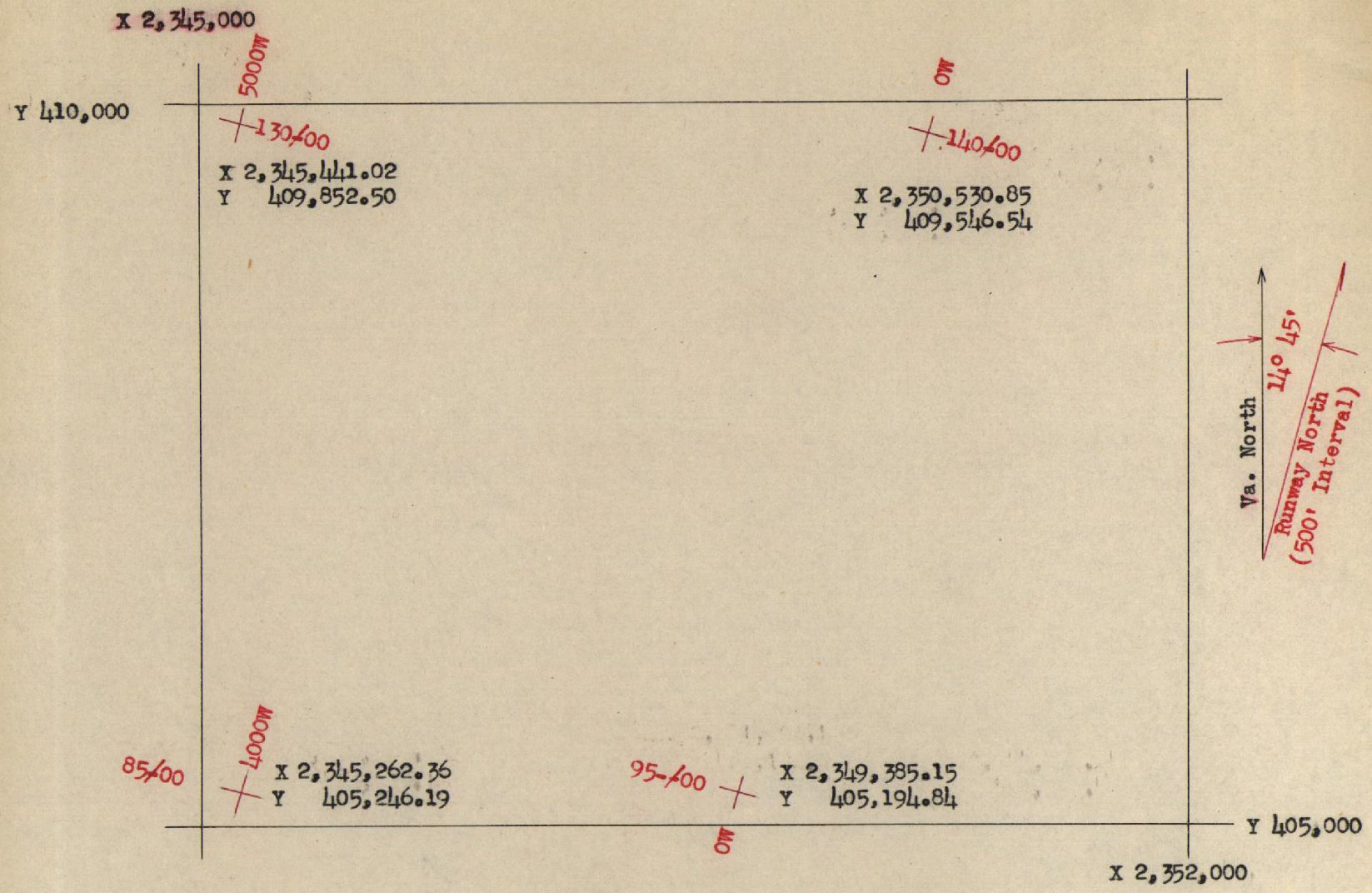
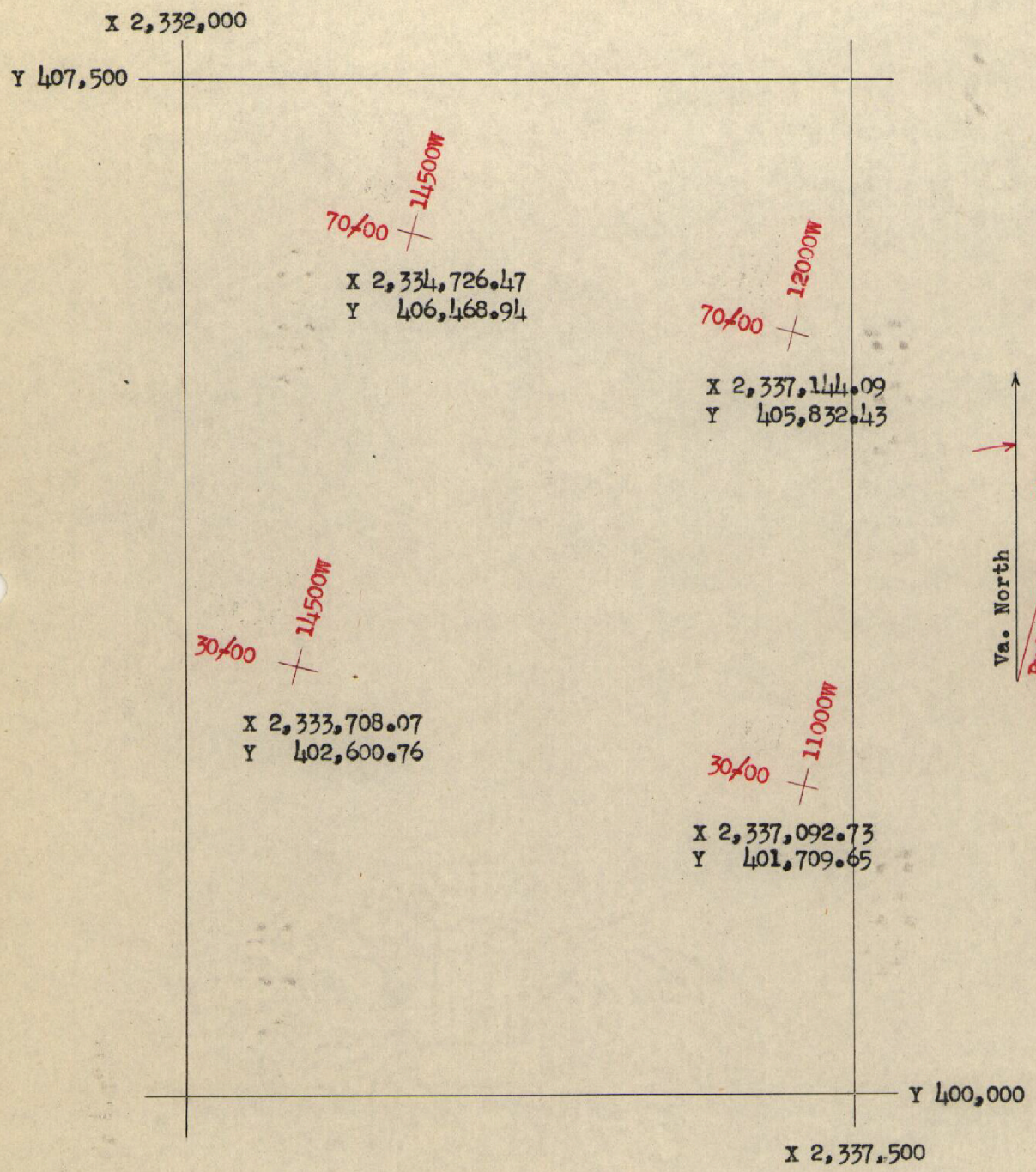
T-9852



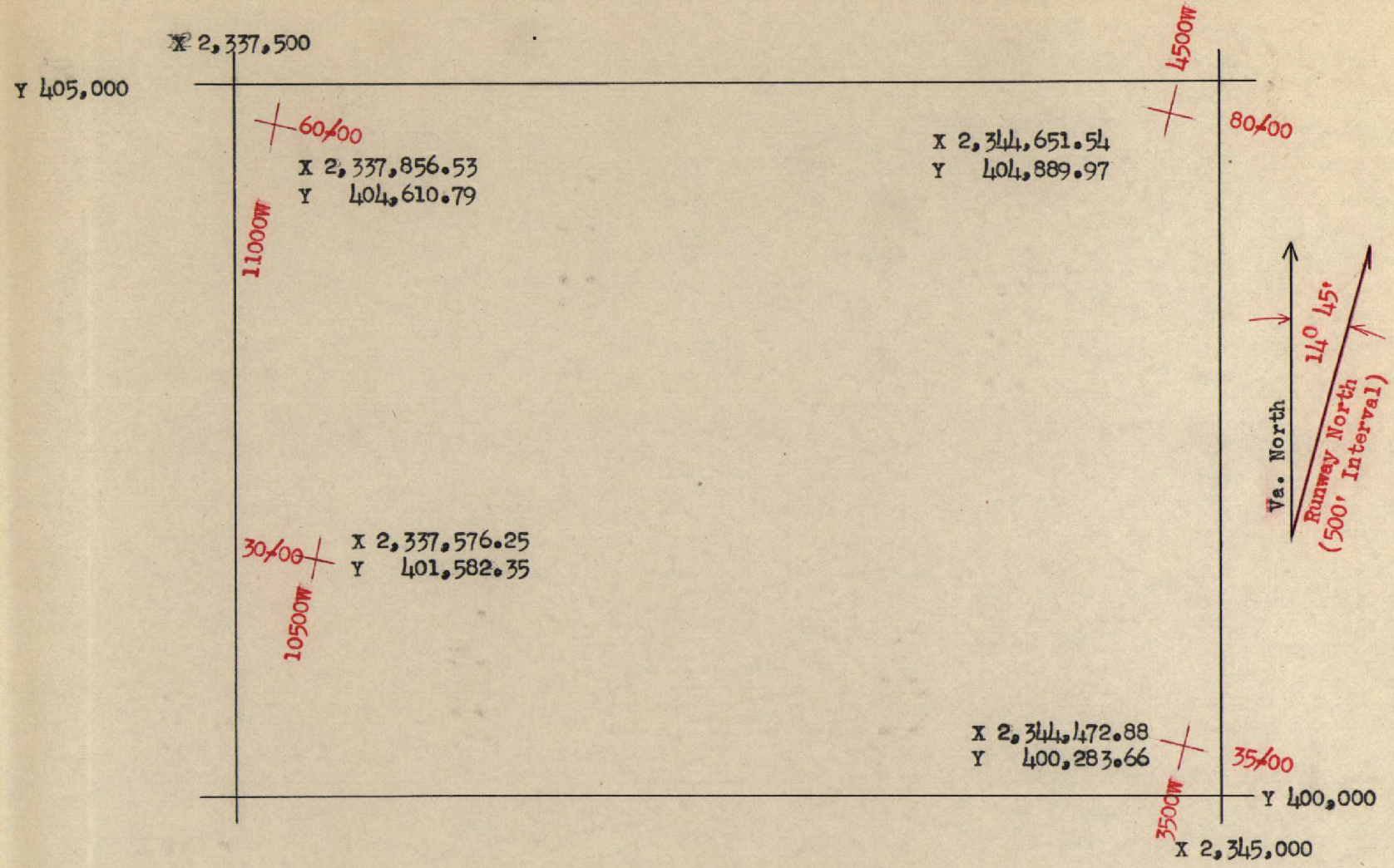
GRID LAYOUT

T - 9853



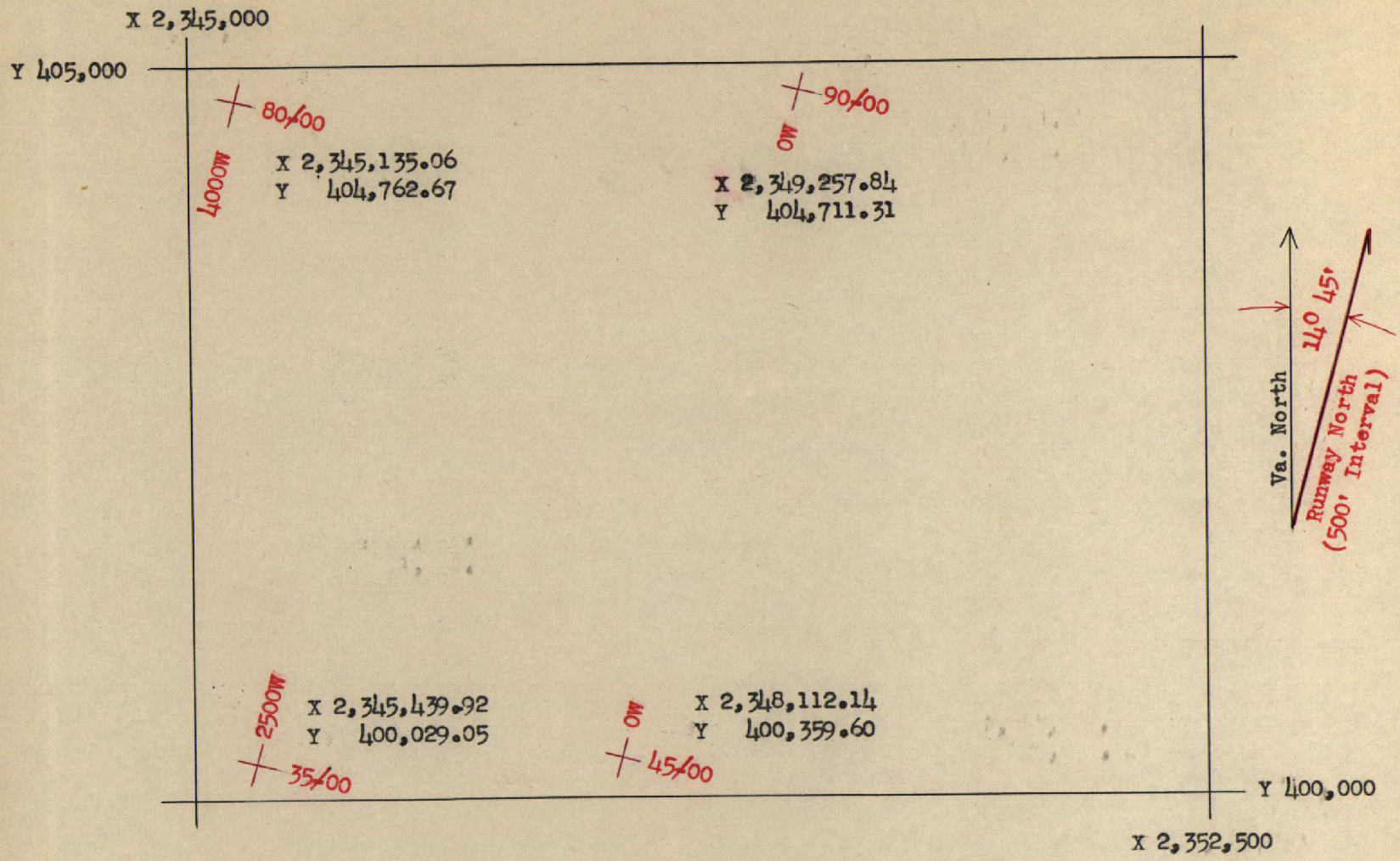
GRID LAYOUT

T-9854



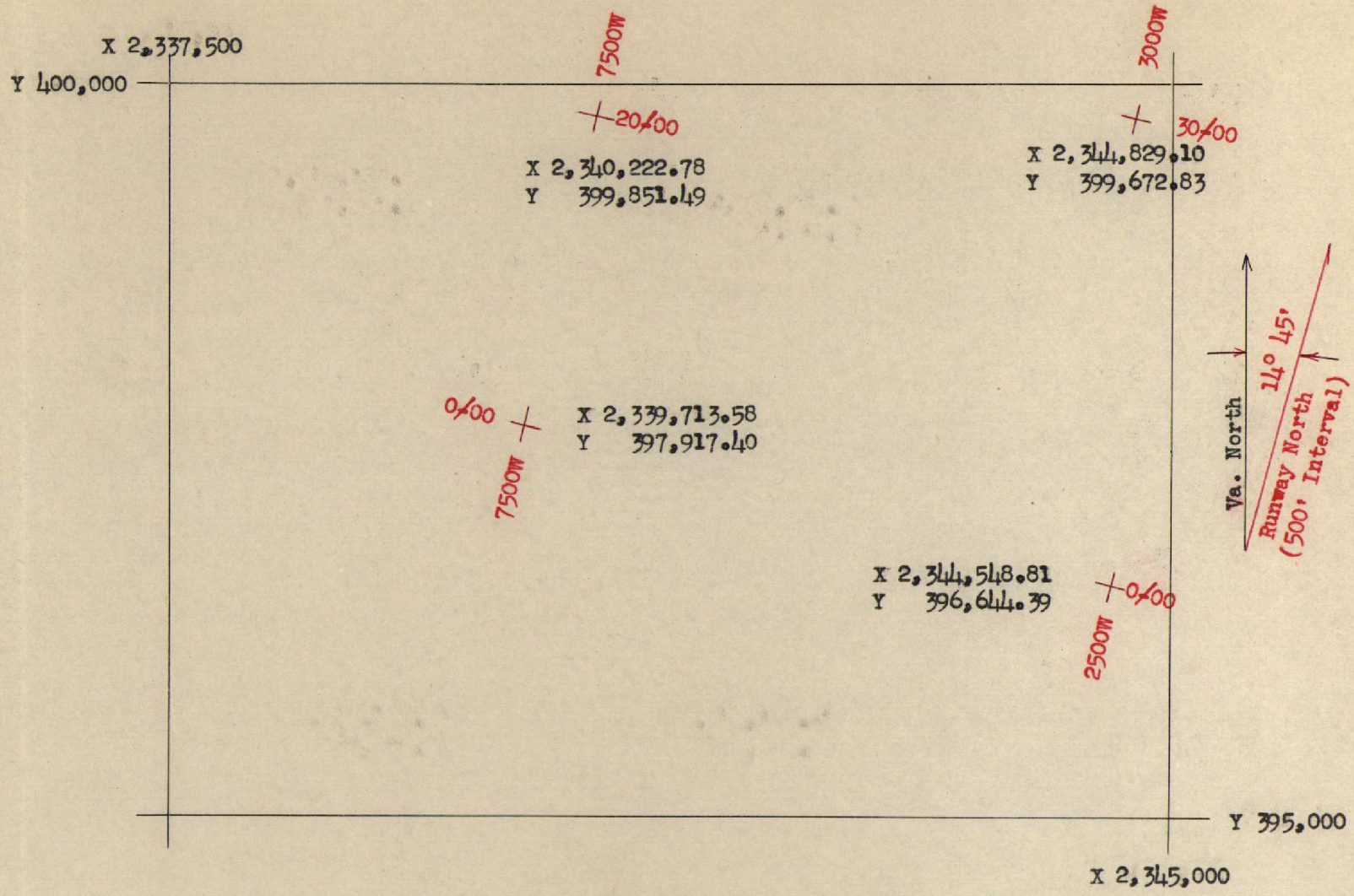
GRID LAYOUT

T-9855



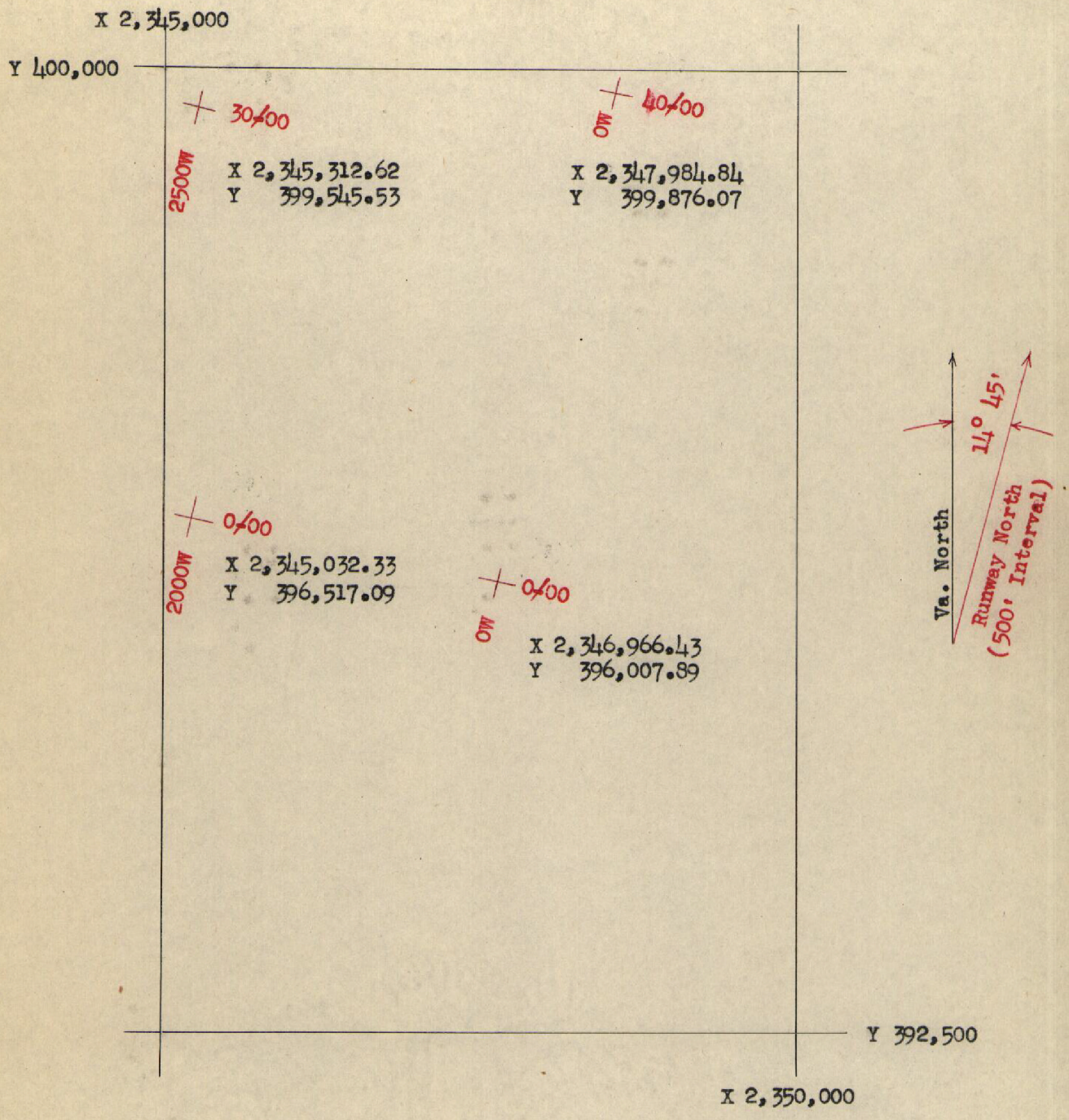
GRID LAYOUT

T-9856



GRID LAYOUT

T-9857



GRID LAYOUT

T-9858

KEUFFEL & ESSER CO., N. Y. NO. 358-3L
8 × 8 to the inch, 8th lines heavy.
MADE IN U. S. A.

SUMMARY SHEET — HORIZONTAL CONTROL PH-78 BURKE VA.

STATION NAME	Type station	Recovery data: Photo	Recovery data: Date	Recovery data: Method	Tolerance	Remarks
T-9846						
Z-15, 1951	Monument	X-56	7-10-51	Sub. sta.	Held	
Z-16, 1951	Mon	—	—	—	—	Form 525, 1951
T-9847						
Z-20,	Hub	X-93	7-11-51	Sub. sta.		
Z-21, 1951	Mon	—	—	—	—	Form 525, 1951
{N-45, 1934, 1951 / BM 4 (USC&GS)}	Mon	X-184	7-11-51	Sub. sta.	Held	Vertical control Form 685 6/51
W-16	Hub	X-187 C	9-28-51	Sub. sta.		
W-17	Hub	X-184 A		direct	Tangent	Poor Sub. pt.
T-9848						
P1-62	Hub	J-4381	7-25-51	Sub sta.	Held	—
W-16-3-9	Hub	J-4383	10-4-51	Sub. sta.	Held	open traverse
T-9849						
P1 60, 1951	Hub	J-4380	7-26-51	Sub. sta. A & B	Held both	on same card
{215, 1920, 1951 / PTS 11 (USGS)}	Mon	—	—	—	—	Form 525, 1951
T-9850						
708-14	described point	O-318 ratio	2-24-51	direct	Held	also T-9816
708-13	"	O-305 ratio	2-24-51	direct	Held	poor station
708-12	"	O-266 ratio	2-23-51	direct	Held	—
P1 51, 1951	Mon	—	—	—	—	Form 525, 1951
T-9851						
P1 47	Hub	J-4275	7-26-51	Sub sta A & B	Held tangent	on same card
708-39	described point	O-396	3-10-51	direct	Held tangent	poor image
AR-13, 1951	Mon	J-4274	7-26-51	Sub sta.	Held	—
AR-14, 1951	Mon	J-4274	7-26-51	Sub sta.	Held	—
P1 50, 1951	Mon	—	—	—	—	Form 525 1951
T-9852						
Z-7	Hub	X-70	7/10/51	Sub. sta.	Held	
Z-5A, 1951	Mon	—	—	—	—	Form 525, 1951
Z-6A, 1951	Mon	—	—	—	—	" "
FC X5, 1951	Mon	—	—	—	—	" "
FC 16, 1951	Mon	—	—	—	—	" "
G 14, 1935, 1951	Mon	—	—	—	—	BM (USC&GS)
T-9853						
Y 13	Hub	X-160	7-10-51	Sub sta.	Held	Strong
Y 15, 1951	Mon	—	—	—	—	Form 525, 1951
Y 19	Hub	X-159 C	9-25-51	Sub. sta.	Held	poor point
Y 25	Hub	X-89	7-13-51	Intersection sub sta.	Held	
F 14, A2 NK 1951	Mon	X-158	7-10-51	Sub sta.	Held	
G 8 376, 1920, 1951	Mon	X-159 C	9-25-51	Sub. sta.	Held	PTS (USGS)
F 14, 1935, 1951	Mon	—	—	—	—	BM (USC&GS)
LS 10	Hub	X-181 C	9/21/51	Sub sta.	Held	open traverse
W-13	Hub	X-182 C	9/28/51	Sub sta.	Held	
T-9854						
FAIRFAX, 1943	Main scheme USC&GS triangulation — Falls West of street - No pricking card.					
FC 1	Hub	X-38	7-12-51	A = Sub sta.	Held	Tapped North
		X-38	7-12-51	B = Trav. inter. sub sta.	Held	1 of T-9854
		X-38	9/12/51	C = Trav. inter. "	Held	
FC 3	Hub	O-234 contact	Feb '54	A = Sub sta.	Tangent	indefinite point PH 70
FC 4	Hub	X-40	9-17-51	Sub. sta.	Held	
FC 6	Hub	O-234 contact	7-3-51	A = Sub sta.	Held	PH 70
"	"	X-52	7-3-51	B = Sub sta.	Tangent	Weak stations
FC 7	Hub	O-233 contact	Feb. 51	A = Sub sta.	Held	Strong
"	"	X-51	7-2-51	B = Sub. sta.	Held	Weak
T-9855						
X-21	Hub	O-231 contact	7-2-51	A = Sub sta.	Tangent	Weak } some sta.
"	"	X-50	7-2-51	B = Sub sta.	Tangent	Weak }
H-114, 1951	Mon	O-232 contact	Feb. 51	A = Sub sta.	Held	Strong BM (USC&GS)
"	"	X-51	7-2-51	B = Sub. sta.	Held	Strong
FC 9 o/s, 1951	Mon	—	—	—	—	Form 525, 1951
FC 10 o/s, 1951	Mon	—	—	—	—	Form 525, 1951
T-9856						
FC 22 A, 1951	Mon	—	—	—	—	Form 525, 1951
FC 22 A, A2 NK	Mon	X-87	7-13-51	4th order	Position computed	Form 525, 1951
FC-23	Mon	X-87	7-10-51	Sub. sta.	Held	Strong
Y-13	Hub	X-160	7-16-51	Sub. sta.	Held	"
Y-12	Hub	X-161	9-25-51	Sub. sta.	Held	"
T-9857						
X-16, 1951	Mon	X-83	7-9-51	Sub. sta.	Held	Strong
X-15	Hub	X-82	7-13-51	Sub. sta.	Held	Strong
C 232, 1941, 1951	Mon	—	—	—	—	BM (USC&GS) 525
T-9858						
FC 31, 1951	Mon	X-164	7-10-51	Sub. sta.	Held	Strong
FC 30, 1951	Mon	—	—	—	—	Form 525, 1951
X-12 A, 1951	Mon	—	—	—	—	" "
X-12	Hub	X-114	7-12-51	Sub. sta.	Held	Strong
B 232, 1941, 1951	Mon	—	—	—	—	BM (USC&GS)
CHAPEL, 1942	Main scheme USC&GS triangulation — falls E of street - No pricking card.					

Virginia State coordinate positions are available on all pricking cards of stations used on plat.

Do not type (For reviewers use)

NAUTICAL CHARTS BRANCH

SURVEY NO. T-9846 thru T-9858

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

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.