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RADC-TR-65-538



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RADC PHOTOGRAMMETRIC RANGE

Robert Cracknell
Dean Merchant
Donald Zulch

TECHNICAL REPORT NO. RADC-TR- 65-538
May 1966

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Space Surveillance and Instrumentation Branch
Rome Air Development Center
Research and Technology Division
Air Force Systems Command
Griffiss Air Force Base, New York

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RADC PHOTOGRAMMETRIC RANGE

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Dean Merchant
Donald Zulch**

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FOREWORD

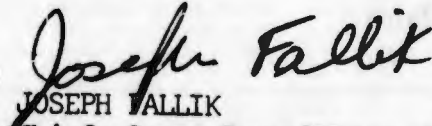
This Final report was prepared under System 760B, Project 6512, Task 651201.

Messrs. Robert W. Cracknell, Dean Merchant, and Donald Zulch (EMASI) were the Rome Air Development Center project engineers.

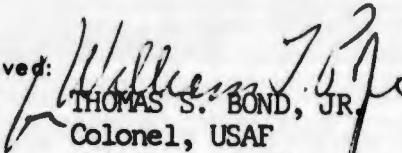
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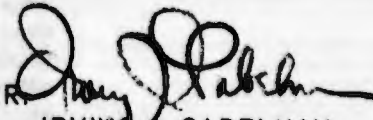
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ABSTRACT

This report describes the location and position of the RADC Photogrammetric Range used to calibrate the accuracy of ground based radars under test at Rome Air Development Center. The range was designed to evaluate a particular radar; however, it is generally applicable to a number of airborne photographic applications.

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TABLE OF CONTENTS

Section		Page
I	INTRODUCTION	1
II	DESCRIPTION OF THE ASFIR AND EVALUATION SYSTEMS	3
III	ACCURACY REQUIREMENTS	5
IV	ESTIMATED ACCURACY OF THE EVALUATION SYSTEM	7
V	RADAR EVALUATION RANGE	13
	1. Subrange Locations	13
	2. Survey Accuracy	14
	3. Horizontal Control Surveys	14
	4. Vertical Control Surveys	28
	5. Monuments	29
	6. Target and Station Designations	29
	7. Target Descriptions	29
	REFERENCES	31
	APPENDIX I. ASFIR SUBRANGE GEODETIC DATA	33
	APPENDIX II. CLASSIFICATION AND STANDARDS OF ACCURACY	281

LIST OF ILLUSTRATIONS

<u>Figure</u>	<u>Title</u>	<u>Page</u>
1	RADC Photogrammetric Range Configuration	4
2	Typical ASFIR Base and Control Zone Relationships.	9
3	Massena, Subrange #1.	16
	a. Target Distribution	
	b. Target Overlay	
	c. Area Topographic Map	
4	Bridport, Subrange #2.	18
	a. Target Distribution	
	b. Target Overlay	
	c. Area Topographic Map	
5	Middletown, Subrange #4.	20
	a. Target Distribution	
	b. Target Overlay	
	c. Area Topographic Map	
6	Sunbury, Subrange #5	22
	a. Target Distribution	
	b. Target Overlay	
	c. Area Topographic Map	
7	Hornell, Subrange #6	24
	a. Target Distribution	
	b. Target Overlay	
	c. Area Topographic Map	
8	Brockport, Subrange #7.	26
	a. Target Distribution	
	b. Target Overlay	
	c. Area Topographic Map	

LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page</u>
I	ASFIR Bias Errors	5
II	Estimated Combined Standard Errors	11
III	Subrange Coordinates	15

SECTION I

INTRODUCTION

During 1963 geodetic requirements were established to provide a satisfactory method for evaluating the performance and accuracy of an experimental system referred to as Active Swept Frequency Interferometer Radar (ASFIR) which is under development at Rome Air Development Center.

The question of accuracy and reliability became one of the most critical problems associated with the development, performance, and evaluation of this ground based radar system. A conceptual approach for solving this problem with an airborne radar evaluation system employing analytical photogrammetry techniques was selected as the most economical approach.¹

This system was devised to accommodate both monostatic and bistatic radars having long bursts of transmitted energy, 1000 microseconds, and a need for accurate target location (10 feet in range and .1 milliradian in angle). In addition, it was desired to have available target attitude for those situations where the radar was tracking non-cooperative targets, i. e. aircraft without beacons.

Secondary considerations of mobility, cost, and the availability of high-altitude aircraft and camera techniques re-enforced the decision to apply photogrammetric principles to this problem. In brief, the technique uses an aerial camera, situated in the aircraft tracked by the radar, to photograph known ground locations. The time of photographic exposure is synchronized with the radar. The photographs contain a sufficient number of ground control data points to permit accurate location of the aircraft within the region containing the ground control. The method of reducing the photographic data and transferring this data into the radar coordinates follows familiar analytical photogrammetric resection methods.² The photogrammetric evaluation system is currently undergoing testing and is being used to evaluate ASFIR. The location and orientation of the ground control with respect to the radar is critical to the success of the evaluation of the radar. It is the purpose of this report to describe in detail by cartography and written description the elements of the ground control used to evaluate ASFIR.

The photographic control ranges are believed to be unique in that they provide the only ranges containing controlled targets designed to assure direct photo identification at altitudes of at least eighty thousand feet. This assumes good quality photography taken by a conventional precision camera of nominal six-inch focal length. The horizontal coordinates of the individual ground points were established, using essentially Class III first order and second order methods, (Reference Appendix II). The decisions regarding the design of the survey and the density of the control points were made to satisfy the accuracy requirements of the evaluation system.

A description of the ASFIR base lines is also included.

SECTION II

DESCRIPTION OF THE ASFIR AND EVALUATION SYSTEMS

The ASFIR system is a multistatic short base line radar designed for high precision tracking and location of space targets at slant ranges up to 1000 nautical miles. The unique measurable parameters of the system include range, azimuth, elevation, and rates of each, which add complexity to its performance evaluation. While specific application of the radar is directed toward outer atmospheric space targets, a less expensive standard is provided for the initial calibration and evaluation. A high altitude aircraft target independently positioned in space by a photogrammetric resection technique and time-correlated with the radar is sufficient for this purpose. Subsequent evaluation under near operational conditions may eventually justify the requirement for a more realistic "artificial satellite" target.

The photogrammetric space resection technique employs a precision aerial camera (modified KC-1) in the target aircraft. This type of photogrammetric procedure meets all of the established criteria and provides sufficient test data for the evaluation. The resulting space resection computations provide sufficient target information for the system requirements. The development of the photographic method has involved the establishment of geodetic control on photo-identifiable ground control points, existing features or manmade targets, within six widely separated geodetic control areas. These control areas are shown in Figure 1. Each control area is mathematically related to the ASFIR system through a common space coordinate system. As the target aircraft is tracked by ASFIR over the control areas, simultaneous data is obtained by the aerial camera in the target aircraft, photographing the ground control stations in any given control area. Real time correlation is obtained between the ASFIR system and the target aircraft at the instant of photographic exposure. A photogrammetric space resection computation determines the three-dimensional coordinates (X, Y, Z) of the camera station with respect to the geodetic ground control appearing as identifiable photo images. As a by-product of this technique, the angular orientation of the camera with respect to the axes of the local coordinate system is also computed. Since the ASFIR radar is located within a common space cartesian coordinate system with the control areas, instantaneous range and azimuth values are readily computed for comparison with the radar data.

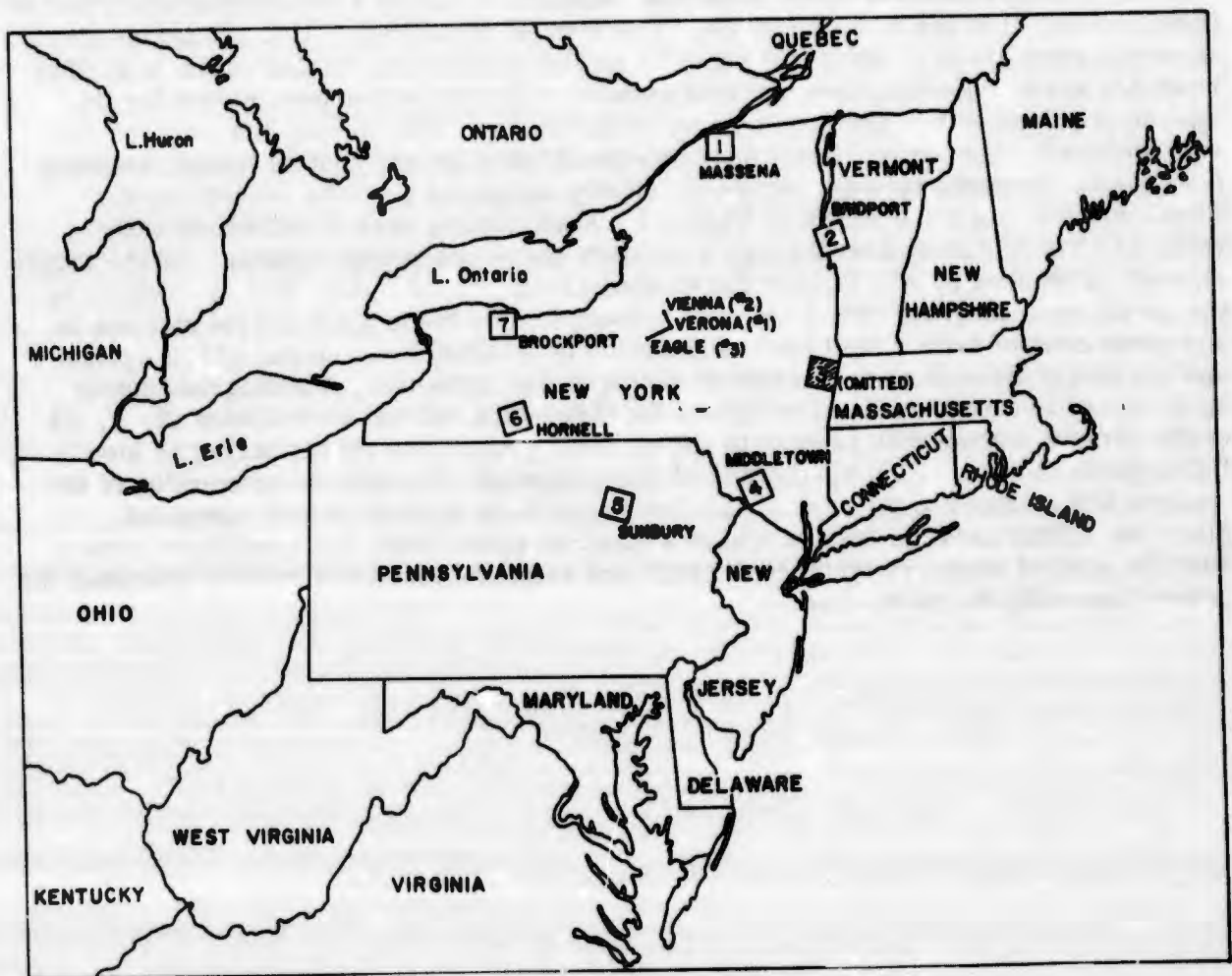


Figure 1. RADC Photogrammetric Range Configuration

SECTION III
ACCURACY REQUIREMENTS

The marriage of the ASFIR and the airborne evaluation technique developments permitted the camera development and ancillary surveys to follow useful design objectives. ASFIR is a trilateration measurement instrument with range and range difference as the principal measured quantity. The evaluation system provides a standard against which the ASFIR accuracy is determined. In particular, the overall radar bias error will be determined. The following is a tabulation of the estimates of the principal bias errors expected.

TABLE I
ASFIR BIAS ERRORS

	<u>Range</u>	<u>(feet)</u>
Electronic Equipment Time Delay	.5	
Frequency Stability	.04	
Refraction - 5° elevation angle	1.5	(corrected)
Refraction - 3° elevation angle	6.0	(corrected)
Propagation Velocity	1.3	

The time delay of the electronic equipment has been verified by static measurement. The numbers quoted include expected degradation during the test period. The frequency stability of concern is the short-term stability and this was taken to be one part in 10^{-10} for a three-hour period. The aircraft tracks will be at slant ranges up to 160 nautical miles and at altitudes of 45,000 feet with elevation angles from 3° to 5°. Uncorrected error in range due to refraction is 300 feet at 3° elevation angle and 75 feet for 5° elevation angle. Correction using standard atmospheric sampling and processing procedures will reduce these values to those listed. The error due to the uncertainty in propagation constant is for the maximum aircraft tracking range of 160 nautical miles.

SECTION IV

ESTIMATED ACCURACY OF THE EVALUATION SYSTEM

The foregoing section described the estimated accuracy performance characteristics of the ASFIR system. The present section will proceed to analyze the evaluation system for the purpose of estimating its accuracy when operating in connection with ASFIR.

Recent improvements in camera calibration procedures³ and new information regarding the quality of the first order primary triangulation system in the eastern United States⁴ provide the basis for an evaluation of the accuracies to be expected from the photogrammetric resection technique as it is currently employed for calibration and evaluation of the ASFIR system at RADC.

In recent conversations with Mr. Lansing Simmons, Chief Mathematician of the USC&GS, it was learned that a new analysis of closure errors in the primary control system of the United States indicates that primary control is superior to that indicated by earlier analysis and as published in 1950 in the Coast Survey Journal.⁴ The original analysis based on closure errors of twenty-five triangulation loops in eastern U. S. indicated a one-sigma proportional error of 1:193,000. Subsequent analysis by Mr. Simmons finds this to be a two-sigma error or a proportional standard error of 1:386,000.

The control surveys performed by the 1381st Geodetic Survey Squadron (APCS) were designed not to exceed an error of one foot from the primary control. Subsequent checks of results indicate their surveys to be superior to this value. A conservative estimate of control point error with respect to the primary control is ± 0.33 foot (standard error). Since these are fixed but independent errors, they may be combined with the geodetic bias error as the root sum of their respective squares.

In an earlier report,¹ the expected spatial coordinate accuracy based on an estimated standard error of one observation of a photo coordinate of ± 10 microns was taken as ± 1 foot/10,000 feet of altitude above the mean terrain. With the refined photographic system calibration anticipated for use in connection with the ASFIR program, the expected photo coordinate measurement errors may be reasonably reduced to ± 5 microns standard error. Accordingly, the estimated errors of the photogrammetric resection step are reduced to ± 1 foot/20,000 feet of altitude of the target aircraft above the mean terrain.

The important result of interest here is the combined influence of the newly estimated values of geodetic and photogrammetric errors on the error values of range and azimuth from the ASFIR master station to the target aircraft.

The two geodetic errors may be combined by taking the square root of the sum of their squares resulting in a fixed or bias error in range.

Assuming the range as 6×10^5 feet (approximately 100 miles), the range error due to the primary control error is:

$$\Delta R_p = (3.86 \times 10^{-5})(6 \times 10^5) = \pm 1.55 \text{ feet}$$

The local control survey contributes ± 0.33 feet. The resultant estimated standard error in range due to geodetic factors becomes approximately equal to ± 1.6 feet standard error. The error in azimuth due to the total geodetic bias error will be the subtended angle (error vector/range). The azimuth standard error is then approximately equal to ± 0.53 arc seconds. It is noted that at a time the range error is a maximum (± 1.6 feet) the azimuth error is a minimum (0 arc seconds) due to the fixed relationship of the geodetic error vector with respect to the spatial rectangular system of control.

The photogrammetric resection error contribution is assumed to be random provided the improved camera calibration data are available. This is taken as ± 1 foot per 20,000 feet altitude of the target aircraft above the mean terrain. Since rectangular components are not considered correlated, the estimated variance-covariance matrices in units of feet squared for altitudes of 40, 60, and 80 thousand feet are:

$$\Sigma_4 = \begin{bmatrix} 4 & 0 & 0 \\ 0 & 4 & 0 \\ 0 & 0 & 4 \end{bmatrix} \quad \Sigma_6 = \begin{bmatrix} 9 & 0 & 0 \\ 0 & 9 & 0 \\ 0 & 0 & 9 \end{bmatrix} \quad \Sigma_8 = \begin{bmatrix} 16 & 0 & 0 \\ 0 & 16 & 0 \\ 0 & 0 & 16 \end{bmatrix}$$

These errors may be propagated into their influences on the range and azimuth provided the functions relating the coordinates of the aircraft to range and azimuth are known. That is:

$$\Sigma_{R\theta} = \begin{bmatrix} \sigma_R^2 & \sigma_{R\theta} \\ \sigma_{R\theta} & \sigma_\theta^2 \end{bmatrix}$$

from:

$$\Sigma_{R\theta} = G^T \Sigma G$$

where:

$$\Sigma = \begin{bmatrix} \sigma_{x_0}^2 & 0 & 0 \\ 0 & \sigma_{y_0}^2 & 0 \\ 0 & 0 & \sigma_{z_0}^2 \end{bmatrix}$$

$$G = \begin{bmatrix} \partial R / \partial X_0 & \partial \theta / \partial X_0 \\ \partial R / \partial Y_0 & \partial \theta / \partial Y_0 \\ \partial R / \partial Z_0 & \partial \theta / \partial Z_0 \end{bmatrix}$$

G^T = the transpose of G.

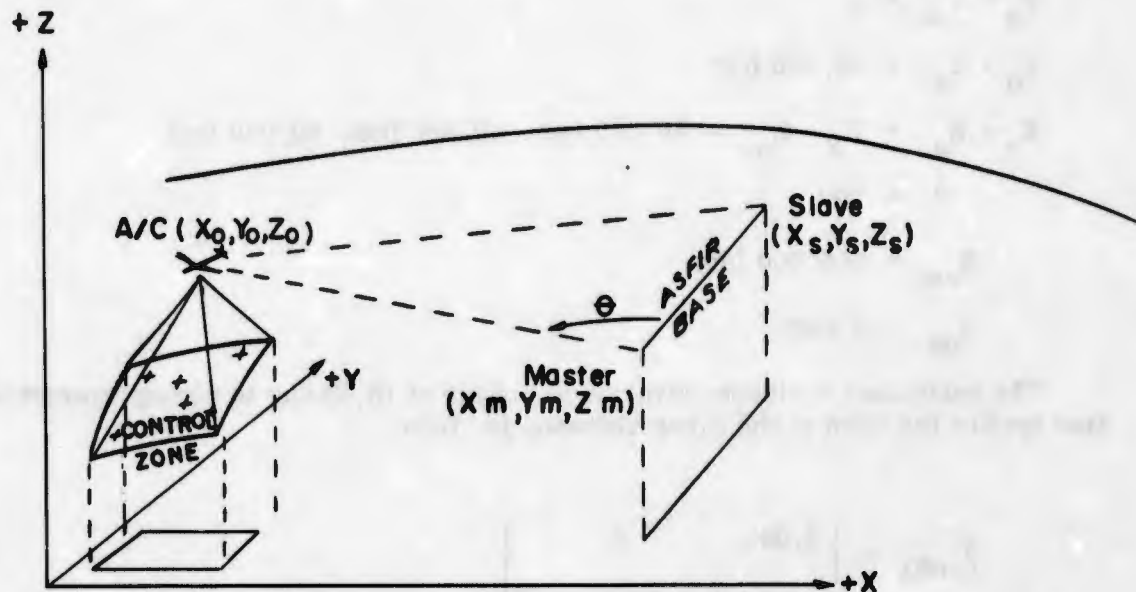


Figure 2. Typical ASFIR Base and Control Zone Relationships

With reference to Figure 2, the necessary functional relationships between range and azimuth are:

$$R_{om} = \left[(X_o - X_m)^2 + (Y_o - Y_m)^2 + (Z_o - Z_m)^2 \right]^{1/2}$$

$$\theta = \cos^{-1} \left[\frac{(X_o - X_m)(X_m - X_s)}{R_{om} \cdot R_{ms}} + \frac{(Y_o - Y_m)(Y_m - Y_s)}{R_{om} \cdot R_{ms}} + \frac{(Z_o - Z_m)(Z_m - Z_s)}{R_{om} \cdot R_{ms}} \right]$$

After taking the partial derivatives of R_{om} and θ with respect to X_o , Y_o , Z_o , and after some simplifying assumptions, the evaluated G-matrix for three altitudes becomes:

40,000 feet (G_4)	60,000 feet (G_6)	80,000 feet (G_8)
$\begin{bmatrix} 1.000 & 0 \\ 0 & -0.167 \times 10^{-5} \\ 0.067 & 0 \end{bmatrix}$	$\begin{bmatrix} 1.000 & 0 \\ 0 & -0.167 \times 10^{-5} \\ 0.100 & 0 \end{bmatrix}$	$\begin{bmatrix} 1.000 & 0 \\ 0 & -0.167 \times 10^{-5} \\ 0.266 & 0 \end{bmatrix}$

With reference to Figure 2, the assumptions are:

$$X_o - X_m = 600,000 \text{ feet (approx. 100 miles)}$$

$$X_s - X_m = 0$$

$$Y_o - Y_m = 0$$

$$Y_o - Y_s = 36,000 \text{ feet}$$

$$Z_o - Z_s = Z_o - Z_m = 40,000 \text{ feet, } 60,000 \text{ feet, } 80,000 \text{ feet}$$

$$\theta = 90^\circ$$

$$R_{om} = 600,000 \text{ feet}$$

$$R_{os} = 0 \text{ feet}$$

The estimated variance-covariance matrix of (R, θ) due to photogrammetric resection errors for each of the three altitudes is, then:

$$\Sigma_{R\theta 4} = \begin{bmatrix} 4.045 & 0 \\ 0 & 0.112 \times 10^{-10} \end{bmatrix}$$

$$\Sigma_{R\theta 6} = \begin{bmatrix} 9.09 & 0 \\ 0 & 0.251 \times 10^{-10} \end{bmatrix}$$

$$\Sigma_{R\theta 8} = \begin{bmatrix} 17.132 & 0 \\ 0 & 0.446 \times 10^{-10} \end{bmatrix}$$

Extracting the significant results for both the geodetic and photogrammetric errors, the following table results.

TABLE II
ESTIMATED COMBINED STANDARD ERRORS

(Range of 100 miles)

Altitude feet	(systematic) Maximum Geodetic		(random) Photogrammetric	
	R feet	θ sec	R \pm feet	θ \pm sec
40,000	1.6	0.53	2.0	0.67
60,000	1.6	0.53	3.0	1.00
80,000	1.6	0.53	4.1	1.34

Where: R is range, master to target aircraft

θ is space angle (approx. azimuth) between ASFIR base and the direction to the target.

Comparison with TABLE I indicates the combined standard error of the evaluation system is more accurate than the radar measurement by a factor of about 3 at aircraft altitudes of 40,000 feet.

SECTION V

RADAR EVALUATION RANGE

1. Subrange Locations

The ASFIR Evaluation Range consists of a master range and six subranges or control areas. The master range consists of the Master ASFIR tracking station located at the north end of the RADC Verona Test Annex, Verona, N. Y.

Latitude: $43^{\circ}09'09''.6039$

Longitude: $75^{\circ}37'02''.9163$

and the remote or slave tracking station located near Vienna, New York:

Latitude: $43^{\circ}14'48''.8358$

Longitude: $75^{\circ}40'47''.9134$ (C&GS 1st order position)

These two stations are approximately 7.25 miles apart. The geodetic positions have been reduced to the pivot points of the antennas.

A second slave station located on Eagle Hill -

Latitude: $43^{\circ}01'25''.634$

Longitude: $75^{\circ}55'10''.945$ (C&GS 1st order position)

will be in operation by 1966. This station is approximately 18 miles west of and normal to the Verona-Vienna base line. The six subranges or control areas, each approximately 20 miles square, are located within a 150-mile radius of this Master range (see Figure 1). Figures 3 through 8 indicate the corner coordinates of each subrange, its referenced name, and target location and distribution. Table III lists the corner coordinates of each subrange.

The selection of the locations of the individual control zones was based on characteristics of the ASFIR system. The locations of the control zones were bounded, by the maximum altitude that could reasonably be expected for the target aircraft, and controlled by the minimum elevation angles as seen from the ASFIR Master (Verona). It is desirable to operate at the largest elevation angle possible to reduce refraction errors. The controlling factor on the control zone location was the pulse width of the ASFIR transmission. The shortest transmitted pulse width, 900 microseconds, is approximately equivalent in ray path length of 90 nautical miles. The minimum acceptable control zone radius was, therefore, established at the distance. The normal transmitted pulse is 2400 microseconds, which in turn is approximately equivalent in ray path length to 240 nautical miles; however, at this distance the curvature effect is approximately 44,000 feet, therefore the take-off angle for a flight altitude of 45,000 feet would be 25 minutes taken from the Master station to the target. The location of the

control zone in azimuth was made in consideration of the geometric strength of the ASFIR solution. Best accuracies were expected along extensions of the normal to the ASFIR base. Accordingly, two control ranges (Hornell Subrange No. 6 and Brockport Subrange No. 7) were established along the normal at an approximate radius of 100 miles. The remaining ranges were established to evaluate the ASFIR system performance under varying geometry. Appendix I contains a summary of geodetic data on all the subranges.

2. Survey Accuracy

A number of geodetic survey procedures including USC&GS First Order Class III triangulation (Reference Appendix II) were used to assure the horizontal location of photoidentifiable points within each subrange would be known to within a standard error of ± 1 foot with respect to the nearest basic geodetic control. Only USC&GS First and Second Order triangulation on traverse stations were used as basic horizontal control. Traverses closed on the same primary control point to assure an appropriate azimuth check on closure. Final geodetic positions were computed with reference to the basic U. S. Coast and Geodetic Survey triangulation stations, in or adjacent to the areas, and referred to the "1927 North American Datum." The horizontal positions are expressed in Latitude and Longitude on the Clark 1866 Datum; and on the respective state plane coordinate system.

It is estimated that the relative positional accuracies of the subranges with respect to the master range is at least 1:300,000. The accuracy of the baseline between the Master and slave stations is at least 1:500,000 with azimuth accuracies estimated to be \pm one second of arc.

The six subranges in question have approximately 20 well-distributed photo control points selected to appear as photo-identifiable images on high-altitude photography. The photo control points (PCP)--total of 123--have been established with respect to first and second order geodetic control with a probable error of not to exceed ± 1 foot of relative accuracy within each subrange and a total error of 1 meter with respect to the master range.

3. Horizontal Control Surveys

Various procedures and criteria were used in establishing horizontal control in the ASFIR evaluation ranges.

Traverses closing on the same basic control point had an azimuth check consisting of a check angle between two known azimuth lines. The angle between the azimuth lines had to agree within ± 10 seconds. Astronomic azimuths were always taken to single known azimuth lines and were in agreement to within ± 10 seconds.

Eight positions were observed, in both direct and reverse positions, using a Wild T-3 Theodolite, at each traverse station. The same number of positions were also observed to each offset PCP.

TABLE III
SUBRANGE COORDINATES

Massena, New York Subrange #1

Latitude: 44° 59' 20"	Latitude: 44° 59' 20"
Longitude: 75° 07' 30"	Longitude: 74° 43' 20"
Latitude: 44° 02' 00"	Latitude: 44° 02' 00"
Longitude: 75° 07' 30"	Longitude: 74° 43' 20"

Bridport, Vermont Subrange #2

Latitude: 44° 09' 00"	Latitude: 44° 12' 40"
Longitude: 73° 29' 50"	Longitude: 73° 06' 20"
Latitude: 43° 52' 00"	Latitude: 43° 55' 30"
Longitude: 73° 25' 00"	Longitude: 73° 01' 30"

Middletown, New York Subrange #4

Latitude: 41° 24' 50"	Latitude: 41° 33' 10"
Longitude: 74° 38' 50"	Longitude: 74° 18' 30"
Latitude: 41° 27' 40"	Latitude: 41° 17' 50"
Longitude: 74° 27' 40"	Longitude: 74° 07' 30"

Sunbury, Pennsylvania Subrange #5

Latitude: 41° 14' 40"	Latitude: 41° 07' 50"
Longitude: 76° 52' 30"	Longitude: 76° 31' 10"
Latitude: 40° 58' 30"	Latitude: 40° 51' 50"
Longitude: 77° 01' 10"	Longitude: 76° 40' 00"

Hornell, New York Subrange #6

Latitude: 42° 24' 10"	Latitude: 42° 32' 50"
Longitude: 78° 14' 20"	Longitude: 77° 54' 00"
Latitude: 42° 04' 00"	Latitude: 42° 17' 40"
Longitude: 78° 02' 40"	Longitude: 77° 42' 30"

Brockport, New York Subrange #7

Latitude: 43° 22' 10"	Latitude: 43° 22' 10"
Longitude: 78° 12' 10"	Longitude: 77° 48' 30"
Latitude: 43° 04' 30"	Latitude: 43° 04' 30"
Longitude: 78° 12' 10"	Longitude: 77° 48' 30"

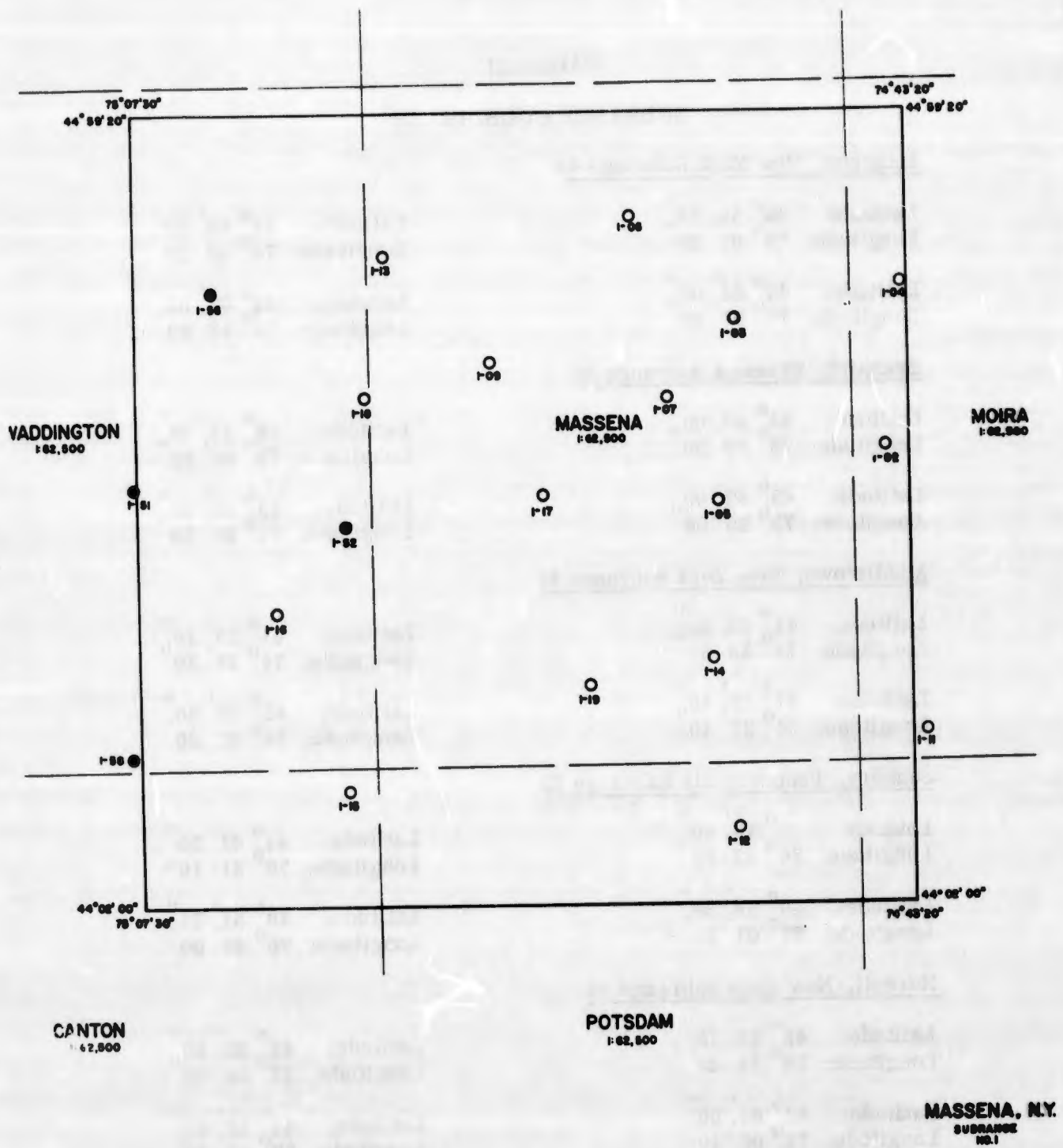


Figure 3. Massena, Subrange #1
a. Target Distribution

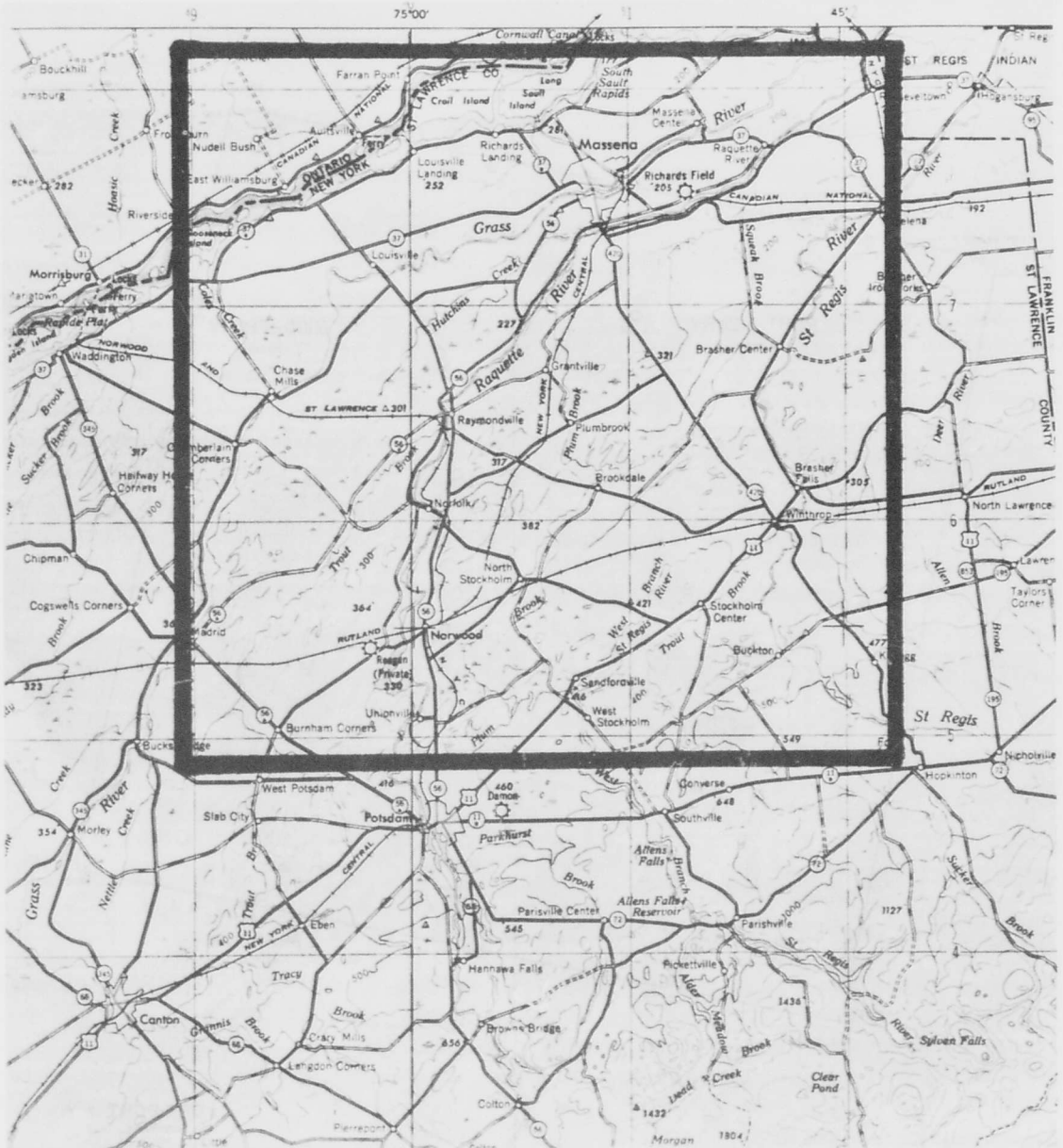


Figure 3. Massena, Subrange #1
 b. Target Overlay
 c. Area Topographic Map

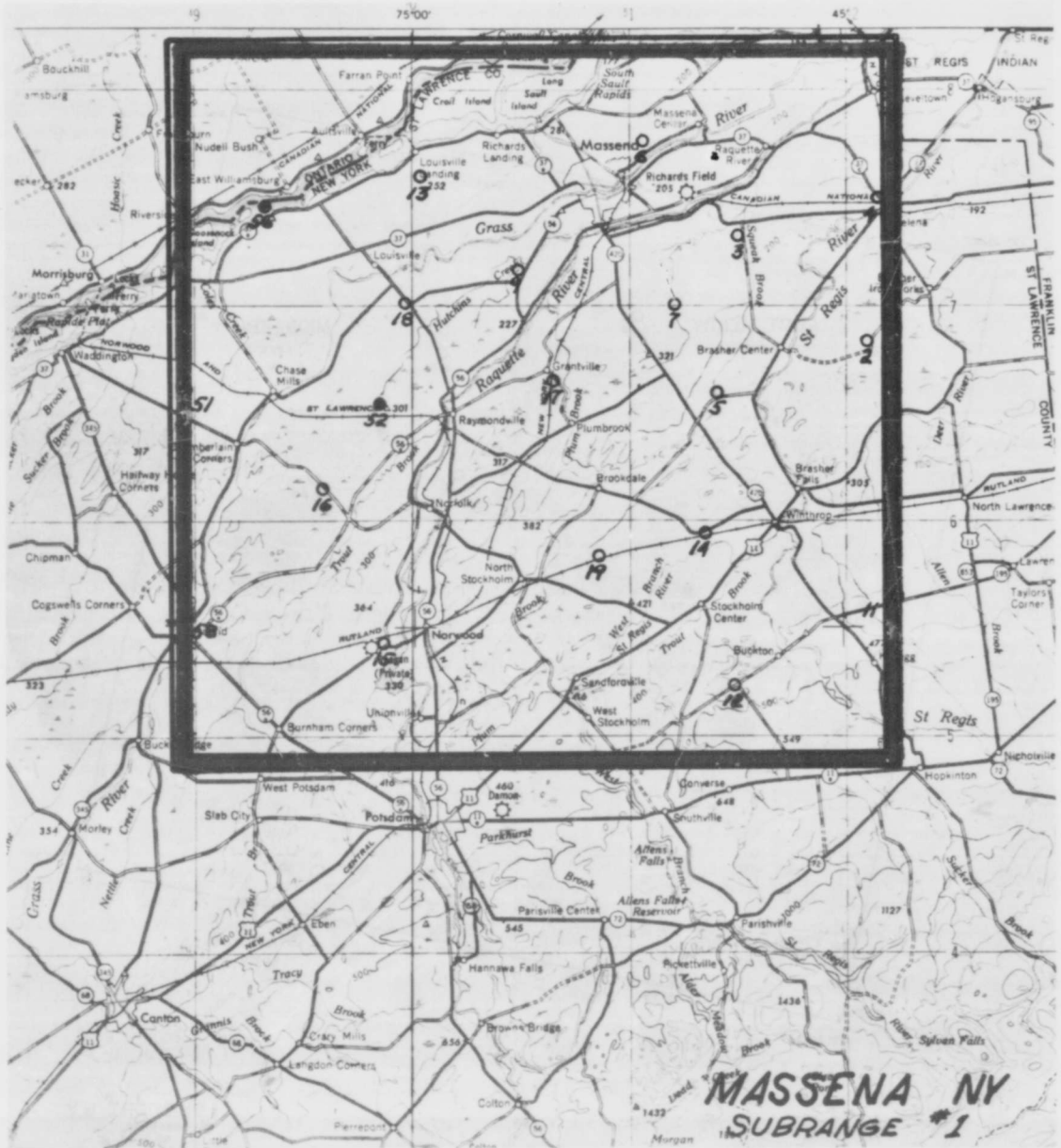


Figure 3. Massena, Subrange #1
 b. Target Overlay
 c. Area Topographic Map

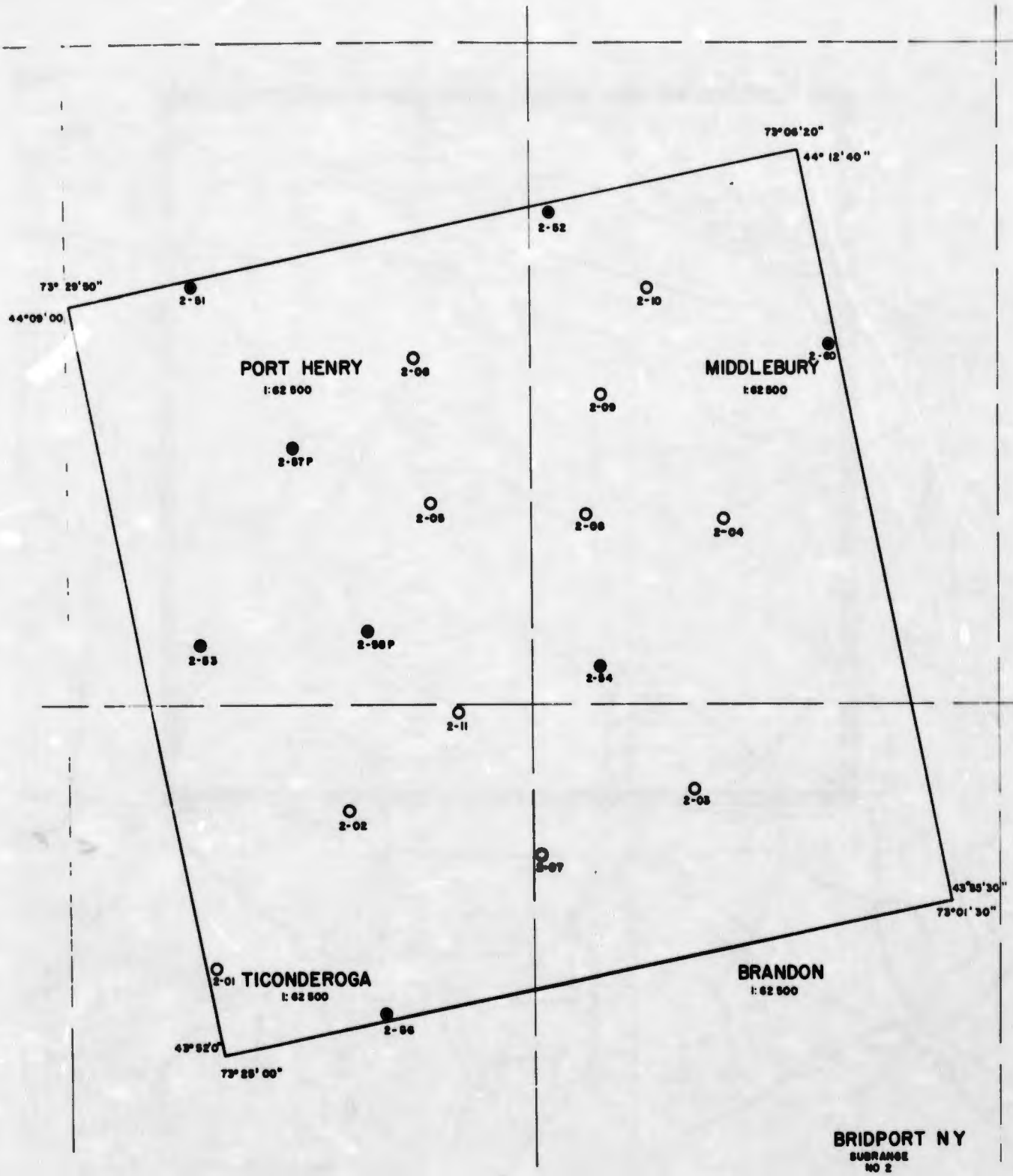


Figure 4. Bridport, Subrange #2
a. Target Distribution

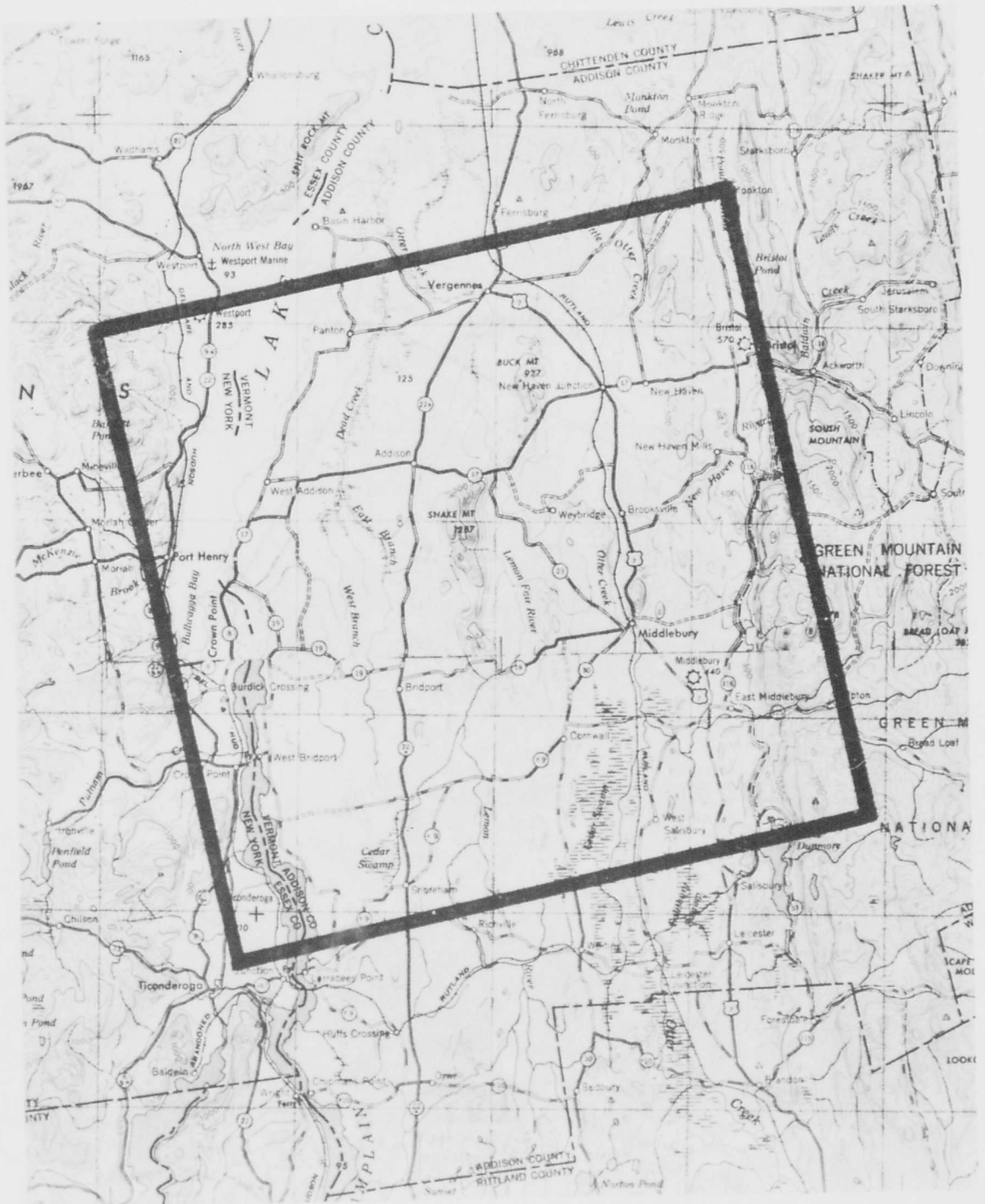


Figure 4. Bridport, Subrange #2
 b. Target Overlay
 c. Area Topographic Map

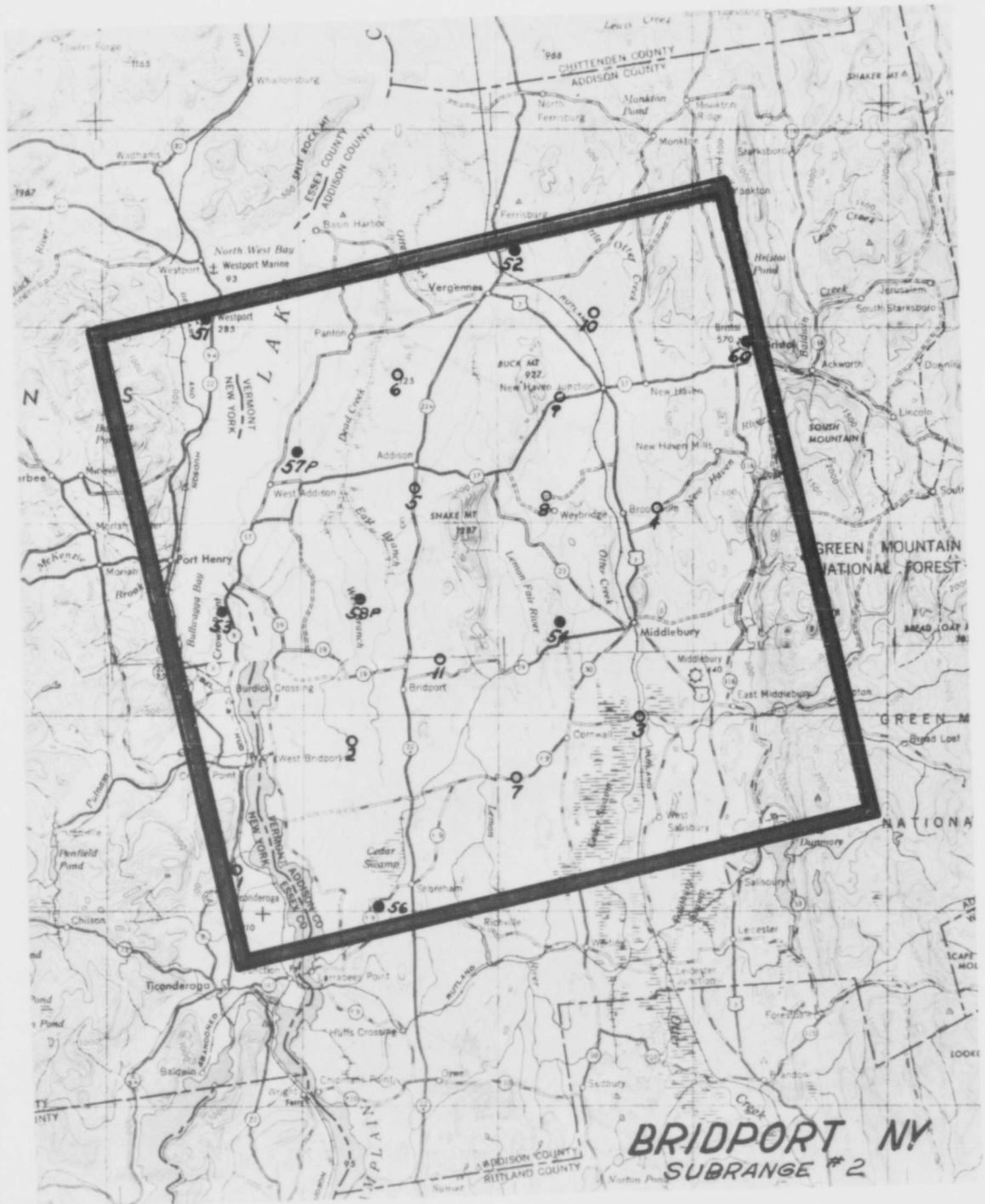


Figure 4. Bridport, Subrange #2
 b. Target Overlay
 c. Area Topographic Map

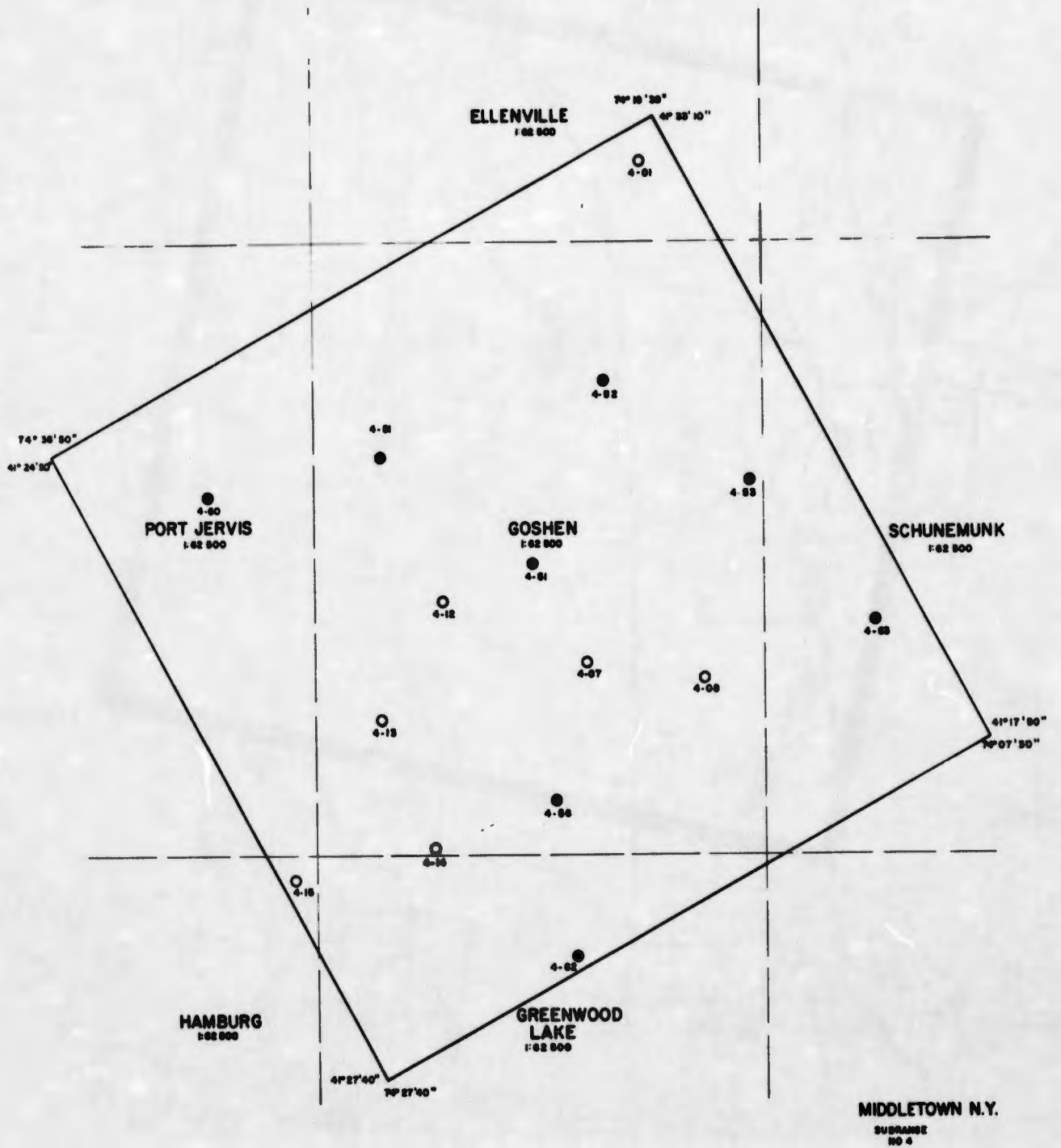


Figure 5. Middletown, Subrange #4
 a. Target Distribution

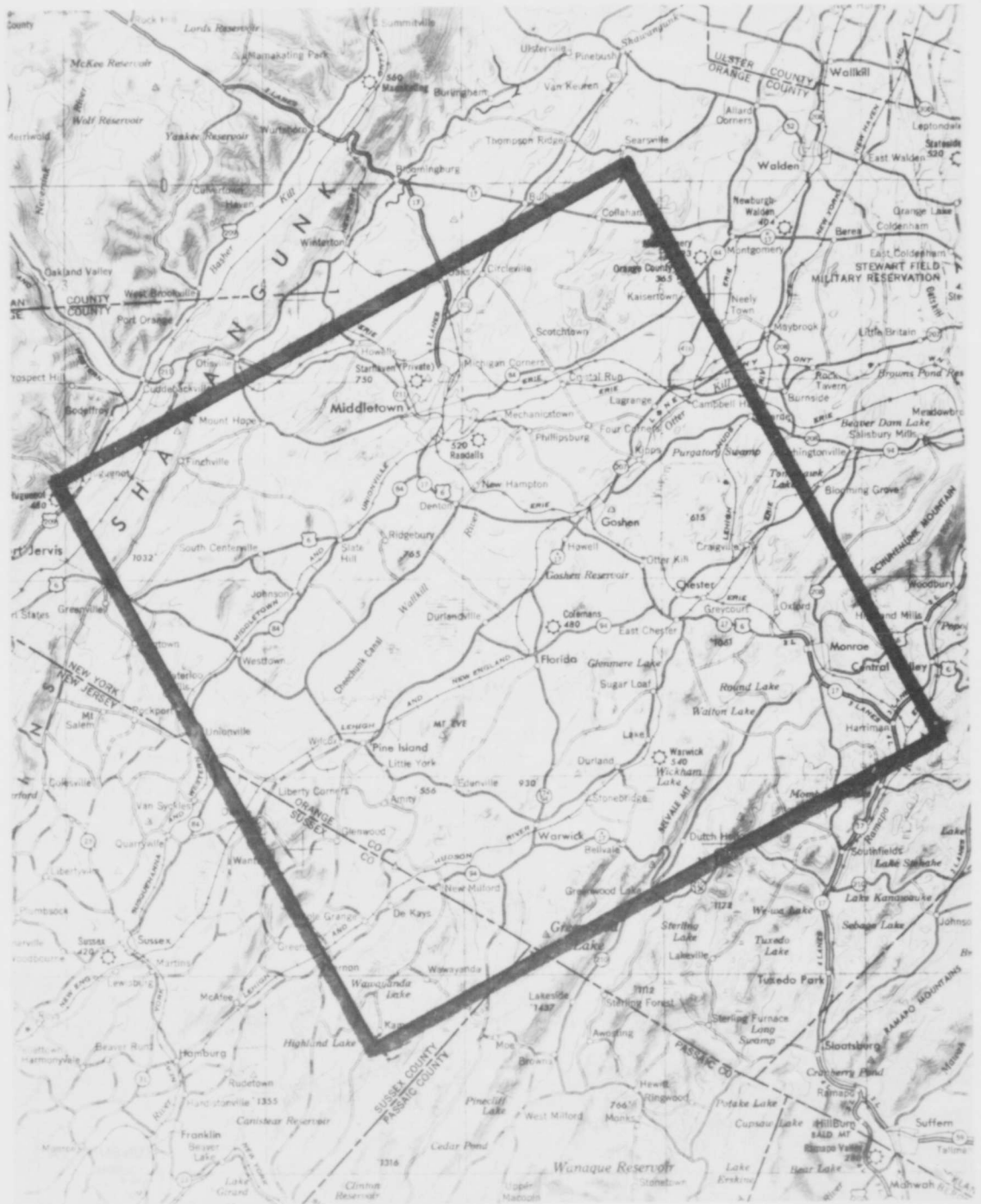


Figure 5. Middletown, Subrange #4
 b. Target Overlay
 c. Area Topographic Map

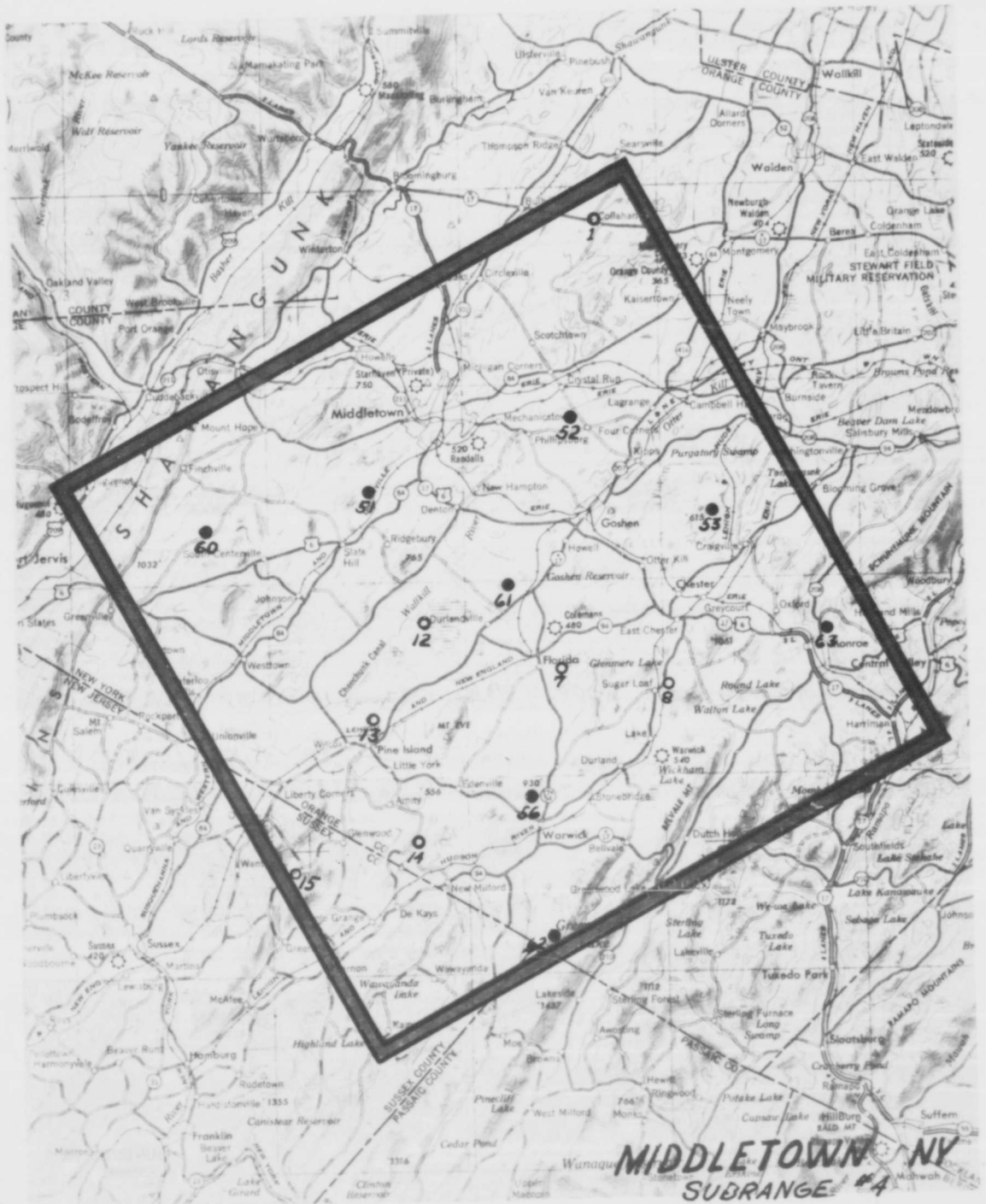


Figure 5. Middletown, Subrange #4
 b. Target Overlay
 c. Area Topographic Map

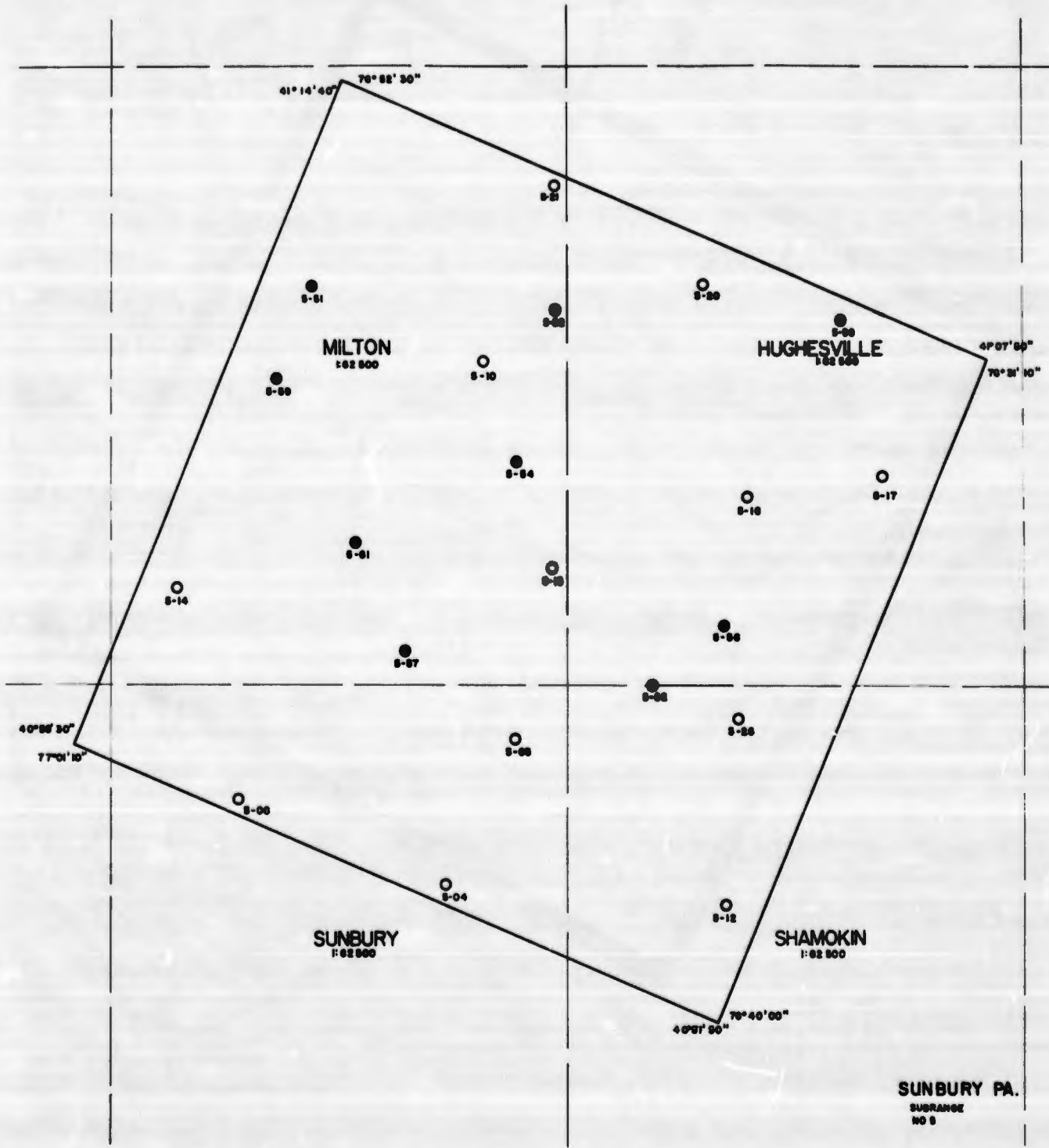


Figure 6. Sunbury, Subrange #5
 a. Target Distribution

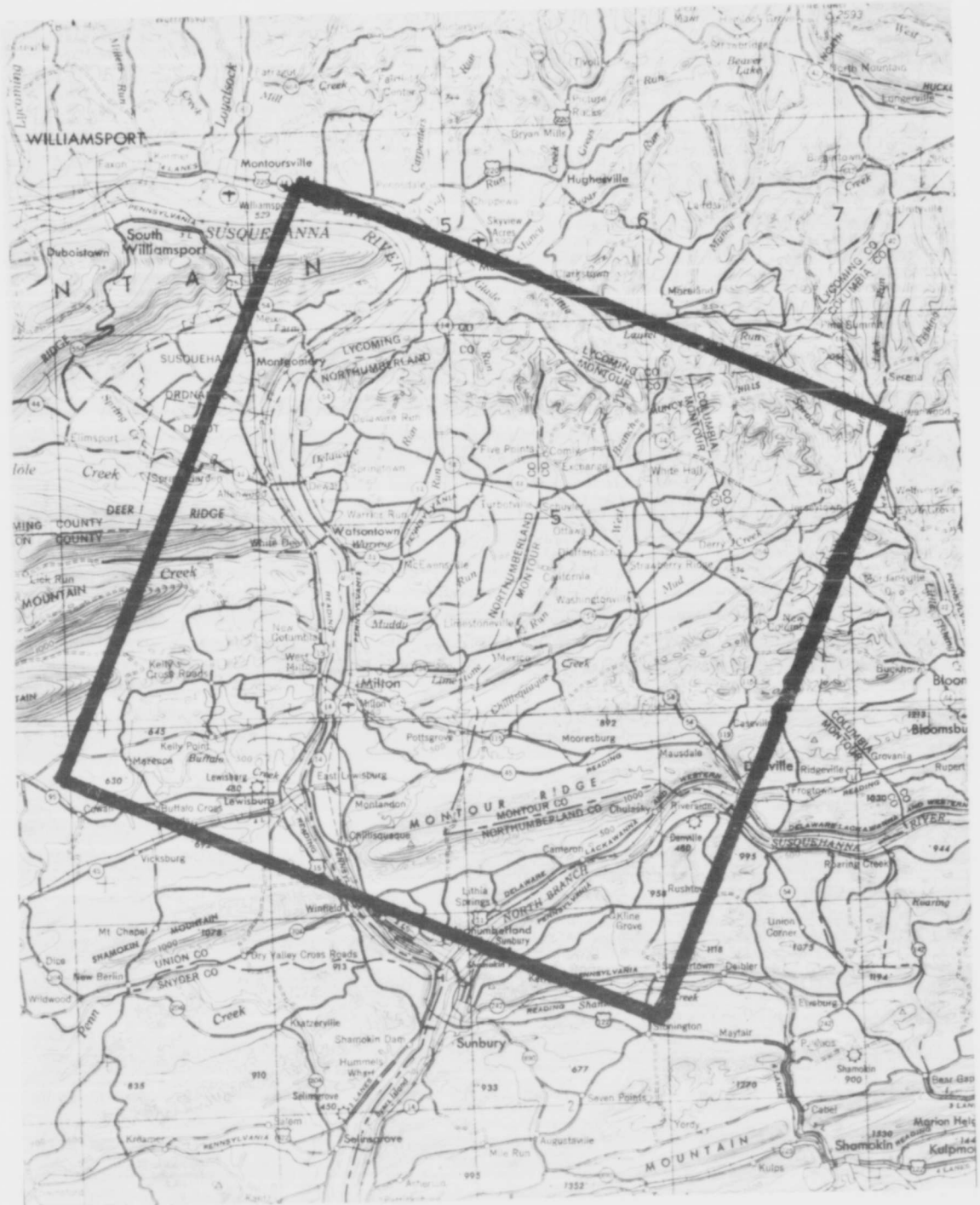


Figure 6. Sunbury, Subrange #5
 b. Target Overlay
 c. Area Topographic Map

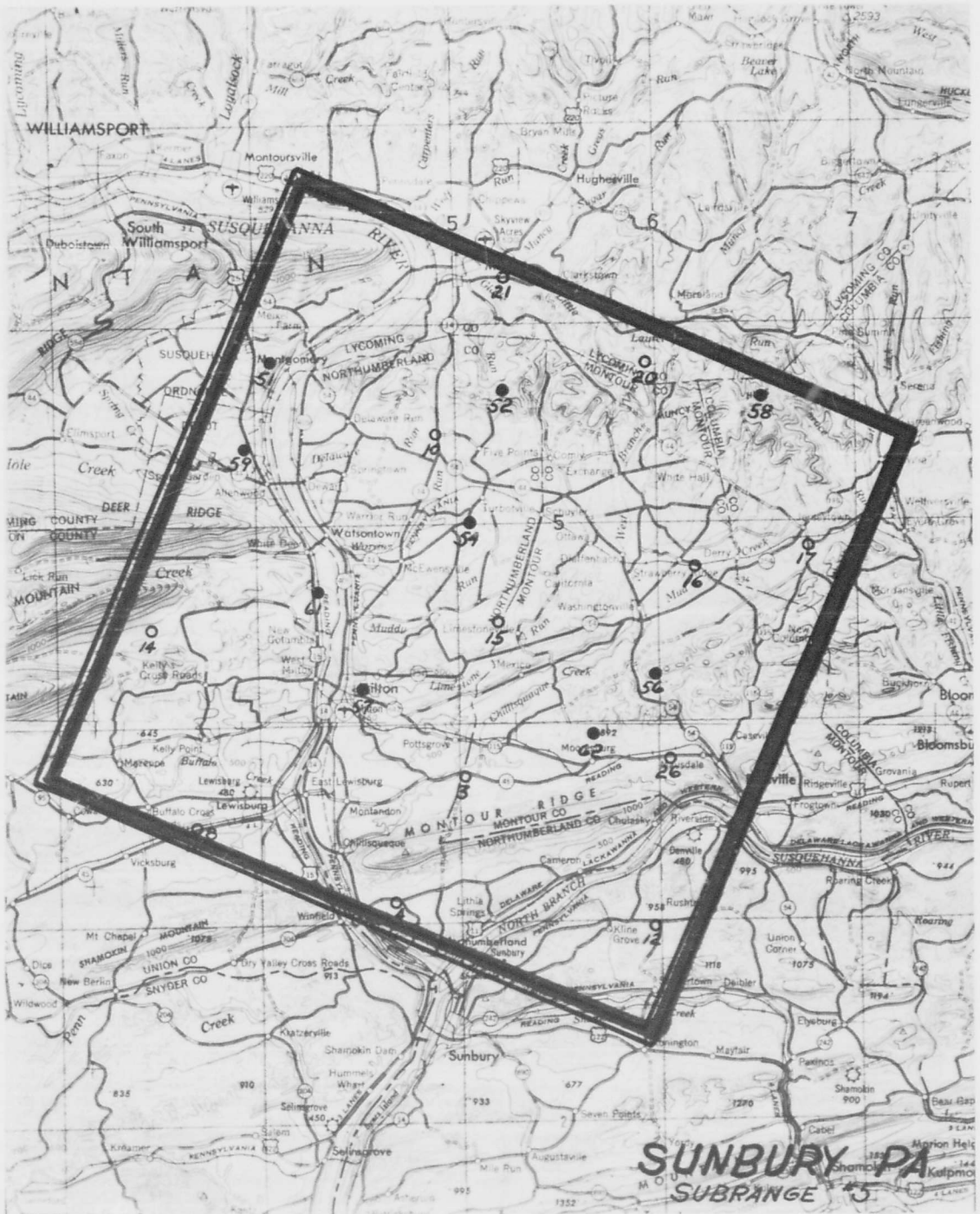


Figure 6. Sunbury, Subrange #5
 b. Target Overlay
 c. Area Topographic Map

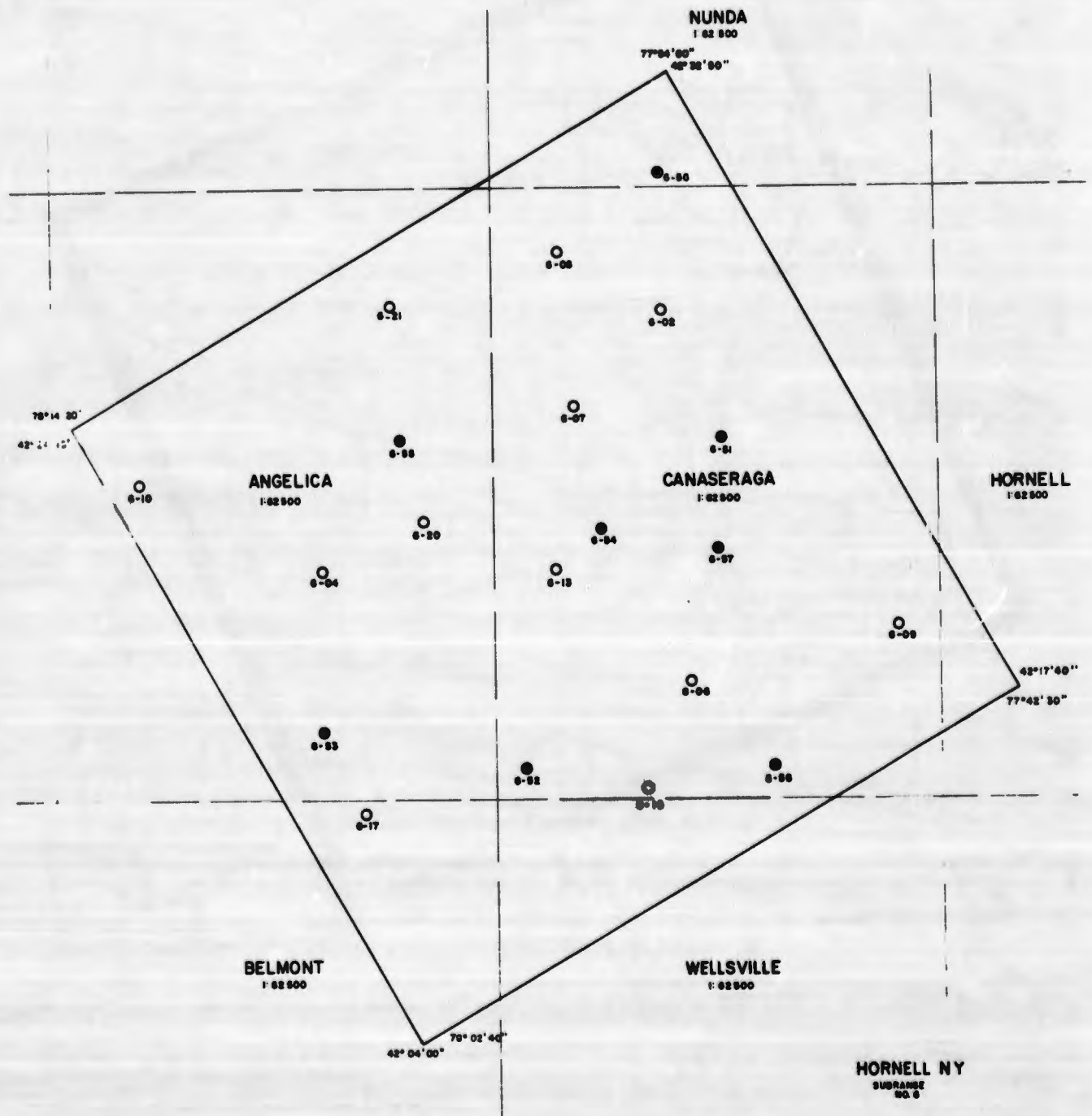


Figure 7. Hornell, Subrange #6
 a. Target Distribution

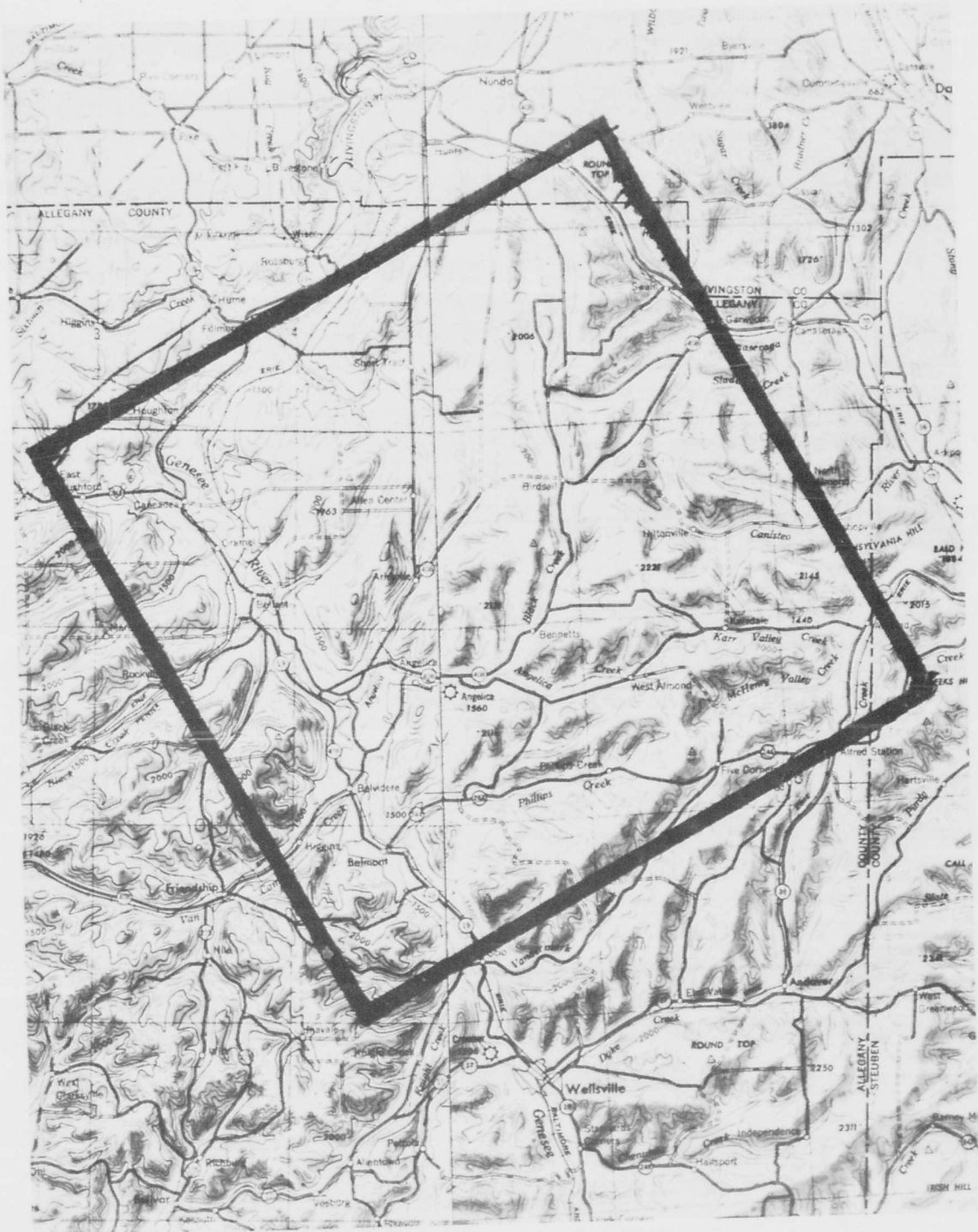


Figure 7. Hornell, Subrange #6
 b. Target Overlay
 c. Area Topographic Map

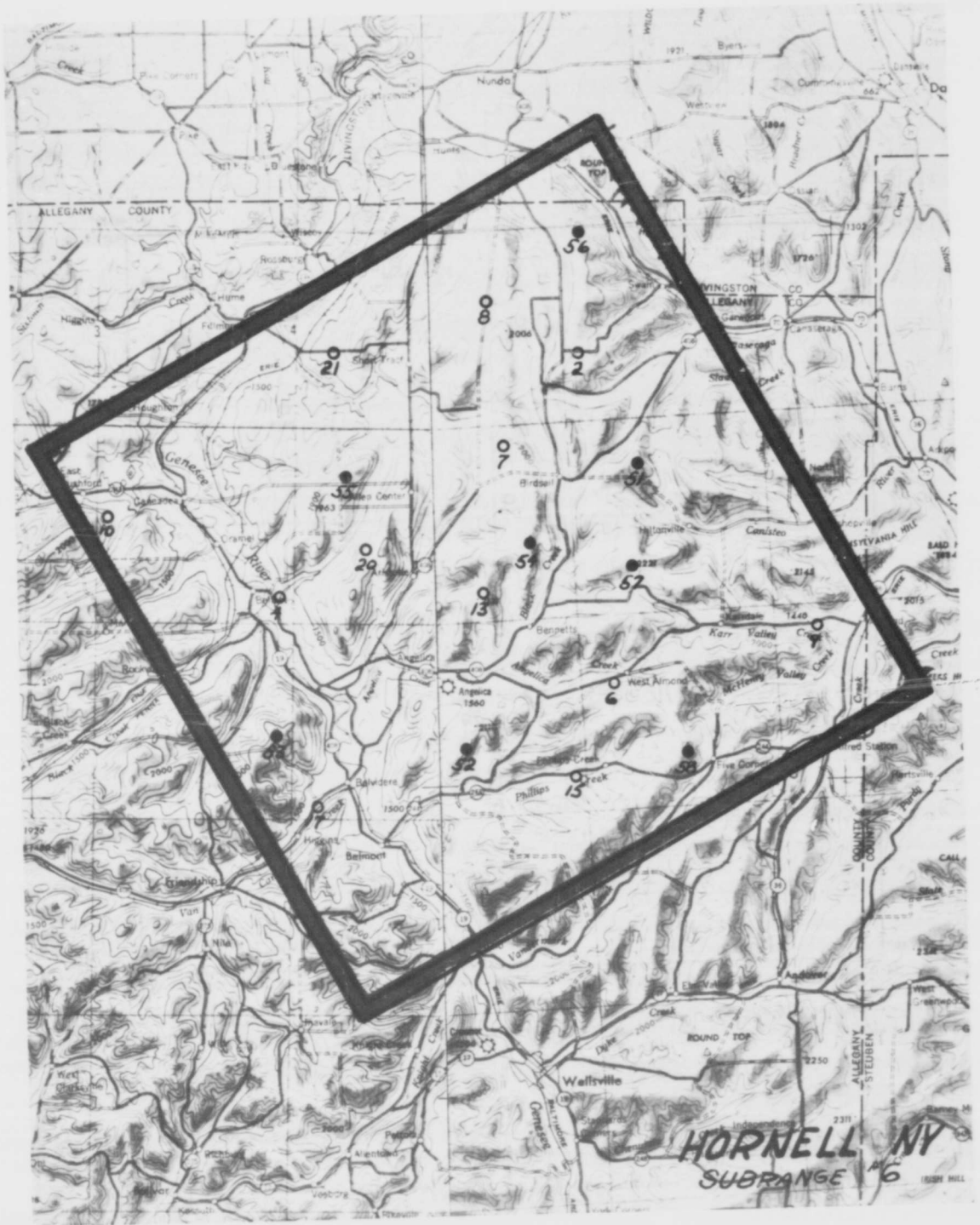


Figure 7. Hornell, Subrange #6
 b. Target Overlay
 c. Area Topographic Map

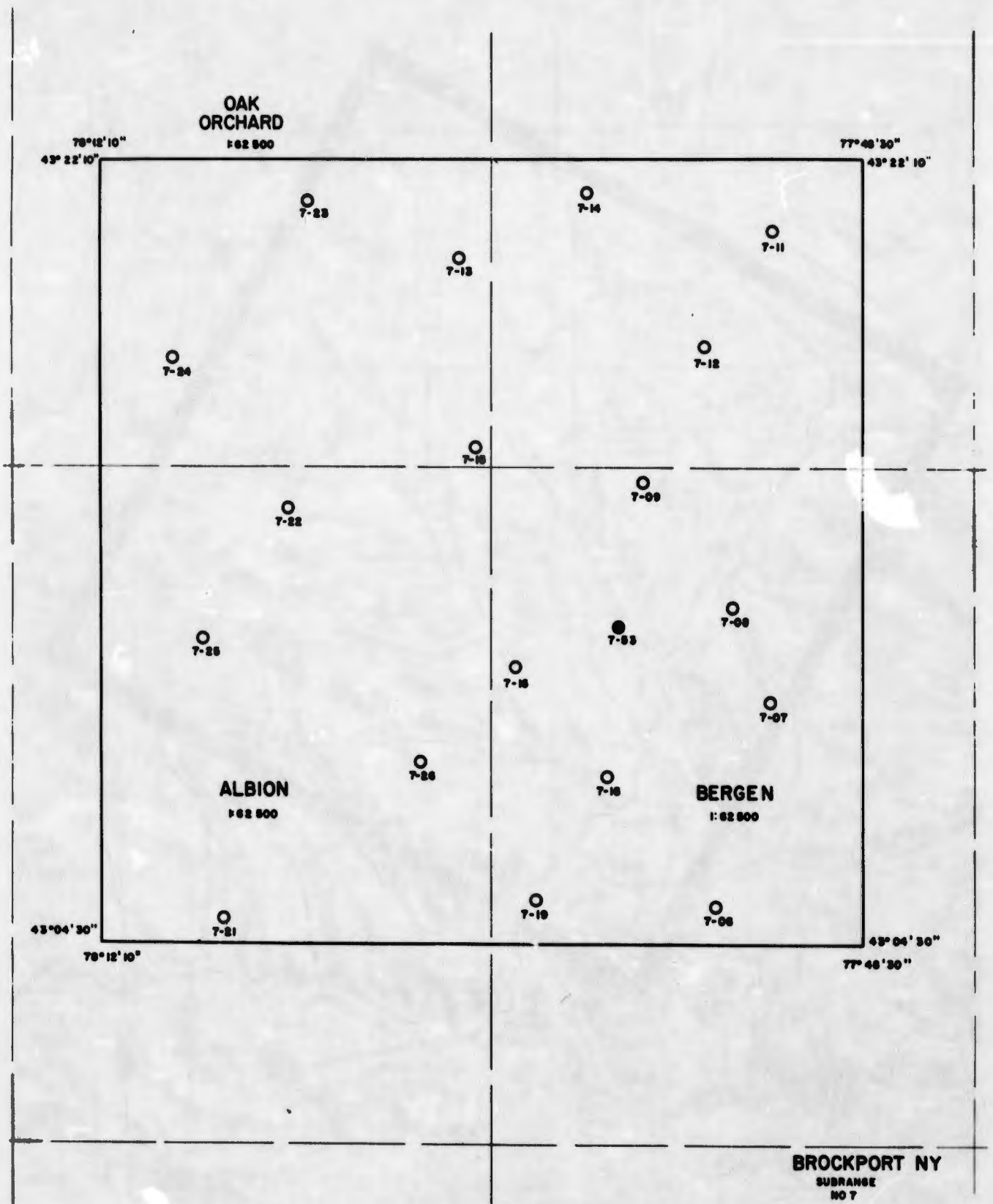


Figure 8. Brockport, Subrange #7
 a. Target Distribution

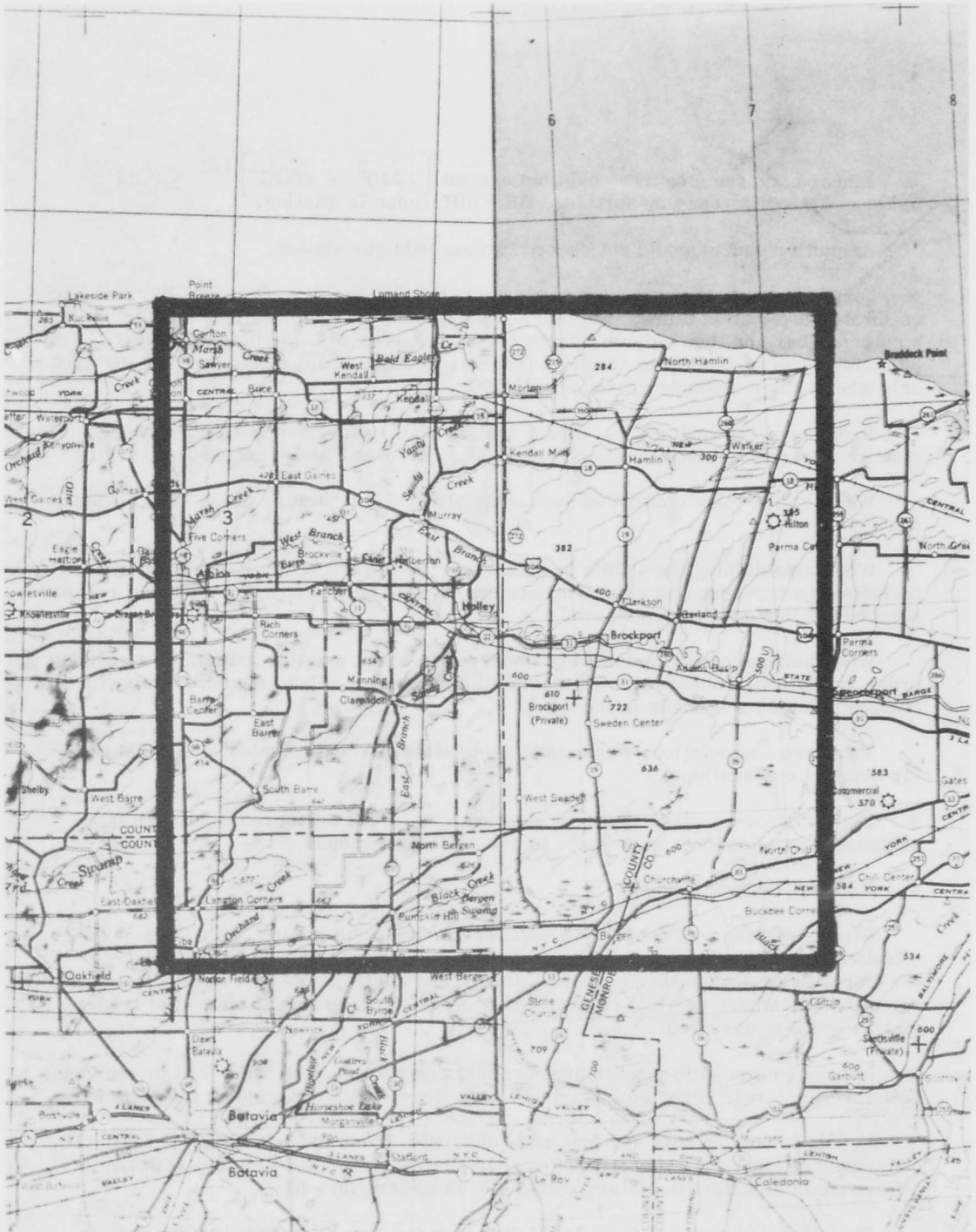


Figure 8. Brockport, Subrange #7
 b. Target Overlay
 c. Area Topographic Map

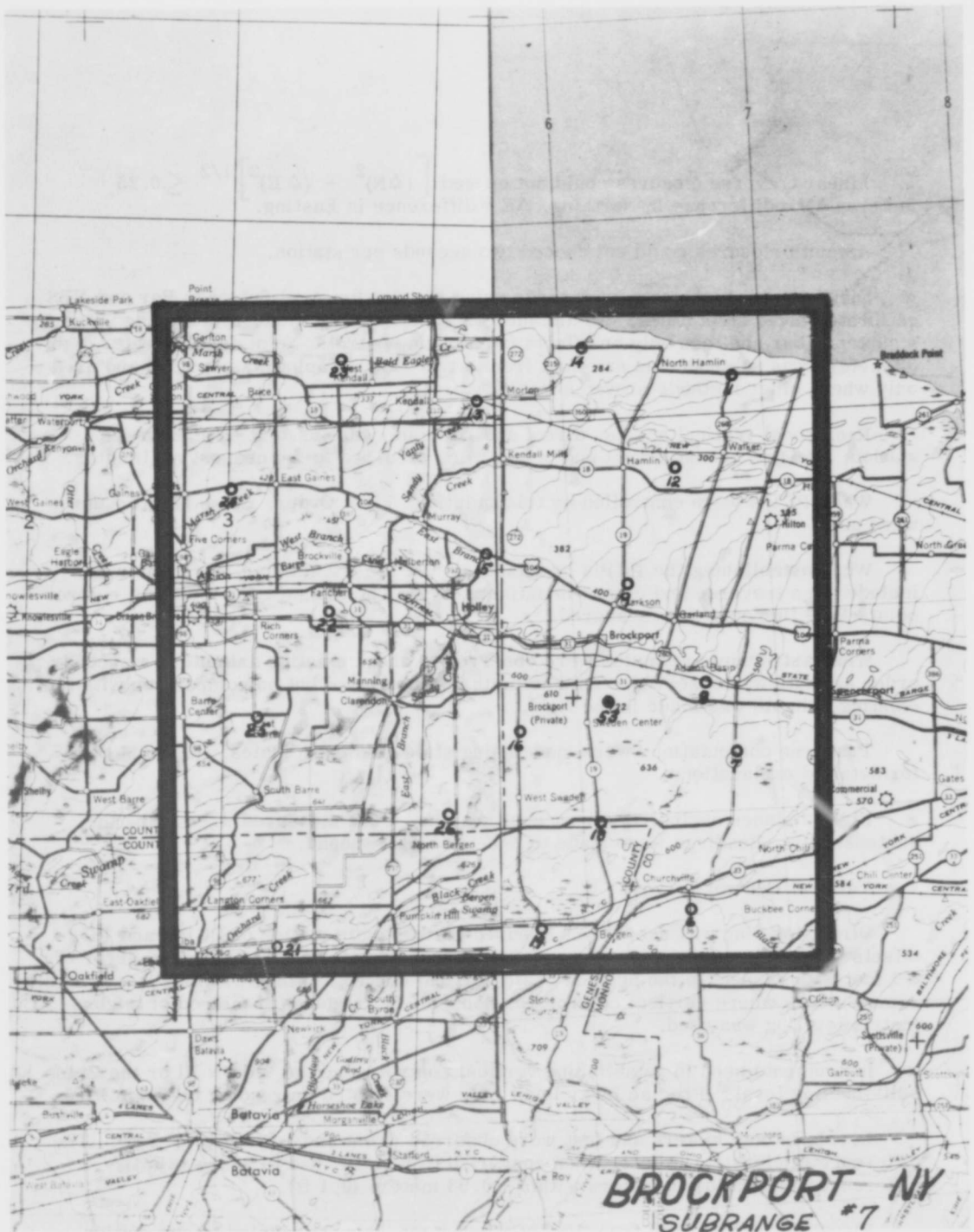


Figure 8. Brockport, Subrange #7
 b. Target Overlay
 c. Area Topographic Map

Linear traverse closures could not exceed $\left[(\Delta N)^2 + (\Delta E)^2 \right]^{1/2} \leq 0.25$ meters; ΔN = difference in Northing, ΔE = difference in Easting.

Azimuth closures could not exceed two seconds per station.

Distance measurements were made using the Geodimeter, Subtense Bar and NBS calibrated Invar steel tapes. No distance that exceeded 150 meters was made using a subtense bar and then only on offsets from basic control. No distance greater than 30 meters was subtended as an offset from a traverse. Taping was avoided and used only where other methods proved unsatisfactory.

Reciprocal vertical angles, direct and reverse, were used at each traverse station. Heights of instrument and target were recorded to the nearest millimeter.

When PCP's were controlled by triangulation, First Order, Class III procedures were used.

When establishing the PCP's by offset, the PCP-PCP azimuth mark line was included in a traverse and closed in azimuth only. The distance for the basic control point, PCP line only was measured.

When astronomic azimuths were observed to check existing azimuths, a second order azimuth was observed. This azimuth was computed but no comparison with the existing azimuth was made in the field.

Traverse computations were made using state grid coordinates. (See TM-5-237 for detailed explanation.)

Eight distance angles, in direct position only, were measured when using the subtense bar. Readings were made to one-tenth of a second.

4. Vertical Control Surveys

Direct leveling was used which assured the vertical location of PCP's and PCP offsets above mean sea level within each subrange area to within a standard error of ± 1 foot with respect to the nearest basic vertical control. For elevations in extremely remote areas where vertical control was nonexistent, a standard method of trigonometric leveling was used.

Instruments used in establishing vertical control were the Wild N III or the Zeiss self-leveling level. Precise Invar level rods were sighted on reading only one wire.

Levels in both meters and feet were observed (front and back of level rod). The difference in elevation in feet, when converted to meters, had to agree with the difference in elevation in meters within ± 0.03 meters (0.1 ft).

Elevations determined from USC&GS bench marks were related to one station; however, elevations determined from USGS bench marks were related to two stations and a stability check to eliminate any possible vertical discrepancies was made between them. Once the stability of the stations was verified, loops were run to PCP's from either station.

The differences between the published elevations and 1381st elevations were not to exceed ± 0.06 meters (0.2 ft). If this condition existed, additional BM's were leveled to; however, 1381st GSS levels were first investigated. Final elevations are based on USC&GS & USGS basic level control and referred to Mean Sea Level (MSL 1927).

The closure error, either loop or section, to a PCP did not exceed ± 0.2 meter (0.66 ft).

5. Monuments

Photo control points (PCP's) other than direct photo-identifiable points are monumented with a 1-inch gas pipe 24" long, driven flush with the ground.

Each PCP monument is provided with an intervisible azimuth mark located at a minimum distance of one-half mile. The azimuth marks are the same type monument as the PCP's, i. e. gas pipe. In incidents where PCP's are at the intersection of highways' center lines the PCP monuments are offset to a protected location. The PCP center is marked by a railroad spike, "PK" nail or chiseled across.

6. Target and Station Designation

All existing control stations have been designated as stamped by the originator. PCP's have been designated by subrange and point number. Those PCP's whose numbers are less than 50 are intersections, i. e. cross roads, "T" intersections. Example: PCP 12 in Subrange 4 is numbered 4-12 and is a road intersection. Those PCP's whose numbers are greater than 50 are target areas located on leased land. Example: PCP 60 in Subrange 4 is numbered 4-60 and is a target in an open field on private land.

The azimuth mark for each PCP is designated as above. Example: azimuth mark for PCP 4-12 is 4-12 azimuth mark.

Intermediate traverse stations are designated with a letter suffix beginning with "A" to the PCP number of the next forward control point. Example: Traverse to PCP 4-12 is 4-12A, 4-12B, etc. When more than one PCP is on the same traverse the suffix is followed by the number of PCP's in the traverse. In this case, either PCP number was used for traverse station designation.

When PCP's were offsets from an existing control station, an azimuth mark was set at a minimum distance of 1/2 mile. The offset PCP was designated as noted in paragraph 2.

Azimuth marks were not required when direct photo-identification of existing horizontal control points were possible.

7. Target Descriptions

All PCP monuments including Federal, state and/or county road numbers, distances and bearings to cultural features have been described by a sketch of each immediate area. The azimuth mark is described with reference to its PCP.

Recovery notes for triangulation stations and bench marks have been written in accordance with S. P. 247 and S. P. 239.

The following notes were written in accordance with S. P. 247 and S. P. 239.

Station 1000 is a triangulation station located on the east side of the road. It is a concrete monument with a metal cap. The station is located on a slight rise and is easily accessible. The monument is approximately 10 feet high and 6 inches in diameter. The station is located on a concrete pad which is approximately 4 feet square. The station is located on a concrete pad which is approximately 4 feet square.

Station 1001 is a triangulation station located on the west side of the road. It is a concrete monument with a metal cap. The station is located on a slight rise and is easily accessible. The monument is approximately 10 feet high and 6 inches in diameter. The station is located on a concrete pad which is approximately 4 feet square. The station is located on a concrete pad which is approximately 4 feet square.

Station 1002 is a triangulation station located on the east side of the road. It is a concrete monument with a metal cap. The station is located on a slight rise and is easily accessible. The monument is approximately 10 feet high and 6 inches in diameter. The station is located on a concrete pad which is approximately 4 feet square. The station is located on a concrete pad which is approximately 4 feet square.

Station 1003 is a triangulation station located on the west side of the road. It is a concrete monument with a metal cap. The station is located on a slight rise and is easily accessible. The monument is approximately 10 feet high and 6 inches in diameter. The station is located on a concrete pad which is approximately 4 feet square. The station is located on a concrete pad which is approximately 4 feet square.

Station 1004 is a triangulation station located on the east side of the road. It is a concrete monument with a metal cap. The station is located on a slight rise and is easily accessible. The monument is approximately 10 feet high and 6 inches in diameter. The station is located on a concrete pad which is approximately 4 feet square. The station is located on a concrete pad which is approximately 4 feet square.

Station 1005 is a triangulation station located on the west side of the road. It is a concrete monument with a metal cap. The station is located on a slight rise and is easily accessible. The monument is approximately 10 feet high and 6 inches in diameter. The station is located on a concrete pad which is approximately 4 feet square. The station is located on a concrete pad which is approximately 4 feet square.

REFERENCES

1. Merchant, Dean C., "Space Surveillance System Evaluation by A Method of Photogrammetric Resection," RADC-TDR-62-442, October 1962.
2. Schafer, Francis J., "ASFIR Evaluation System Data Reduction," EMA-TM-65-6, August 1965.
3. Brown, D., "Advanced Reduction and Calibration for Photogrammetric Cameras," AFCRL-64-40, Instrument Corp of Florida, 10 Jan 64,
4. Simmons, L., "How Accurate is First Order Triangulation?", Journal Coast & Geodetic Survey, April 1950.

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APPENDIX I

ASFIR Subrange Geodetic Data

	Page
a. Subrange #1 — Massena, N. Y.	34
b. Subrange #2 — Bridport, Vermont.	70
c. Subrange #4 — Middletown, N. Y.	100
d. Subrange #5 — Sunbury, Pa.	122
e. Subrange #6 — Hornell, N. Y.	156
f. Subrange #7 — Brockport, N. Y.	244

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 1
 Pg 1 of 20 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 1 PCP: 1-02 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Lawrenceville
 (Scale) 1:24,000

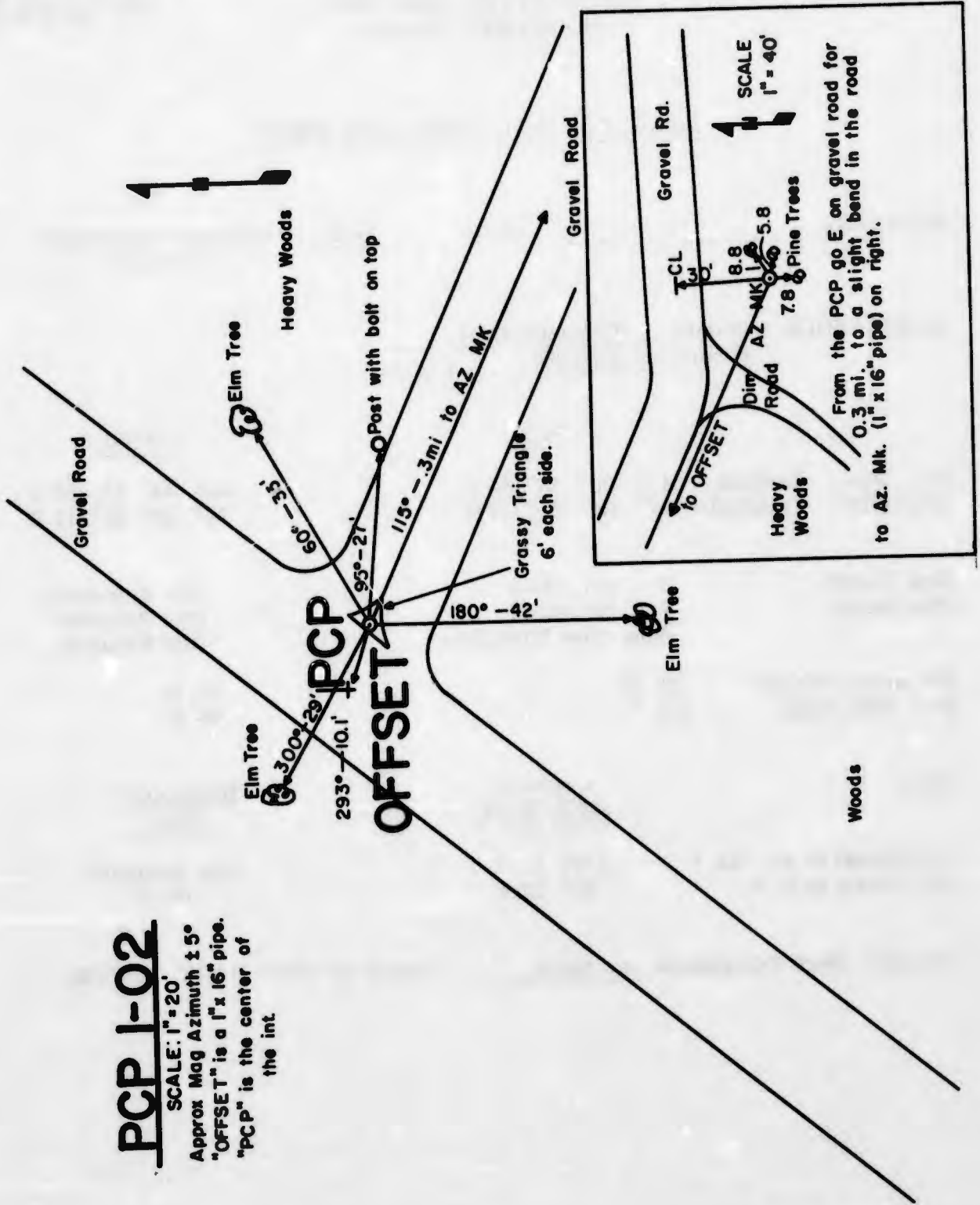
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos: Latitude	44° 51' 53"554 N	44° 51' 53"539 N
NAD 1927: Longitude	74° 43' 59"516 W	74° 43' 59"377 W
Grid Coord:	X 396,319.0	(Not Required)
(Mercator)	Y 1,773,132.0	(Not Required)
	Zone New York-East	(Not Required)
Elevation (Meters)	84.83	84.89
SLD 1929 (Feet)	278.3	278.5

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	100° 35' 5	Not Required
PCP Offset to PCP	278° 13' 5	10.1

*Azimuth Mark Designation Az Mark

PCP 1-02

SCALE: 1" = 20'
 Approx Mag Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is the center of
 the int.



1391ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 2
 Pg 2 of 20 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 1 PCP: 1-03 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Raquette River
 (Scale) 1:24,000

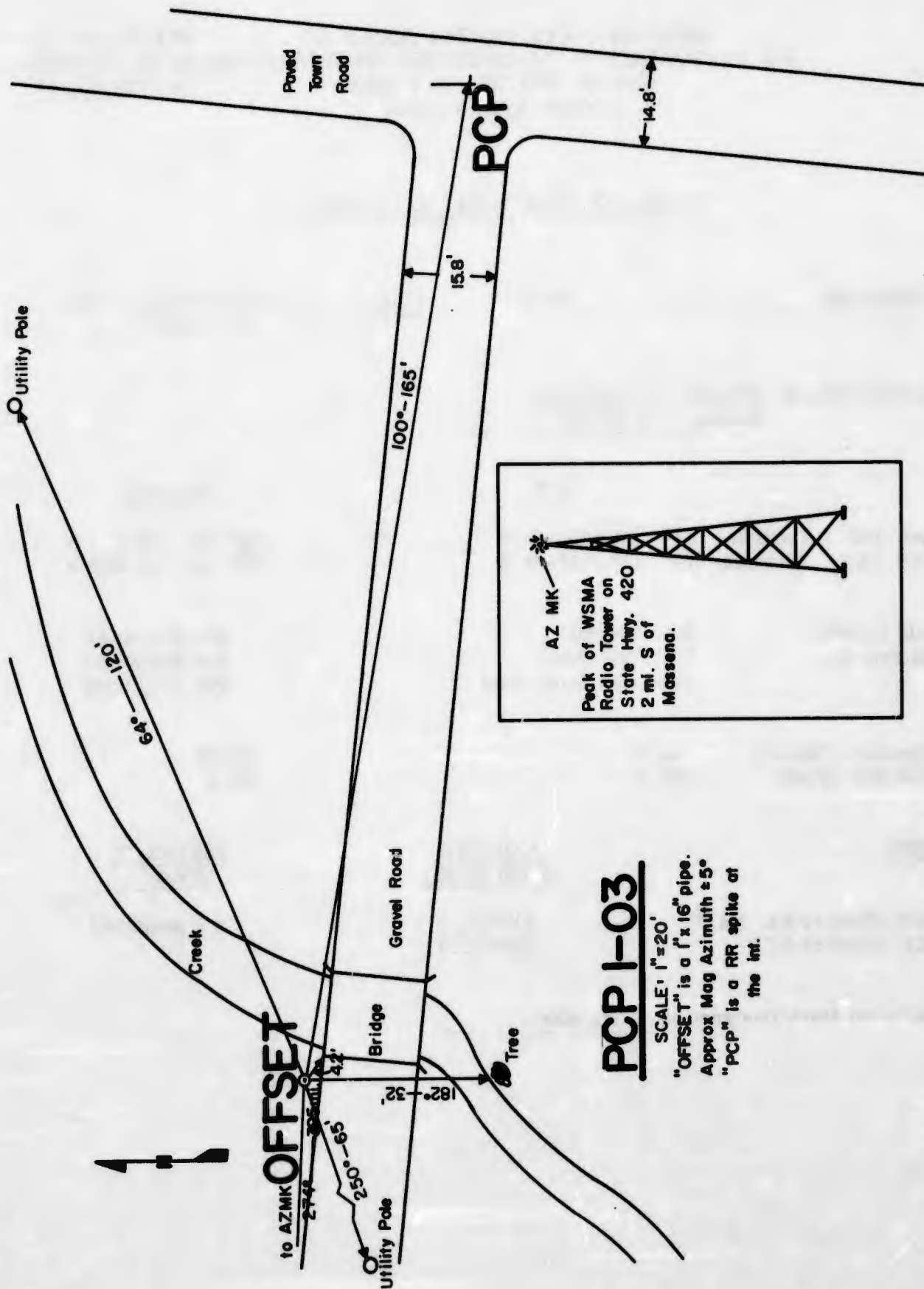
		<u>PCP</u>		<u>OFFSET</u>
Geo. Pos.:	Latitude	44° 54' 45"184 N		44° 54' 45"083 N
NAD 1927:	Longitude	74° 48' 25"958 W		74° 48' 28"249 W

Grid Coord:	X	377,230.0	
(Mercator)	Y	1,790,616.7	(Not Required)
	Zone	New York-East	(Not Required)

Elevation (Meters)	59.48		59.63
SLD 1929 (Feet)	195.1		195.6

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk. *	260° 01' 1	Not Required
PCP Offset to PCP	86° 27' 0	165.2

*Azimuth Mark Designation Az Mark (PEAK of WSMA RADIO TOWER)



10 AZMK OFFSET

PCP I-03

SCALE: 1"=20'
 "OFFSET" is a 1' x 16" pipe.
 Approx Mag Azimuth ± 5°
 "PCP" is a RR spike at
 the int.

135TH ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 3
 Pg 3 of 20 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

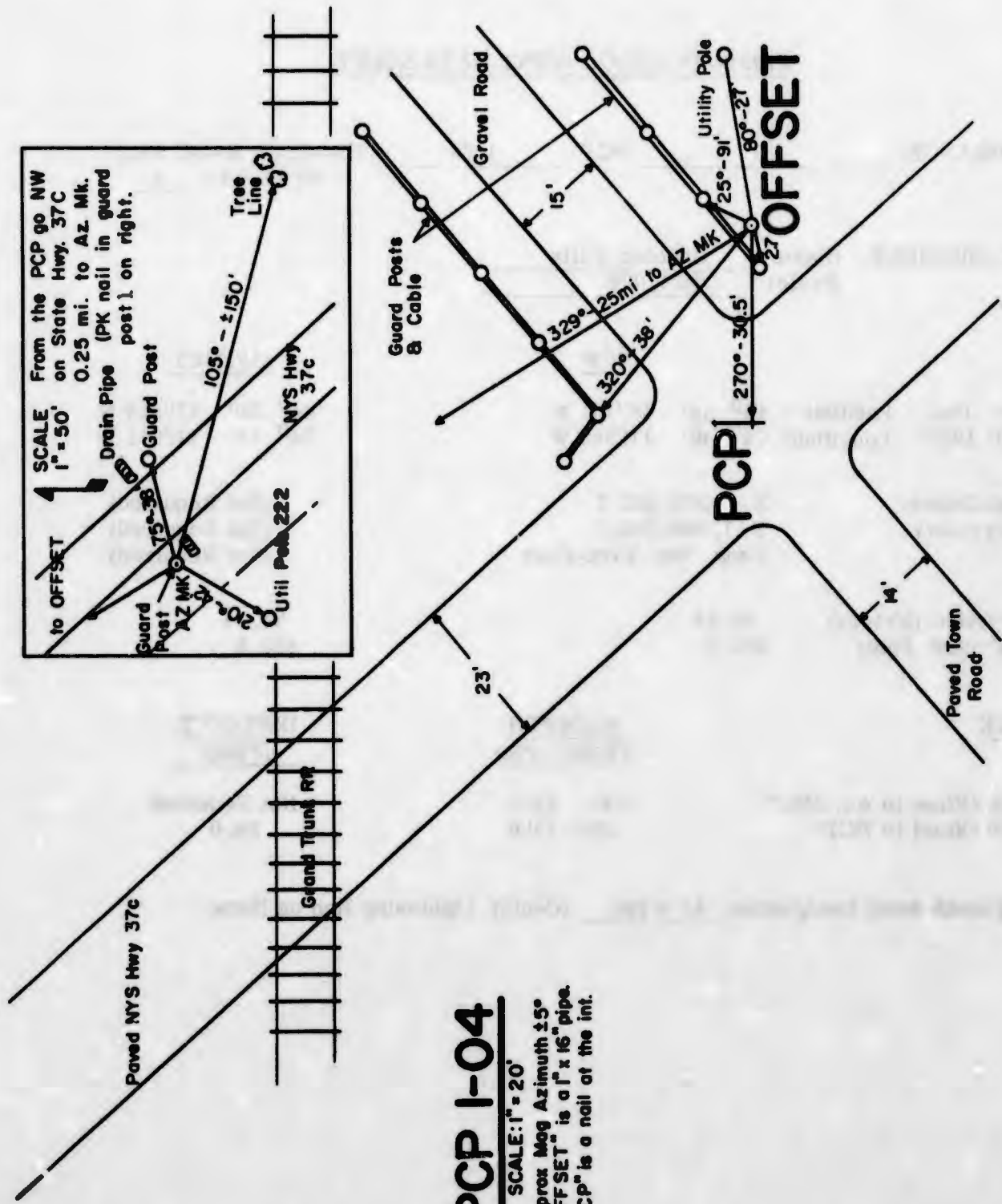
SUBRANGE: 1 PCP: 1-04 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Hogansburg
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	44° 55' 30!"926 N	44° 55' 30!"996 N
NAD 1927: Longitude	74° 43' 26!"434 W	74° 43' 26!"023 W
Grid Coord: (Mercator)	X 398,807.7 Y 1,795,134.3 Zone New York-East	(Not Required) (Not Required) (Not Required)
Elevation (Meters)	60.06	59.82
SLD 1929 (Feet)	197.0	196.3

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	315° 25! 8	Not Required
PCP Offset to PCP	256° 32! 1	30.4

*Azimuth Mark Designation Az Mark



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 4
 Pg 4 of 20 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 1 PCP: 1-05 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Bracher Falls
 (Scale) 1:24,000

PCP

Geo. Pos.: Latitude 44° 50' 48"131 N
 NAD 1927: Longitude 74° 49' 11"306 W

Grid Coord: X 373,822.7
 (Mercator) Y 1,766,629.0
 Zone New York-East

Elevation (Meters) 80.88
 SLD 1929 (Feet) 265.4

OFFSET

44° 50' 47"824 N
74° 49' 11"611 W

(Not Required)
 (Not Required)
 (Not Required)

80.44
263.9

LINE

AZIMUTH
(from North)

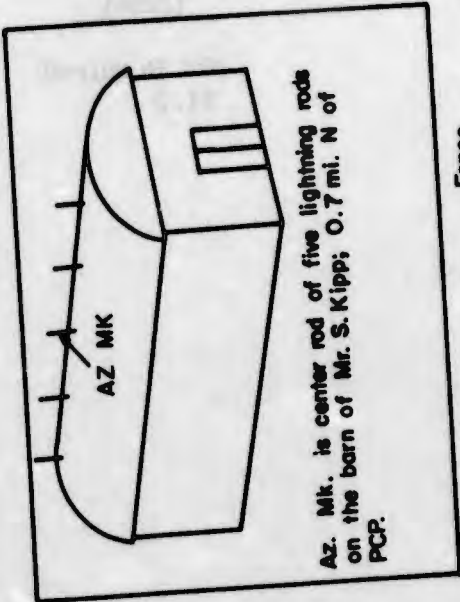
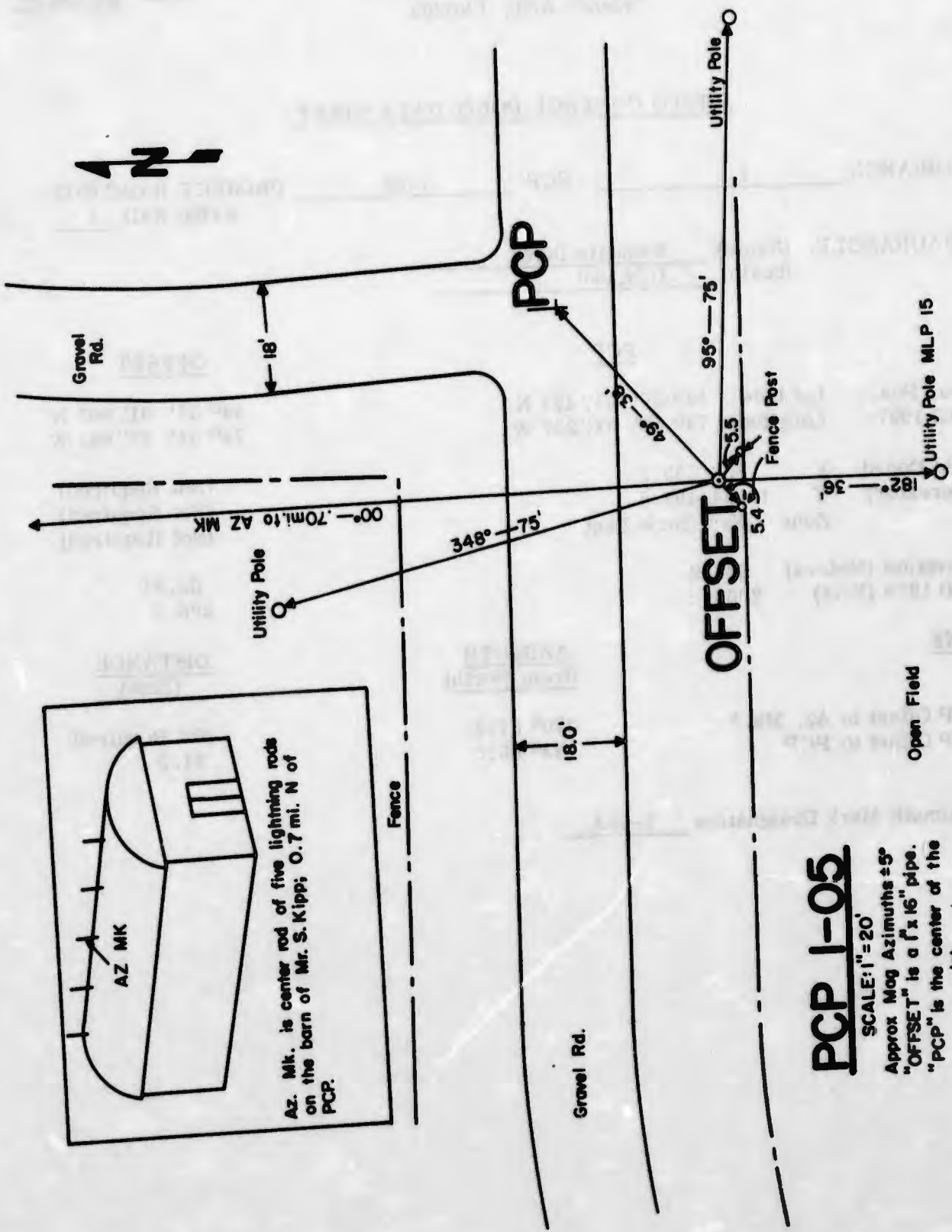
DISTANCE
(Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

345° 49' 6
35° 19' 9

Not Required
38.0

*Azimuth Mark Designation Az Mark (Center Lightning Rod on Barn)



Az. Mk. is center rod of five lightning rods on the barn of Mr. S. Kipp; 0.7 mi. N of PCP.

PCP 1-05
 SCALE: 1" = 20'
 Approx Mag Azimuths ± 5°
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is the center of the inf.

PHOTO CONTROL POINT DATA SHEET

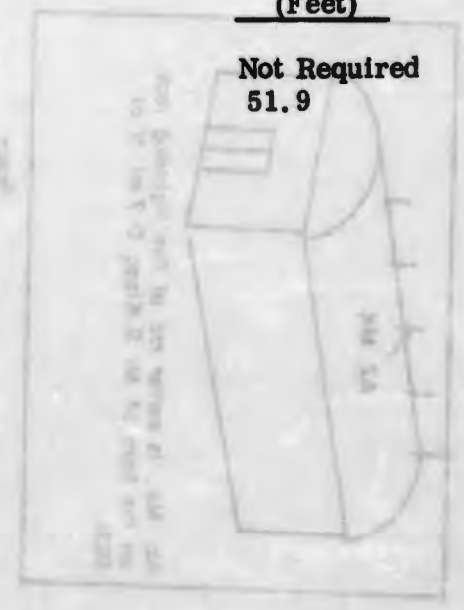
SUBRANGE: 1 PCP: 1-06 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Raquette River
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	44° 57' 01" 431 N	44° 57' 01" 002 N
NAD 1927: Longitude	74° 51' 37" 247 W	74° 51' 37" 641 W
Grid Coord: X	363,553.5	(Not Required)
(Mercator) Y	1,804,499.8	(Not Required)
Zone	New York-East	(Not Required)
Elevation (Meters)	63.02	62.81
SLD 1929 (Feet)	206.8	206.1

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	270° 57' 2	Not Required
PCP Offset to PCP	33° 05' 8	51.9

*Azimuth Mark Designation 1-06A



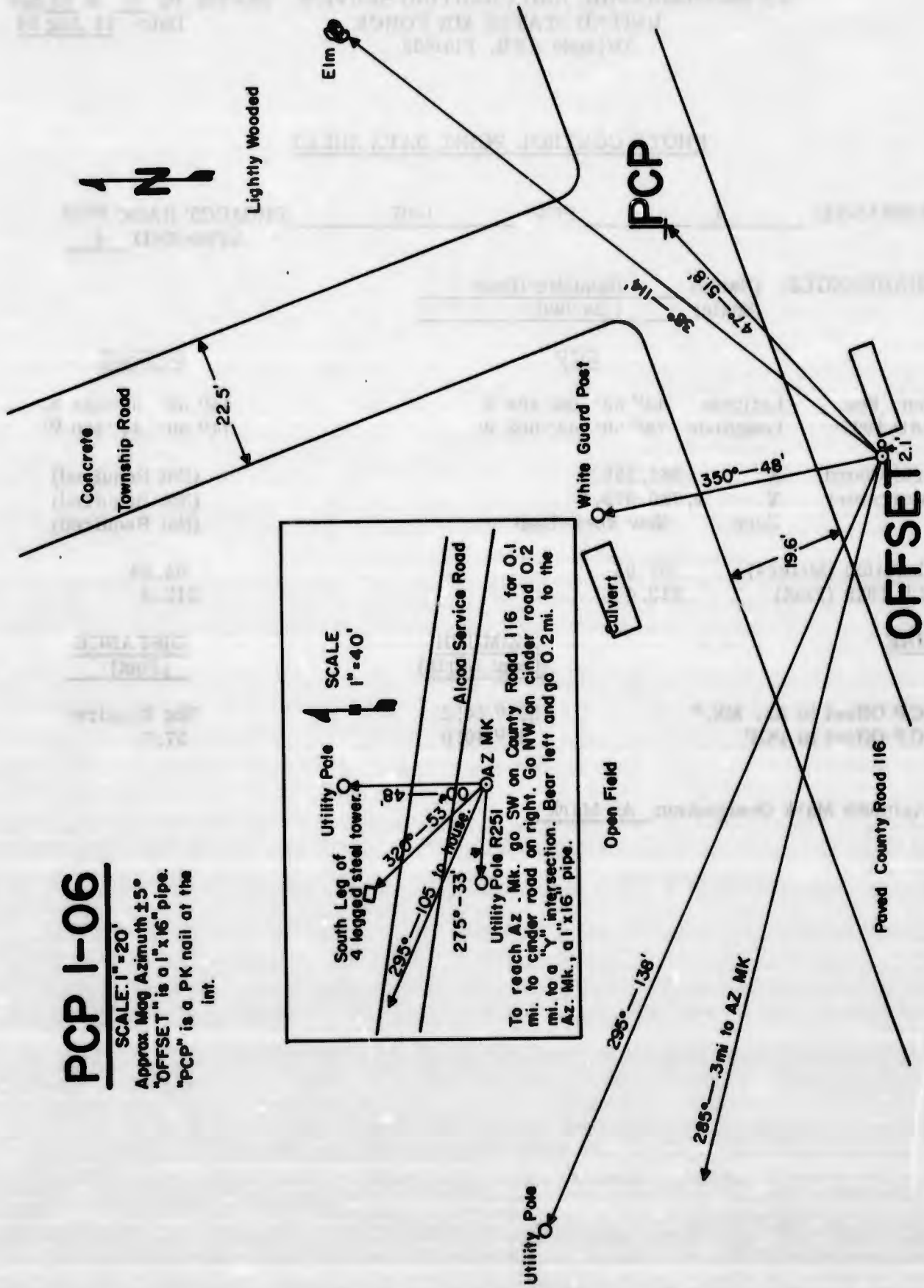
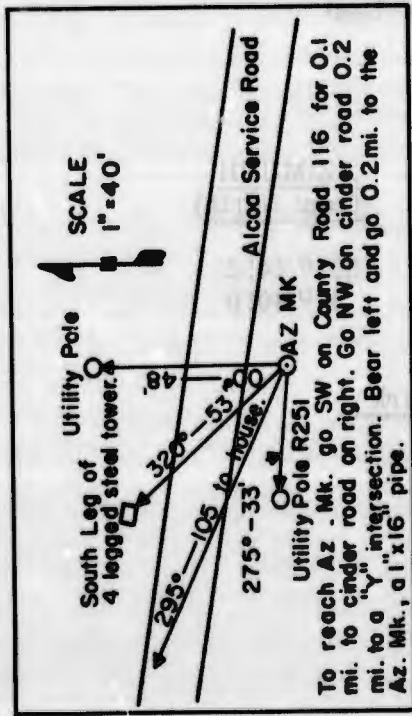
PCP I-06

SCALE: 1" = 20'

Approx Mag Azimuth $\pm 5^\circ$

"OFFSET" is a 1"x16" pipe.

"PCP" is a PK nail at the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 6
 Pg 6 of 20 pgs
 Date: 24 Aug 64

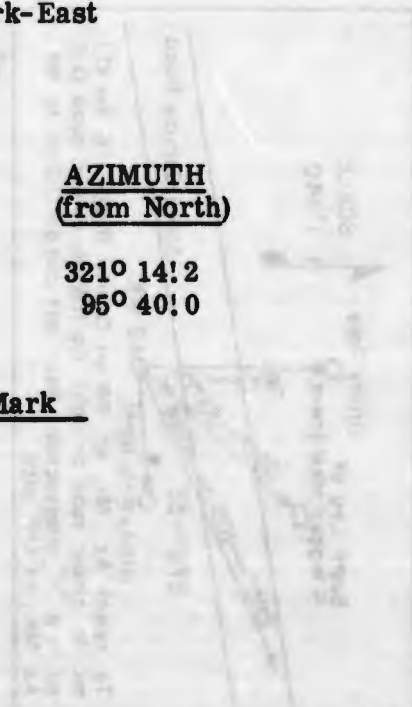
PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 1 PCP: 1-07 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Raquette River
 (Scale) 1:24,000

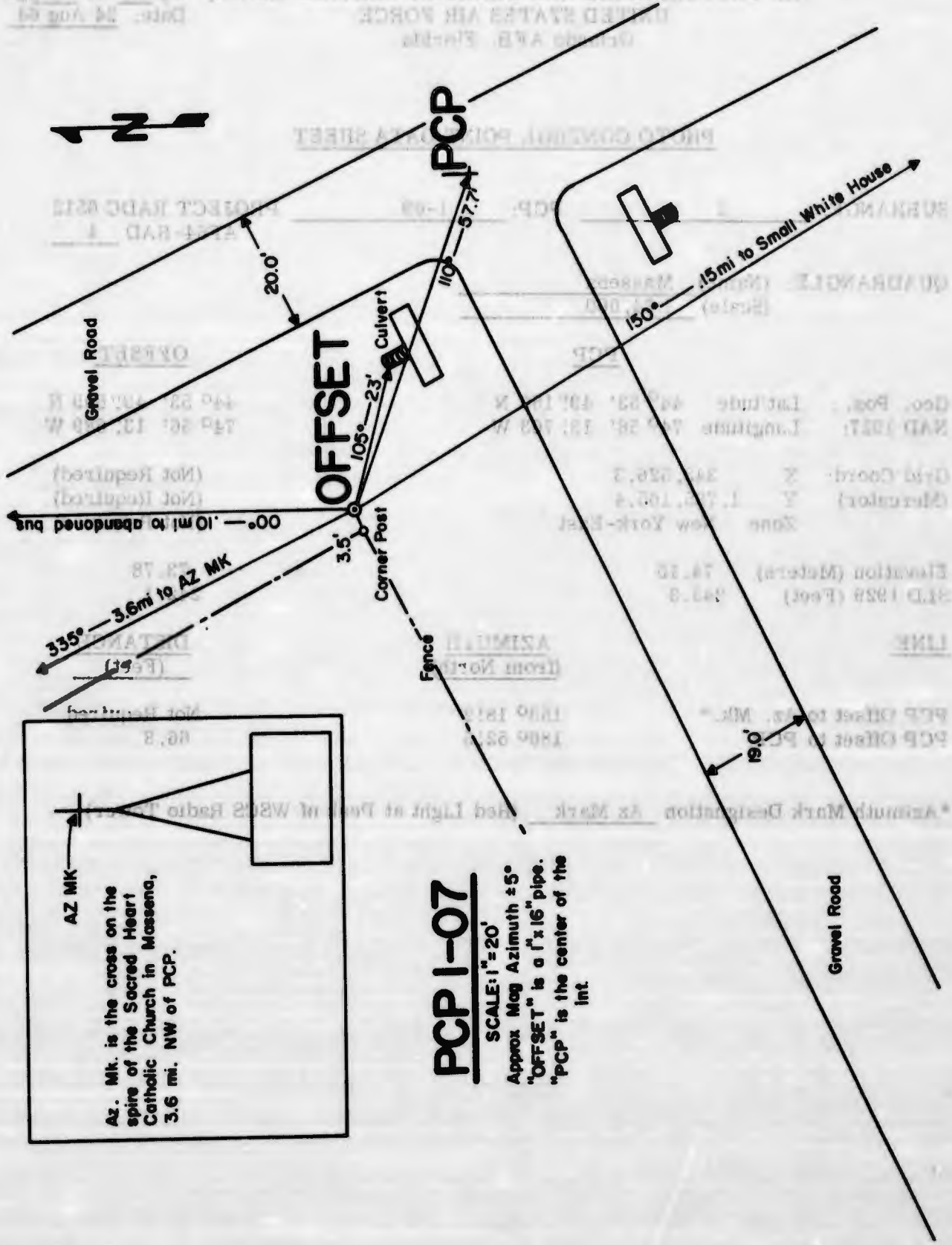
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	44° 53' 06" 468 N	44° 53' 06" 524 N
NAD 1927: Longitude	74° 50' 43" 663 W	74° 50' 44" 460 W
Grid Coord: X	367,256.9	(Not Required)
(Mercator) Y	1,780,679.6	(Not Required)
Zone	New York-East	(Not Required)
Elevation (Meters)	65.05	64.64
SLD 1929 (Feet)	213.4	212.1
<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	321° 14' 2"	Not Required
PCP Offset to PCP	95° 40' 0"	57.7

*Azimuth Mark Designation Az Mark



SCALE 1:24,000
 bCb 1-0e

FIRST GEODETIC SURVEY STATION
 AIR PHOTOGRAPHIC AND GRATING SERVICE (MATS) BY 7 of 20
 DATED 24 Nov 64
 UNITED STATES AIR FORCE
 GEORGE AFB TEXAS



AZ MK
 Az. Mk. is the cross on the
 spire of the Sacred Heart
 Catholic Church in Massena,
 3.6 mi. NW of PCP.

PCP I-07
 SCALE: 1"=20'
 Approx Mag Azimuth ±5°
 "OFFSET" is a 1"x16" pipe.
 "PCP" is the center of the
 Int.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 7
 Pg 7 of 20 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

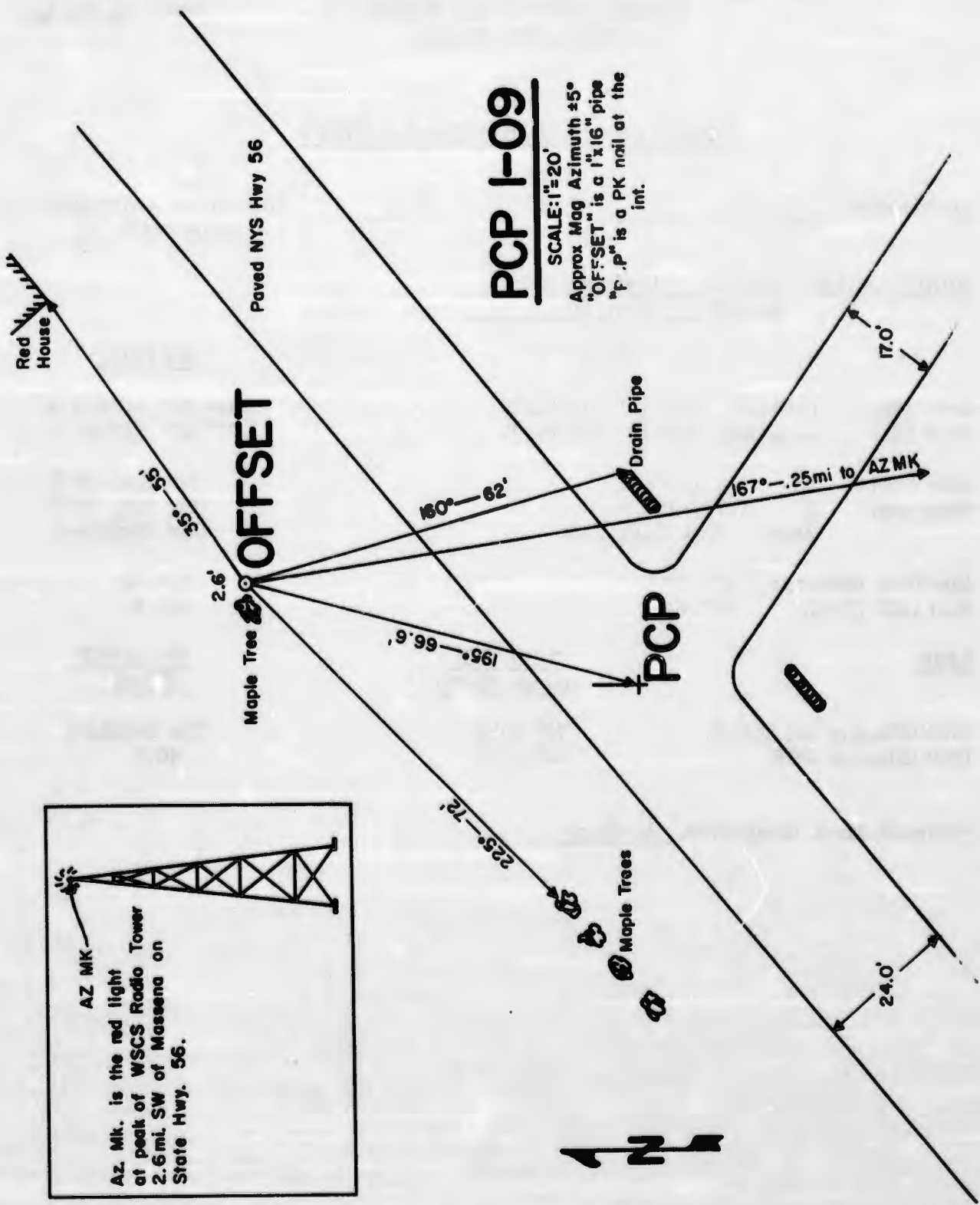
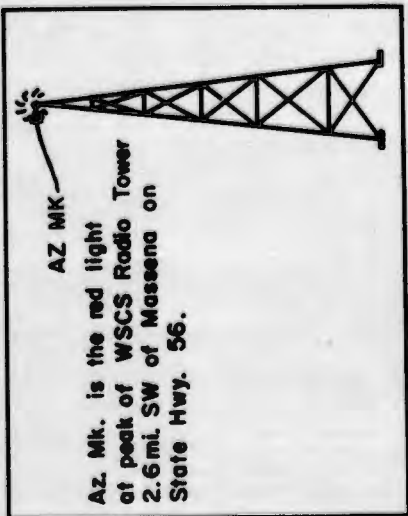
SUBRANGE: 1 PCP: 1-09 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Massena
 (Scale) 1:24,000

		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. :	Latitude	44° 53' 49" 150 N	44° 53' 49" 809 N
NAD 1927:	Longitude	74° 56' 13" 703 W	74° 56' 13" 689 W
Grid Coord:	X	343,526.3	(Not Required)
(Mercator)	Y	1,795,165.4	(Not Required)
	Zone	New York-East	(Not Required)
Elevation (Meters)		74.15	73.78
SLD 1929 (Feet)		243.3	242.1

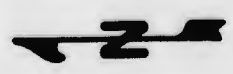
<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	153° 18' 2"	Not Required
PCP Offset to PCP	180° 52' 5"	66.8

*Azimuth Mark Designation Az Mark (Red Light at Peak of WSCS Radio Tower)



PCP I-09

SCALE: 1" = 20'
 Approx Mag Azimuth ±5°
 "OFFSET" is a 1"x16" pipe
 "P.P." is a PK nail at the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 8 of 20 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 8
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 1 PCP: 1-11 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Lawrenceville
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	44° 45' 41" 722 N	44° 45' 41" 426 N
NAD 1927: Longitude	74° 42' 52" 043 W	74° 42' 52" 527 W
Grid Coord: X	401,002.2	(Not Required)
(Mercator) Y	1,735,452.6	(Not Required)
Zone	New York-East	(Not Required)
Elevation (Meters)	133.39	133.30
SLD 1929 (Feet)	437.6	437.3

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	73° 30' 8	Not Required
PCP Offset to PCP	49° 19' 2	46.0

*Azimuth Mark Designation Az Mark

PCP I-II

SCALE: 1" = 20'
 Approx Mag Azimuth ± 5
 "OFFSET" is a 1" x 16" pipe
 "PCP" is a PK nail at the
 int.

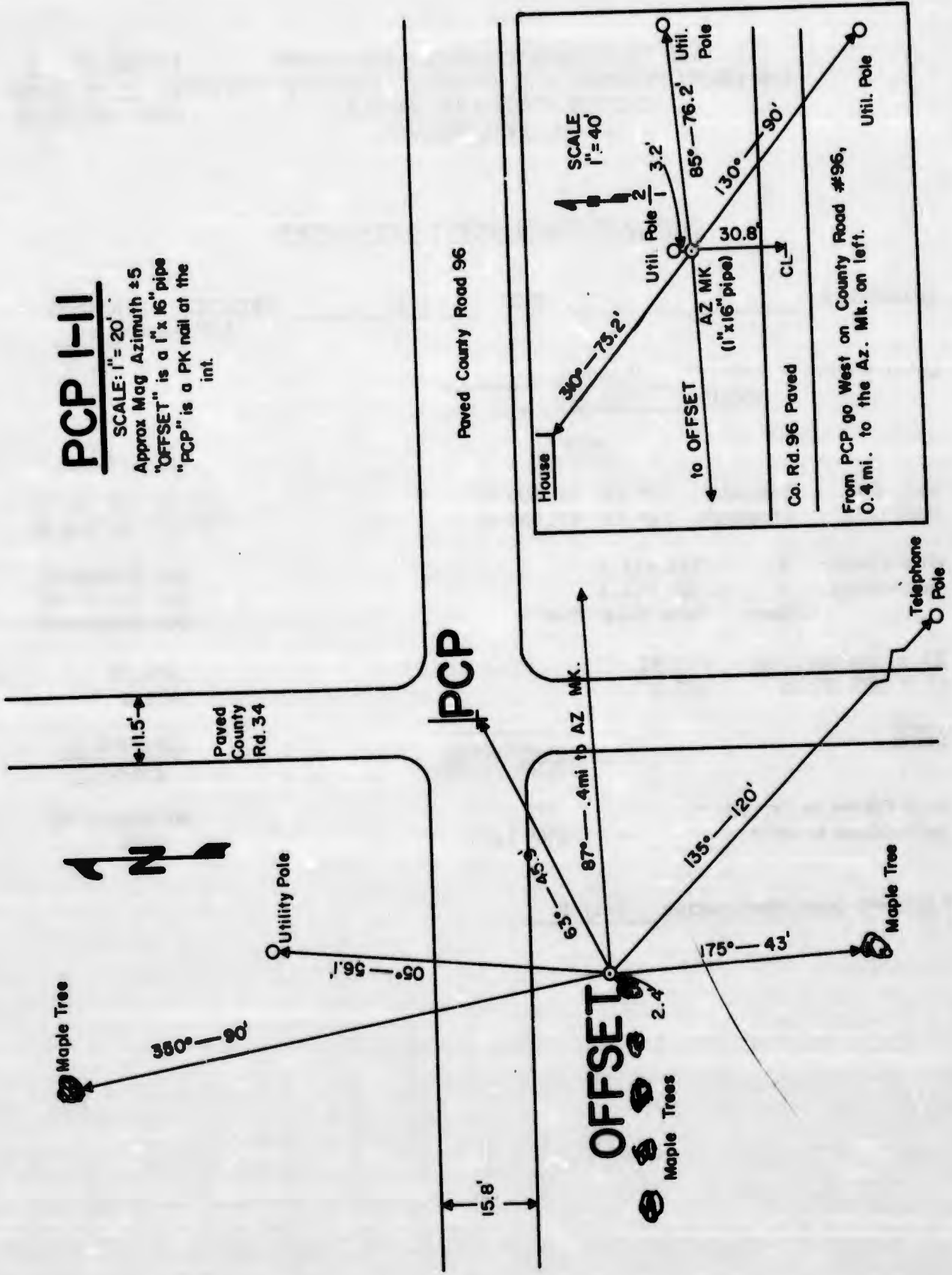


PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 1 PCP: 1-12 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Potsdam
 (Scale) 1:62,500

PCP

OFFSET

Geo. Pos. : Latitude 44° 43' 33" 999 N
 NAD 1927: Longitude 74° 48' 42" 054 W

44° 43' 34" 539 N
74° 48' 41" 144 W

Grid Coord: X 375,671.6
 (Mercator) Y 1,722,651.4
 Zone New York-East

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 139.42
 SLD 1929 (Feet) 457.4

139.12
456.4

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

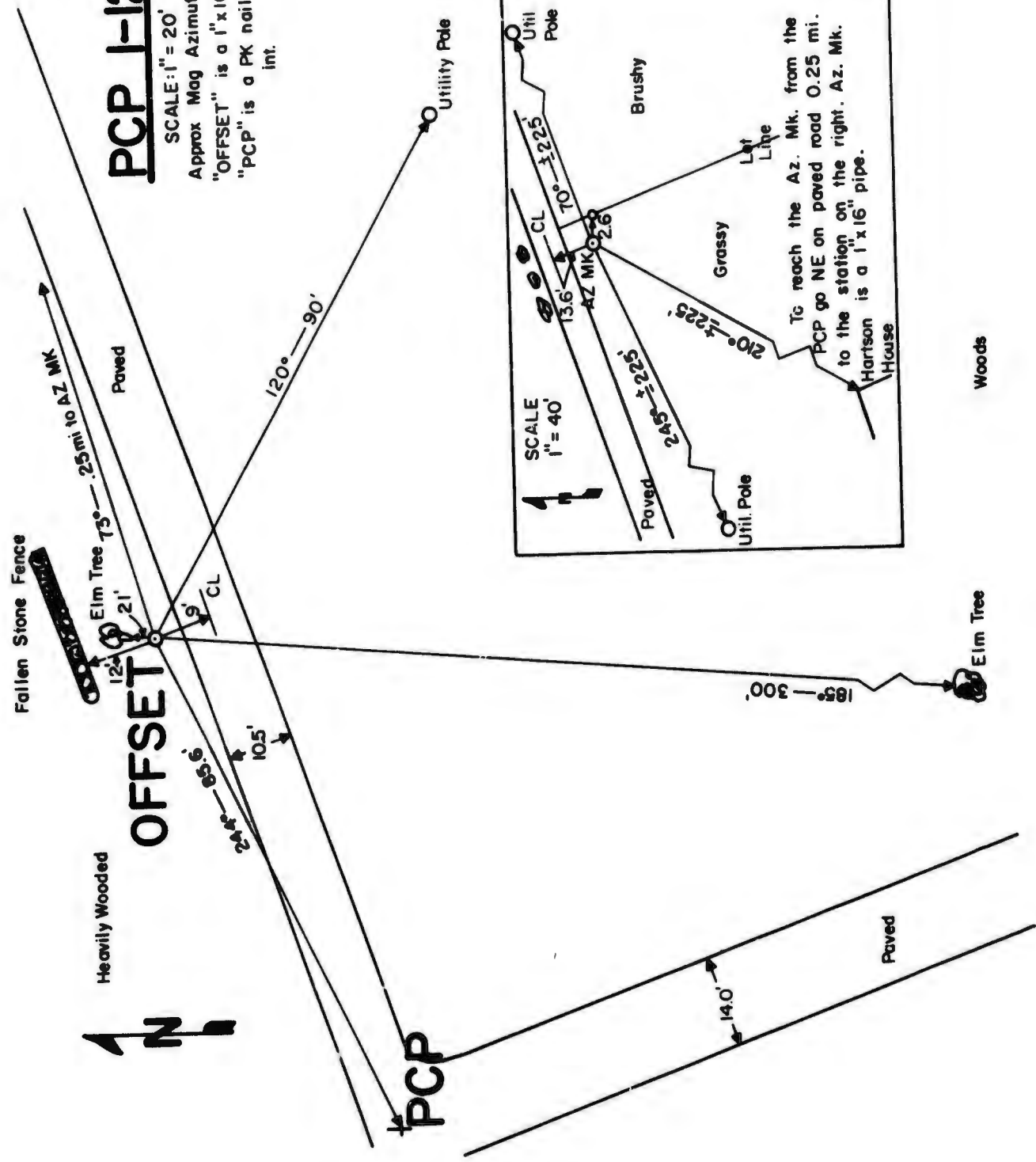
58° 46' 7
230° 11' 5

Not Required
85.6

*Azimuth Mark Designation 1-12 F

PCP 1-12

SCALE: 1" = 20'
Approx Mag Azimuth $\pm 5^\circ$
"OFFSET" is a 1" x 16" pipe.
"PCP" is a PK nail at the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 10 of 20 pgs
 UNITED STATES AIR FORCE Date: 24 Aug 64
 Orlando AFB, Florida

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 1 PCP: 1-13 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Massena
 (Scale) 1:24,000

PCP

OFFSET

Geo. Pos. : Latitude 44° 56' 12."017 N
 NAD 1927: Longitude 74° 59' 31."590 W

44° 56' 11."912 N
 74° 59' 31."120 W

Grid Coord: X 329,398.9
 (Mercator) Y 1,799,744.9
 Zone New York-East

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 79.02
 SLD 1929 (Feet) 259.3

78.71
 258.2

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk*
 PCP Offset to PCP

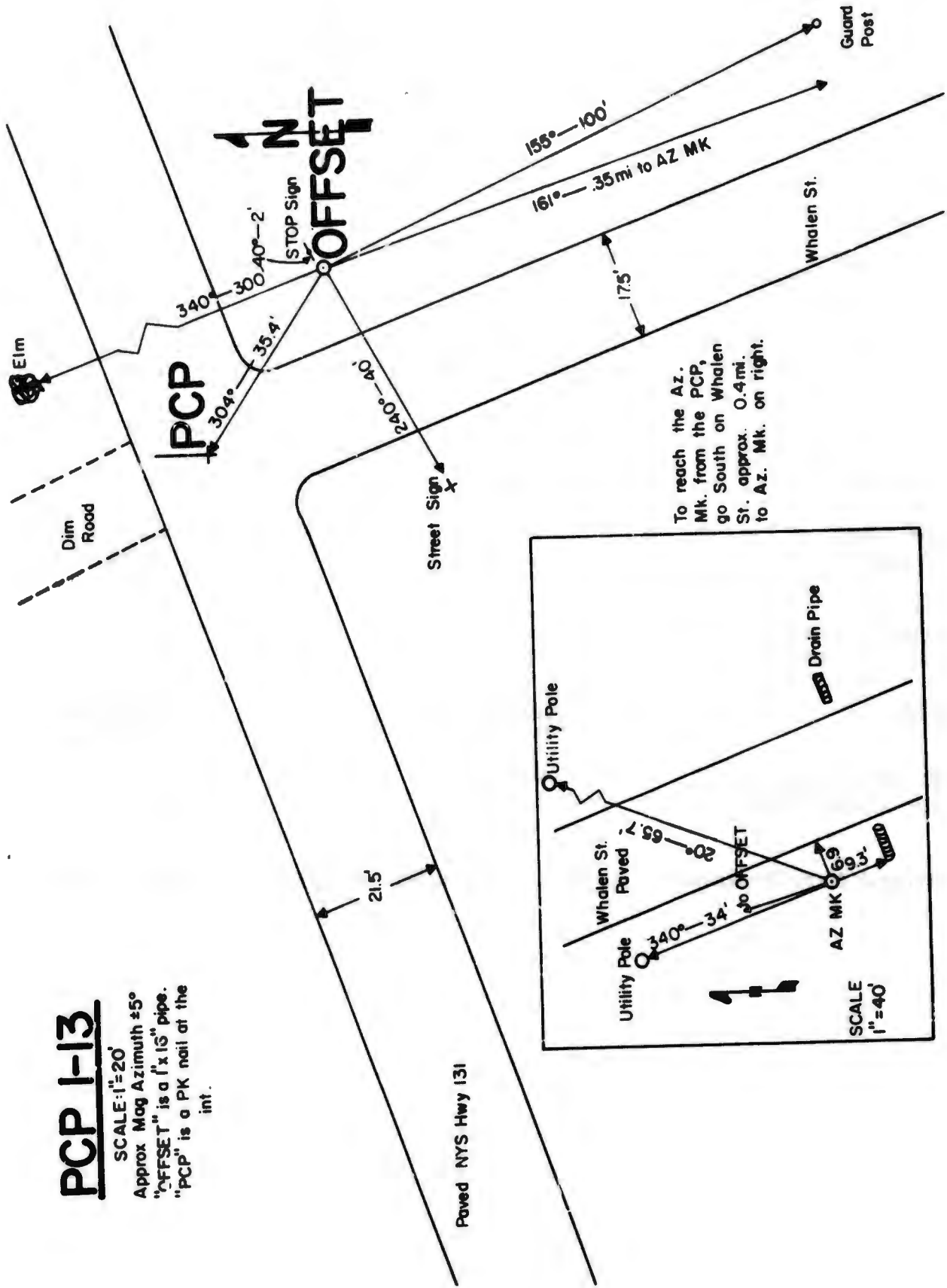
147° 06! 6
 287° 26! 6

Not Required
 35.5

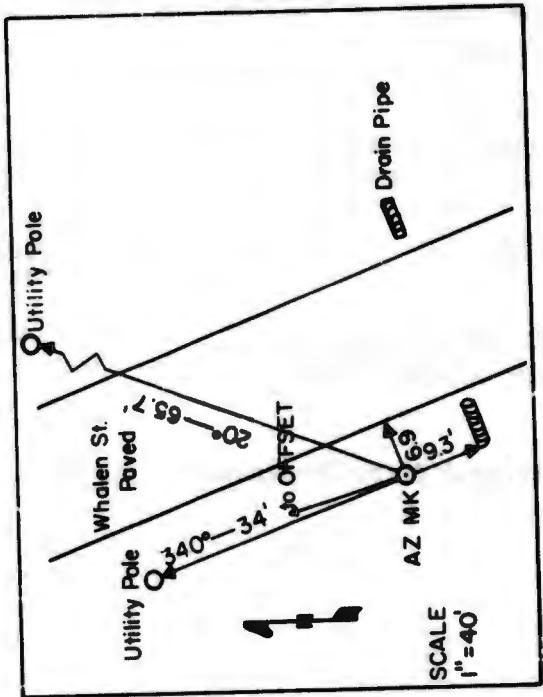
*Azimuth Mark Designation 1-13 Ez

PCP I-13

SCALE: 1"=20'
 Approx Mag Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 15" pipe.
 "PCP" is a PK nail at the
 int.



To reach the AZ. Mk. from the PCP, go South on Whalen St. approx. 0.4mi. to AZ. Mk. on right.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 11 of 20 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 11
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 1 PCP: 1-14 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Brasher Falls
 (Scale) 1:24,000

PCP

OFFSET

Geo. Pos. : Latitude 44° 47' 21" 969 N 44° 47' 21" 852 N
 NAD 1927: Longitude 74° 49' 23" 637 W 74° 49' 24" 479 W

Grid Coord: X 372,808.4 (Not Required)
 (Mercator) Y 1,745,755.9 (Not Required)
 Zone New York-East (Not Required)

Elevation (Meters) 110.58 110.43
 SLD 1929 (Feet) 362.8 362.3

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

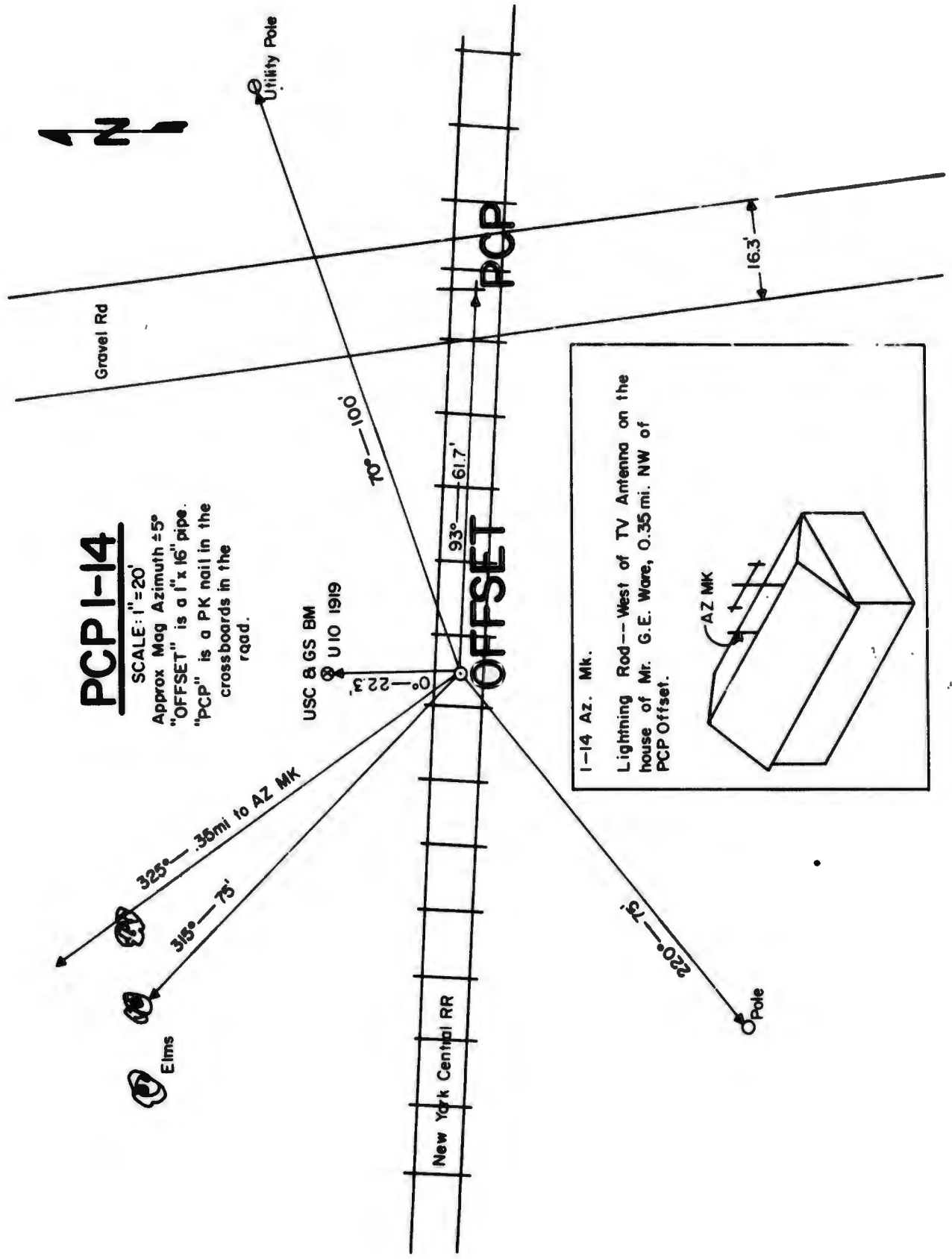
PCP Offset to Az. Mk. * 307° 09' 5 Not Required
 PCP Offset to PCP 78° 58' 2 61.8

*Azimuth Mark Designation Az Mark (Lightening, Rod West of TV Antenna on House)

PCPI-14

SCALE: 1"=20'

Approx Mag Azimuth $\pm 5^\circ$
"OFFSET" is a 1" x 16" pipe.
"PCP" is a PK nail in the crossboards in the road.



1-14 Az. Mk.
Lightning Rod -- West of TV Antenna on the house of Mr. G.E. Ware, 0.35 mi. NW of PCP Offset.

A 3D perspective drawing of a lightning rod structure, which is a rectangular box with a pointed top. A small vertical post is attached to the top surface, labeled 'AZ Mk'.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 12 of 20 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 12
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 1 PCP: 1-15 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Canton
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	44° 44' 31" 246 N	44° 44' 31" 395 N
NAD 1927: Longitude	75° 00' 54" 675 W	75° 00' 53" 815 W
Grid Coord: X	322,826.7	(Not Required)
(Mercator) Y	1,728,825.8	(Not Required)
Zone	New York-East	(Not Required)
Elevation (Meters)	119.92	120.10
SLD 1929 (Feet)	393.4	394.0

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	50° 53' 5	Not Required
PCP Offset to PCP	256° 18' 5	63.8

*Azimuth Mark Designation Norwood 1942

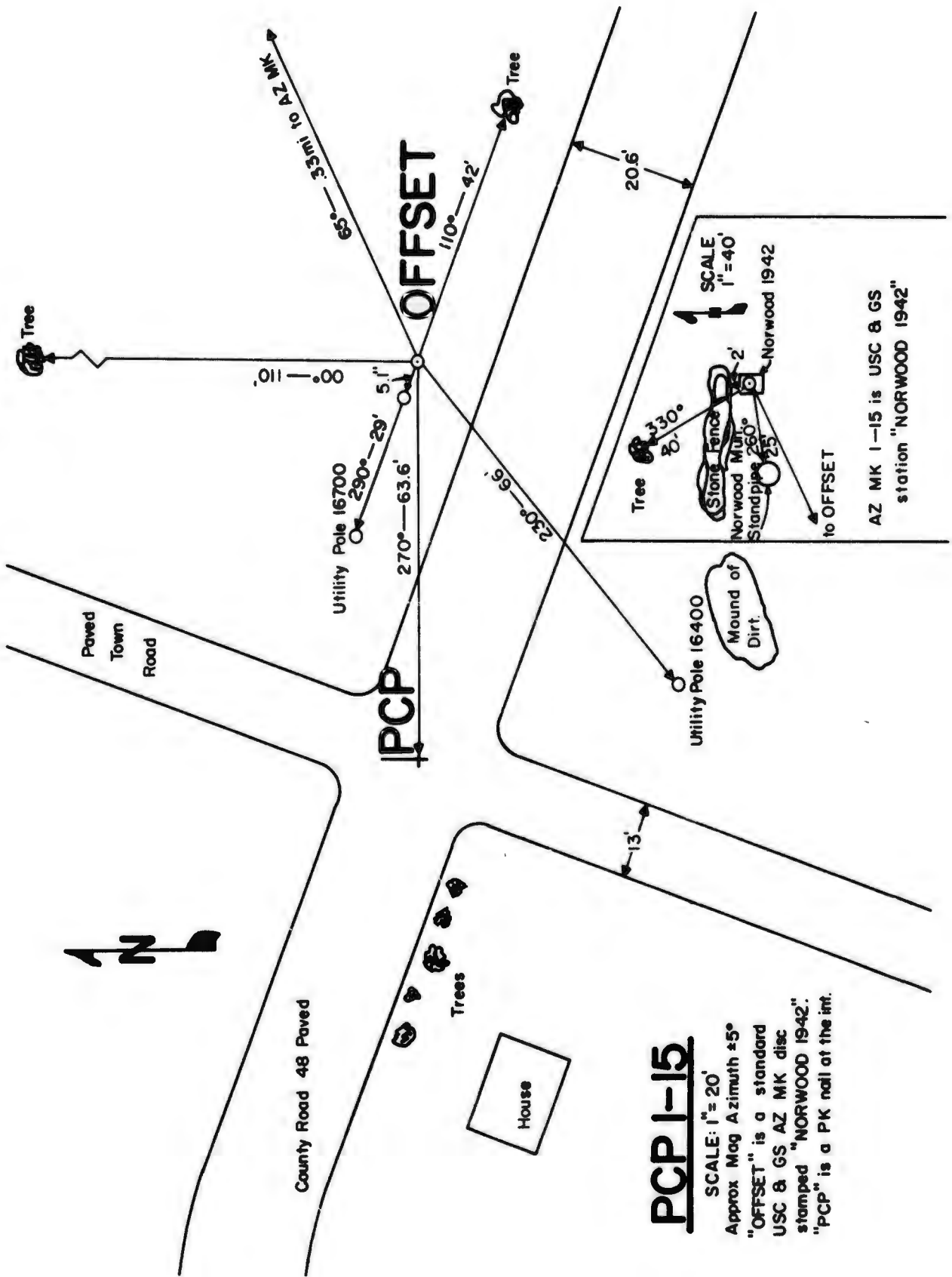


PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 1 PCP: 1-16 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Chase Mills
 (Scale) 1:24,000

PCP

OFFSET

Geo. Pos. : Latitude 44° 48' 28."812 N
 NAD 1927: Longitude 75° 03' 04."939 W

44° 48' 29."387 N
75° 03' 03."113 W

Grid Coord: X 313,636.8
 (Mercator) Y 1,752,965.1
 Zone New York-East

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 81.71
 SLD 1929 (Feet) 268.1

81.97
268.9

LINE

AZIMUTH
 (from North)

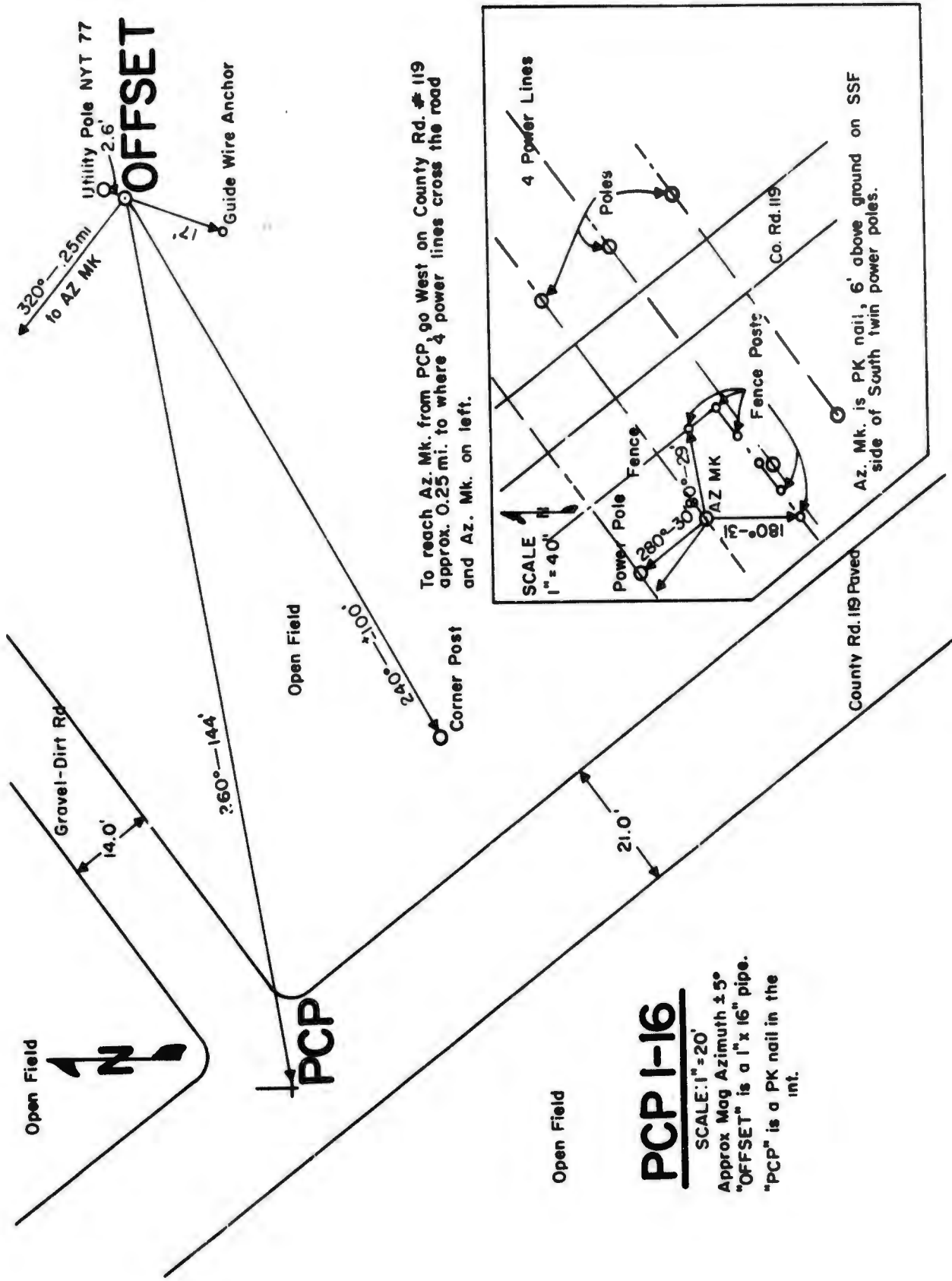
DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

305° 59' 8
246° 07' 3

Not Required
144.0

*Azimuth Mark Designation Azimuth Mark



PCP I-16

SCALE: 1" = 20'
 Approx Mag Azimuth ± 5°
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a PK nail in the int.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 14 of 20 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 14
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

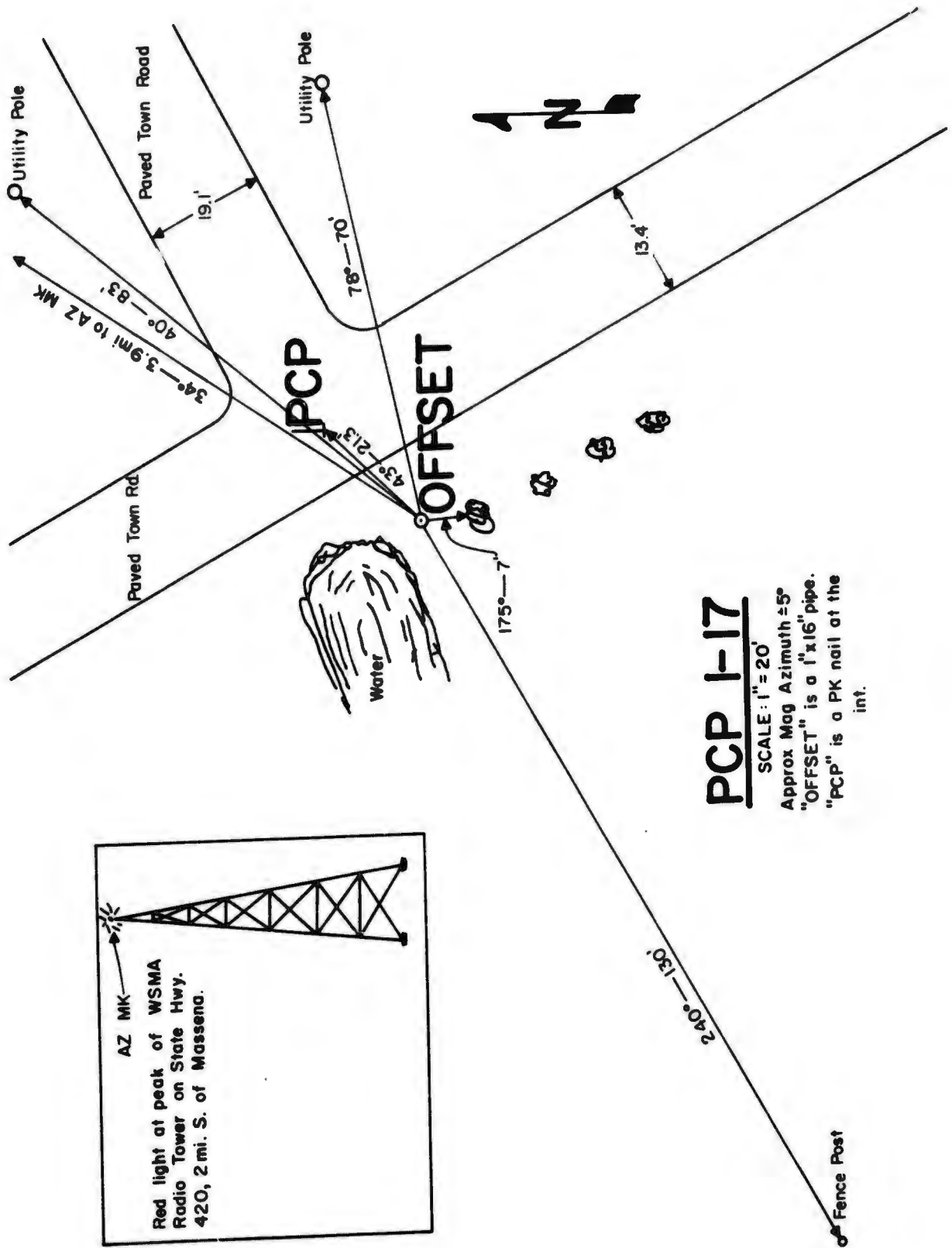
SUBRANGE: 1 PCP: 1-17 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Norfolk
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	44° 50' 55."729 N	44° 50' 55."543 N
NAD 1927: Longitude	74° 54' 43."153 W	74° 54' 43."295 W
Grid Coord: X	349,919.4	(Not Required)
(Mercator) Y	1,767,555.2	(Not Required)
Zone	New York-East	(Not Required)
Elevation (Meters)	74.89	74.76
SLD 1929 (Feet)	245.7	245.3

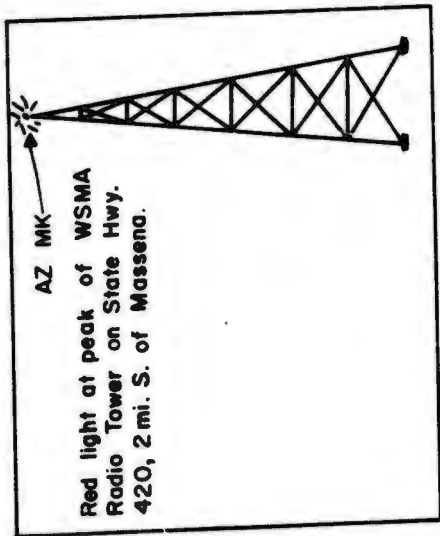
<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	20° 16! 1	Not Required
PCP Offset to PCP	29° 35! 7	21.4

*Azimuth Mark Designation Azimuth Mark (Red Light at Peak of WSMA Radio Tower)



PCP I-17

SCALE: 1" = 20'
 Approx Mag Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a PK nail at the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 15
 Pg 15 of 20 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 1 PCP: 1-18 PROJECT RADC 6512
 AF64-RAD 4

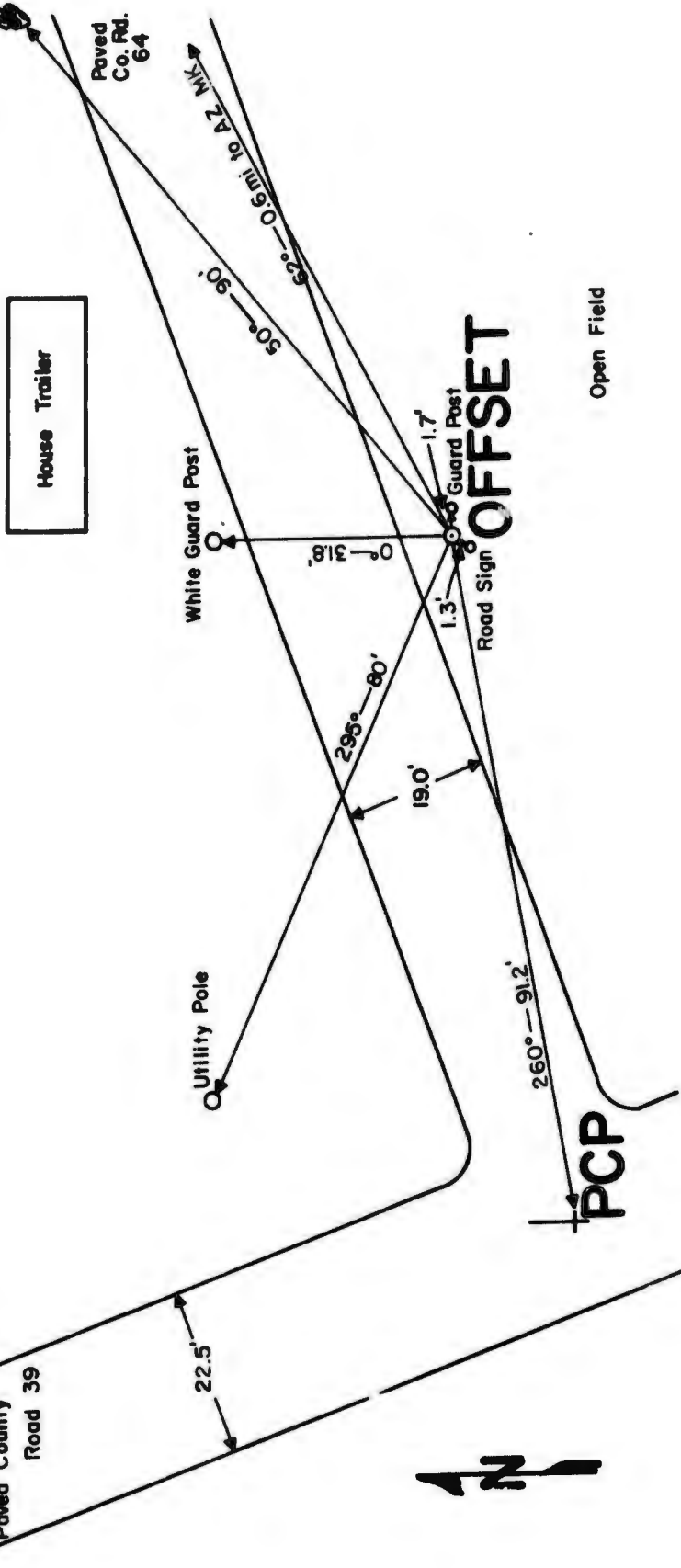
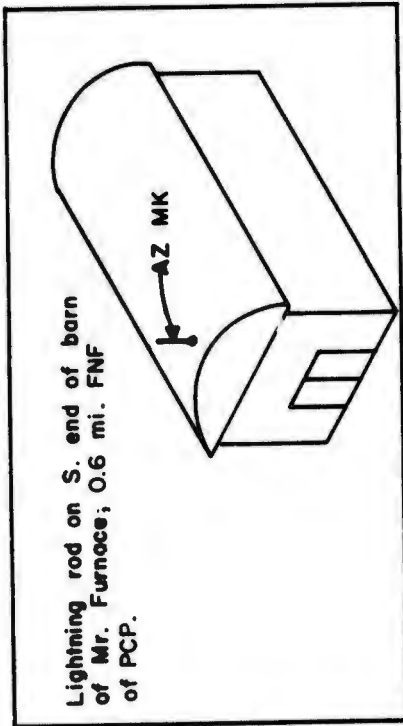
QUADRANGLE: (Name) Louisville
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	44° 53' 07" 371 N	44° 53' 07" 743 N
NAD 1927: Longitude	75° 00' 09" 521 W	75° 00' 08" 367 W
Grid Coord: X	326,516.1	(Not Required)
(Mercator) Y	1,781,067.5	(Not Required)
Zone	New York-East	(Not Required)
Elevation (Meters)	79.07	79.10
SLD 1929 (Feet)	259.4	259.5
<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	47° 32' 4	Not Required
PCP Offset to PCP	245° 36' 9	91.2

*Azimuth Mark Designation Az Mark (Lightning Rod on South End of Barn)

PCP I-18

SCALE: 1" = 20'
 Approx Mag Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a PK nail at the
 int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 16 of 20 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 16
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

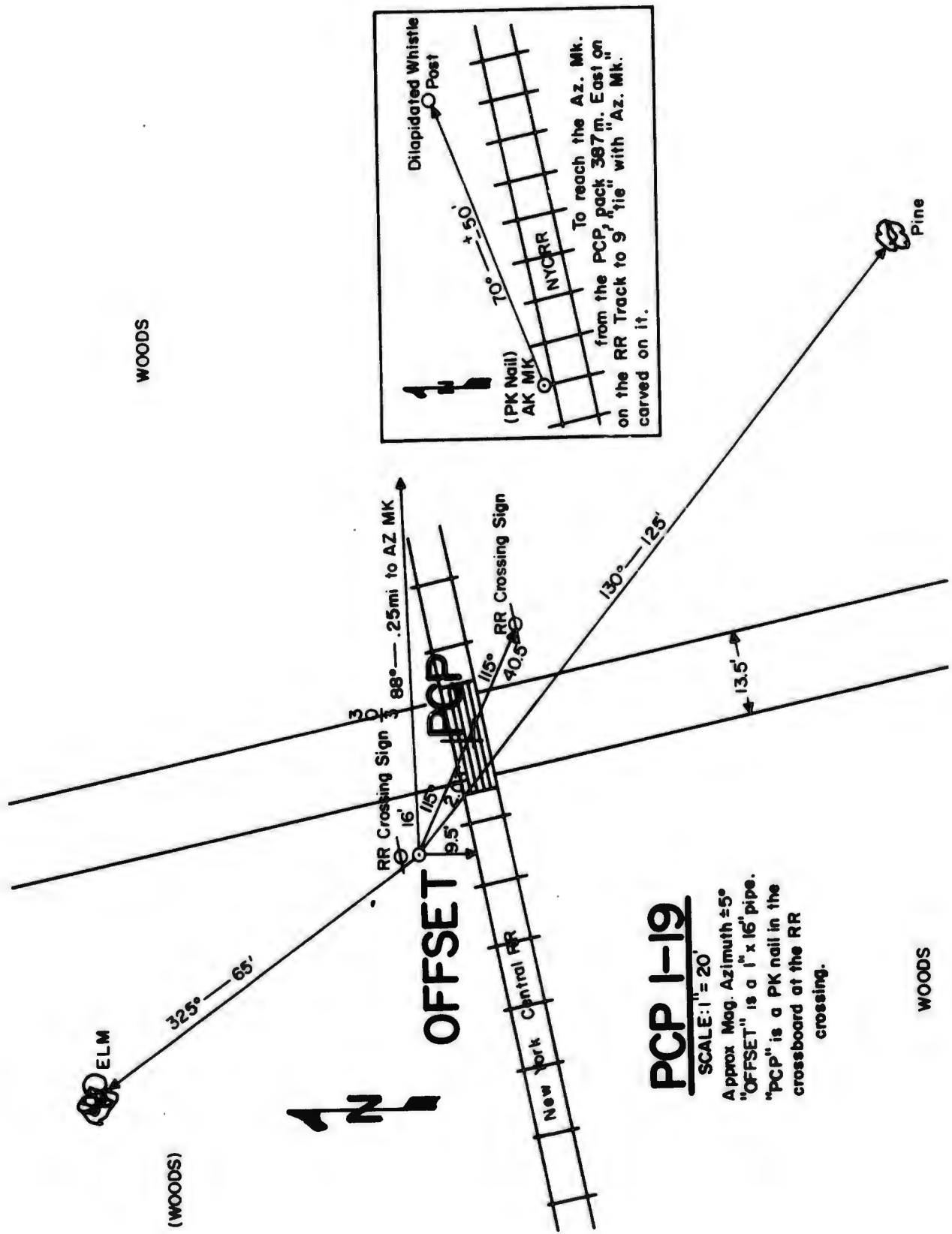
SUBRANGE: 1 PCP: 1-19 PROJECT RALC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Norfolk
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	44° 46' 47" 706 N	44° 46' 47" 744 N
NAD 1927: Longitude	74° 53' 17" 186 W	74° 53' 17" 464 W
Grid Coord: X	355,941.5	(Not Required)
(Mercator) Y	1,742,394.2	(Not Required)
Zone	New York-East	(Not Required)
Elevation (Meters)	103.66	103.33
SLD 1929 (Feet)	340.1	339.0

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	73° 37' 3"	Not Required
PCP Offset to PCP	101° 05' 3"	20.4

*Azimuth Mark Designation 1-14E



WOODS

(WOODS)

WOODS

Dilapidated Whistle
 O Post
 NYCRR
 (PK Nail)
 AK MK
 To reach the Az. Mk.
 from the PCP, pack 387m. East on
 on the RR Track to 9' tie with "Az. Mk."
 carved on it.

PCP I-19

SCALE: 1" = 20'

Approx Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a PK nail in the
 crossboard at the RR
 crossing.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) PCPDS NO. 17
 UNITED STATES AIR FORCE Pg 17 of 20 pgs
 Orlando AFB, Florida Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 1 (CHASE OFFSET) PCP: 1-51 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Waddington
 (Scale) 1:24,000

	<u>PCP</u>	<u>CHASE OFFSET)</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	44° 51' 15" 002 N		
NAD 1927: Longitude	75° 07' 32" 231 W		
Grid Coord: X	294,530.3		(Not Required)
(Mercator) Y	1,769,923.0		(Not Required)
Zone	New York-East		(Not Required)

Elevation (Meters) 88.36
 SLD 1929 (Feet) 289.9

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 18 of 20 pgs
 UNITED STATES AIR FORCE Date: 24 Aug 64
 Orlando AFB, Florida

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 1 (RAYMOND OFFSET) PCP: 1-52 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Chase Mills
 (Scale) 1:24,000

PCP

OFFSET

Geo. Pos. : Latitude 44° 50' 23" 477 N
 NAD 1927: Longitude 75° 00' 58" 292 W

Grid Coord: X 322,865.2 (Not Required)
 (Mercator) Y 1,764,498.8 (Not Required)
 Zone New York-East (Not Required)

Elevation (Meters) 88.06
 SLD 1929 (Feet) 288.9

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk.*
 PCP Offset to PCP Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
UNITED STATES AIR FORCE
Orlando AFB, Florida

PCPDS NO. 19
Pg 19 of 20 pgs
Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

(BRADFORD OFFSET)
SUBRANGE: 1 PCP: 1-56 PROJECT RADC 6512
AF64-RAD 4

QUADRANGLE: (Name) Louisville
(Scale) 1:24,000

PCP

OFFSET

Geo. Pos. : Latitude $44^{\circ} 55' 26''$ 485 N
NAD 1927: Longitude $75^{\circ} 04' 55''$ 886 W

Grid Coord: X 306,028.0
(Mercator) Y 1,795,336.2
Zone New York-East

(Not Required)
(Not Required)
(Not Required)

Elevation (Meters) 78.62
SLD 1929 (Feet) 257.9

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk. *
PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 1 (Madrid Offset) PCP: 1-58 PROJECT RADC 6512
 AF64-RAD 4

QUADRANGLE: (Name) Waddington
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	44° 45' 13" 816 N	
NAD 1927: Longitude	75° 07' 44" 970 W	
Grid Coord: X	293,254.5	(Not Required)
(Mercator) Y	1,733,405.7	(Not Required)
Zone	New York-East	(Not Required)
Elevation (Meters)	108.09	
SLD 1929 (Feet)	354.6	

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 1 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 21
 Date: 24 Aug 64

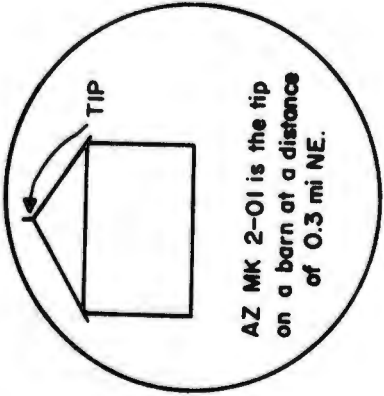
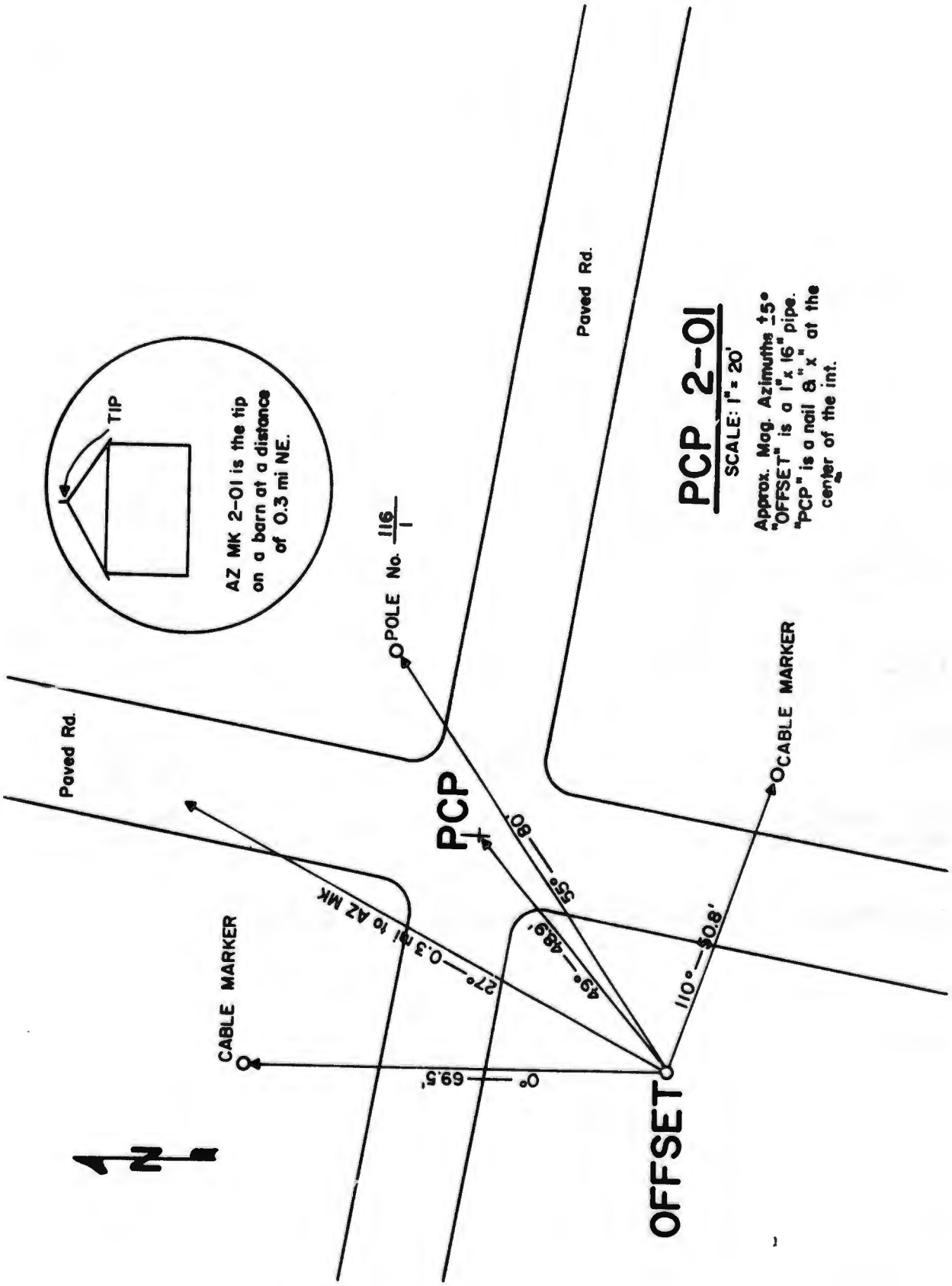
PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-01 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Ticonderoga
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	43° 54' 02" 162 N	43° 54' 01" 762 N
NAD 1927: Longitude	73° 25' 19" 104 W	73° 25' 19" 479 W
Grid Coord: X	256,985.6	259,782.5
(Mercator) Y	511,836.1	1,422,675.2
Zone	Vermont	New York-East
		(Not Required)
		(Not Required)
		(Not Required)
Elevation (Meters)	55.85	55.05
SLD 1929 (Feet)	183.2	180.6
<u>LINE</u>	<u>AZIMUTH</u>	<u>DISTANCE</u>
	<u>(from North)</u>	<u>(Feet)</u>
PCP Offset to Az. Mk. *	11° 39' 6	Not Required
PCP Offset to PCP	34° 09' 6	49.0

*Azimuth Mark Designation Az Mark (Tip at Peak of Barn)



PCP 2-01
SCALE: 1" = 20'

Approx. Mag. Azimuths 15°
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail 8" x " at the center of the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 2 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 22
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-02 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Ticonderoga
 (Scale) 1:62,500

PCP

OFFSET

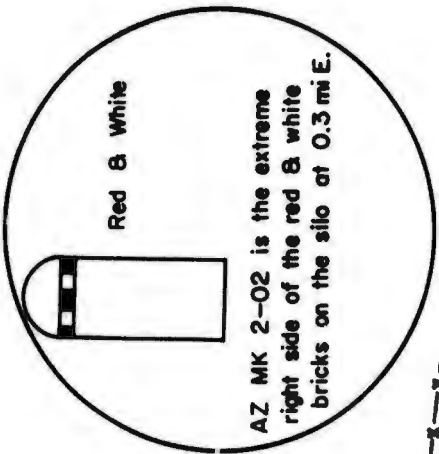
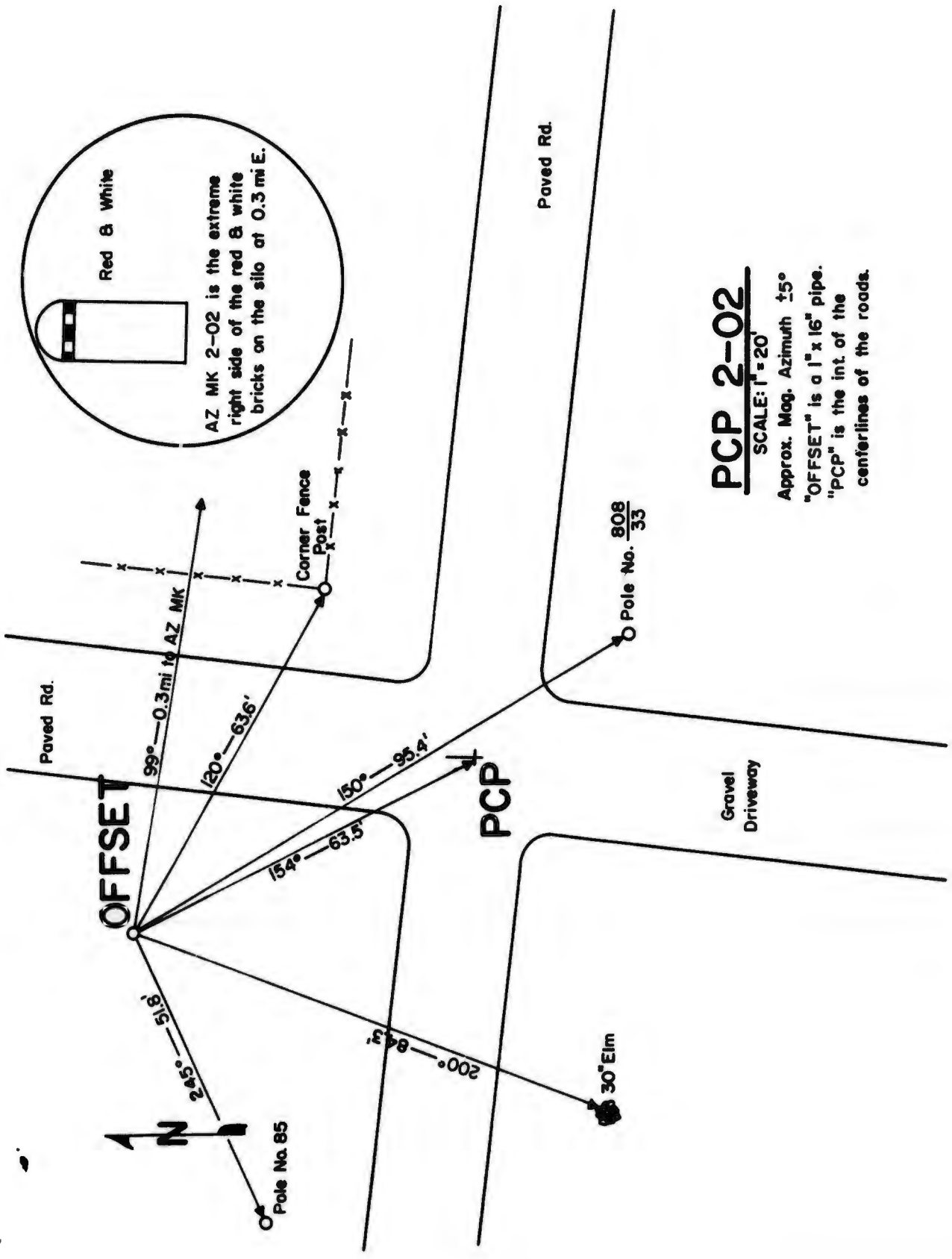
Geo. Pos. : Latitude 43° 57' 36!" 244 N 43° 57' 36!" 716 N
 NAD 1927: Longitude 73° 20' 56!" 993 W 73° 20' 57!" 565 W

Grid Coord: X 276,399.6 (Not Required)
 (Mercator) Y 533,307.5 (Not Required)
 Zone Vermont (Not Required)

Elevation (Meters) 69.86 70.11
 SLD 1929 (Feet) 229.2 230.0

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk. *	84° 33! 1	Not Required
PCP Offset to PCP	138° 48! 1	63.5

*Azimuth Mark Designation Az. Mark (Extreme Rt side of Silo)



PCP 2-02

SCALE: 1" = 20'

Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is the int. of the centerlines of the roads.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 3 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 23
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

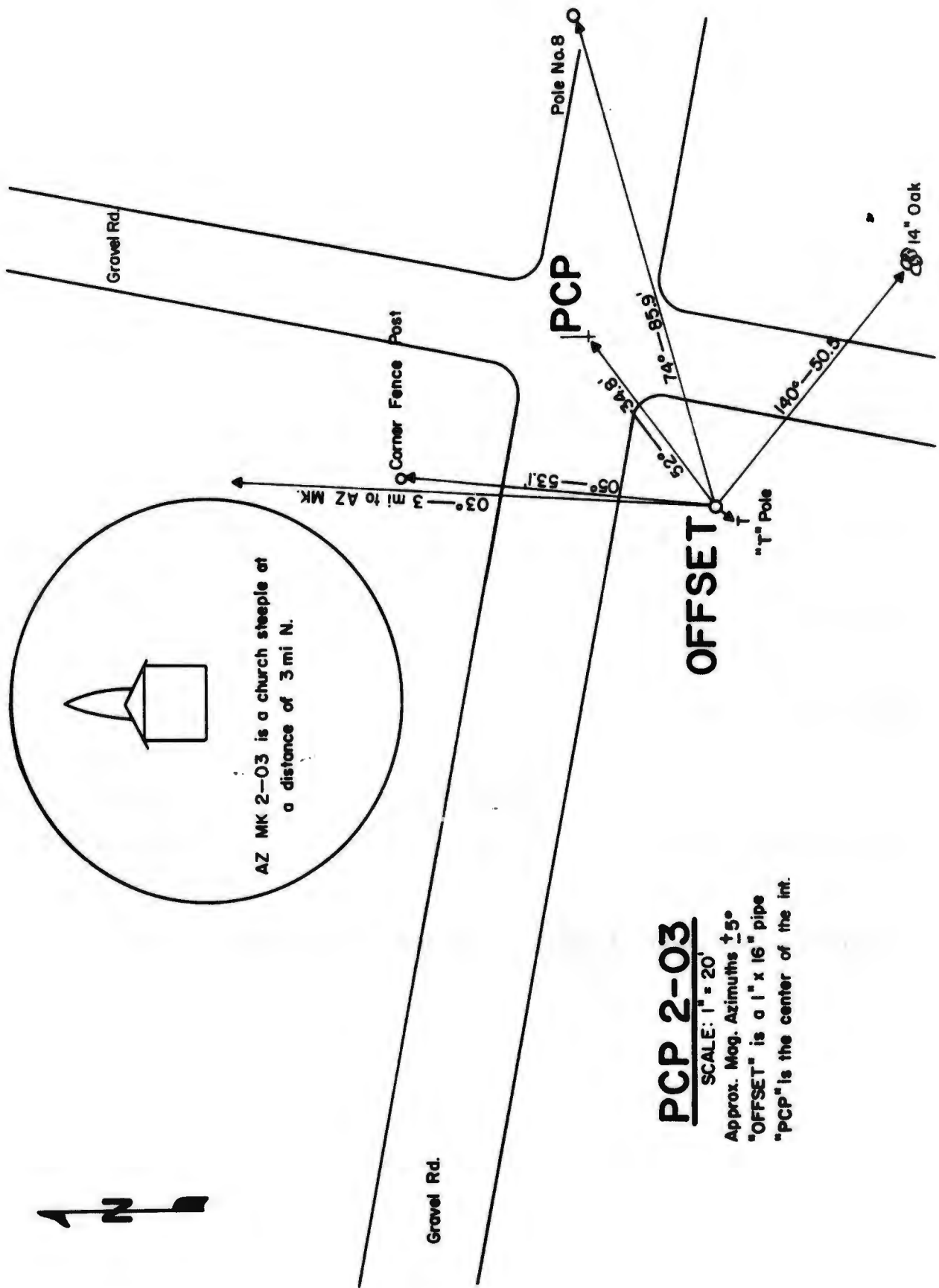
SUBRANGE: 2 PCP: 2-03 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Cornwall
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	43° 58' 07" 652 N	43° 58' 07" 379 N
NAD 1927: Longitude	73° 09' 52" 945 W	73° 09' 53" 234 W
Grid Coord: X	324, 996.3	(Not Required)
(Mercator) Y	536, 042.2	(Not Required)
Zone	Vermont	(Not Required)
Elevation (Meters)	110.52	109.35
SLD 1929 (Feet)	362.6	358.8

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk*	348° 17' 0	Not Required
PCP Offset to PCP	37° 19' 4	34.8

*Azimuth Mark Designation Az Mark (Middlebury Memorial Chapel Steeple)



PCP 2-03

SCALE: 1" = 20'

Approx. Mag. Azimuths $\pm 5^\circ$

"OFFSET" is a 1" x 16" pipe

"PCP" is the center of the int.

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-04 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Middlebury
 (Scale) 1:62,500

<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude 44° 04' 09" 323 N	44° 04' 08" 728 N
NAD 1927: Longitude 73° 08' 51" 769 W	73° 08' 52" 066 W
Grid Coord: X 329,758.0	(Not Required)
(Mercator) Y 572,628.5	(Not Required)
Zone Vermont	(Not Required)
Elevation (Meters) 88.53	88.69
SLD 1929 (Feet) 290.5	291.0

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	63° 56' 0	Not Required
PCP Offset to PCP	19° 47' 8	64.1

*Azimuth Mark Designation Az Mark (Right cupola final on Silo)

PCP 2-04

SCALE: 1" = 20'

Approx. Mag. Azimuth $\pm 5^\circ$

"OFFSET" is a 1" x 16" pipe.

"PCP" is the int. center of the two roads.

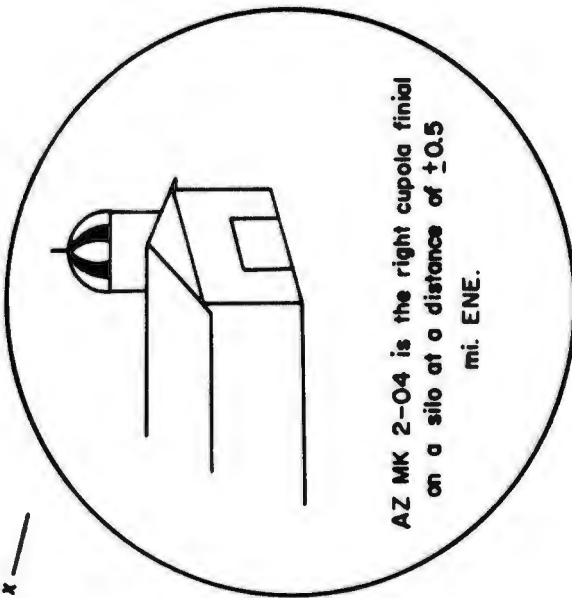
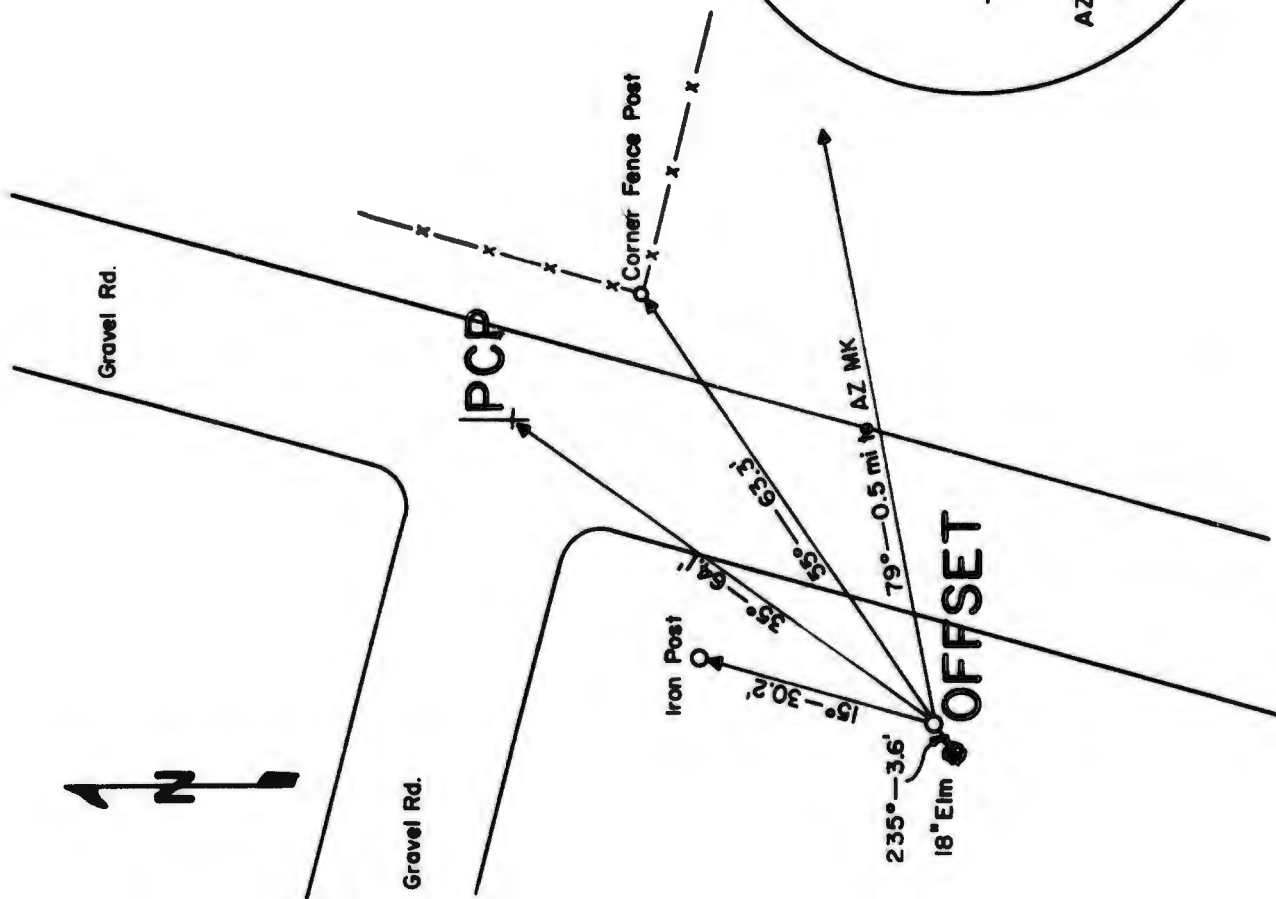


PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-05 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Port Henry
 (Scale) 1:62,500

<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude 44° 04' 34" 372 N	44° 04' 34" 568 N
NAD 1927: Longitude 73° 18' 14" 431 W	73° 18' 14" 715 W
Grid Coord: X 288,702.8	(Not Required)
(Mercator) Y 575,526.9	(Not Required)
Zone Vermont	(Not Required)
Elevation (Meters) 79.72	79.27
SLD 1929 (Feet) 261.5	260.1

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	110° 18' 5"	Not Required
PCP Offset to PCP	133° 39' 3"	28.6

*Azimuth Mark Designation Az Mark (Snake Mt. Airway Beacon)

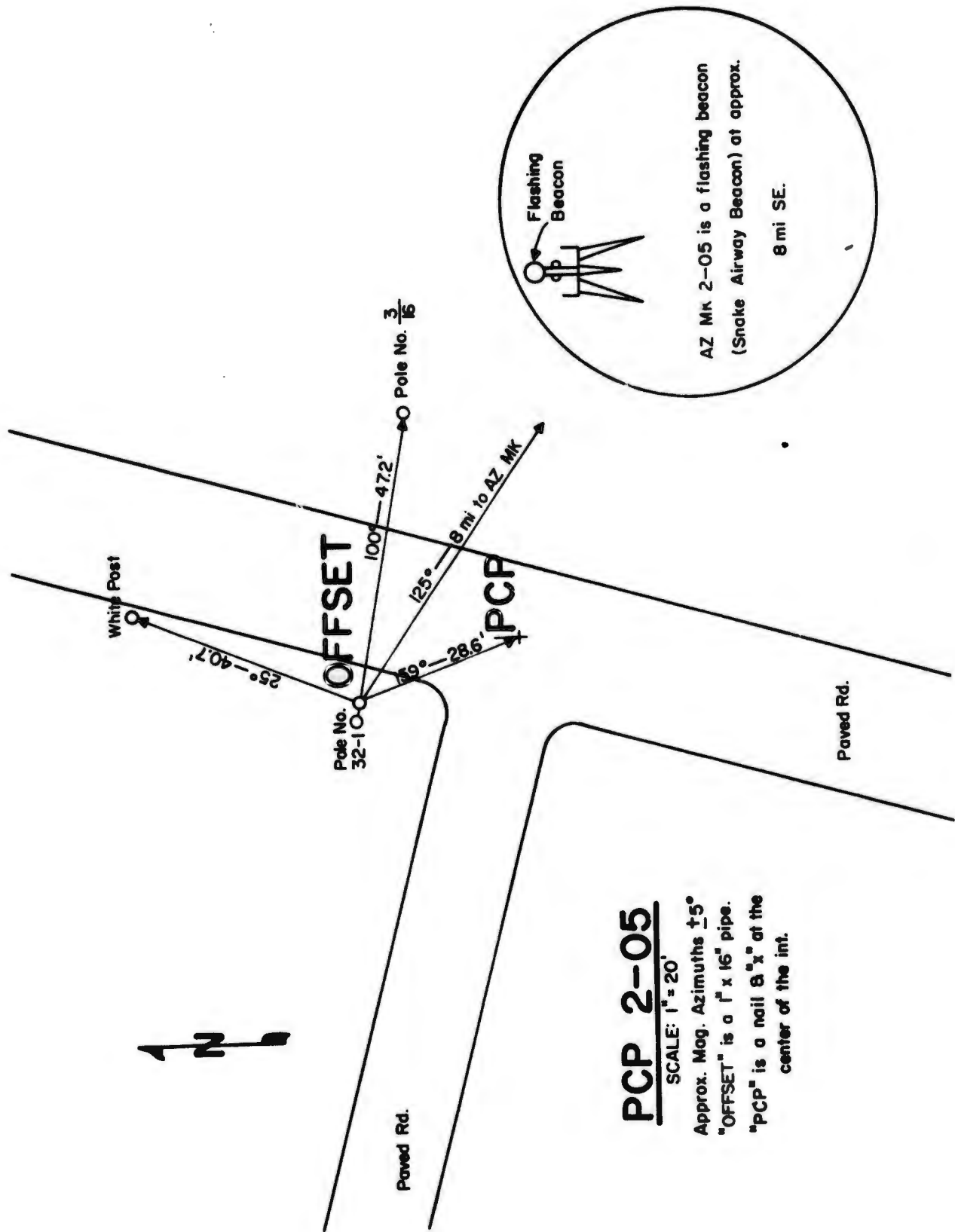


PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-06 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Port Henry
 (Scale) 1:62,500

PCP

OFFSET

Geo. Pos. : Latitude 44° 07' 51" 394 N 44° 07' 51" 580 N
 NAD 1927: Longitude 73° 18' 46" 169 73° 18' 46" 548 W

Grid Coord: X 286,583.0 (Not Required)
 (Mercator) Y 595,499.8 (Not Required)
 Zone Vermont (Not Required)

Elevation (Meters) 37.86 38.39
 SLD 1929 (Feet) 124.2 125.6

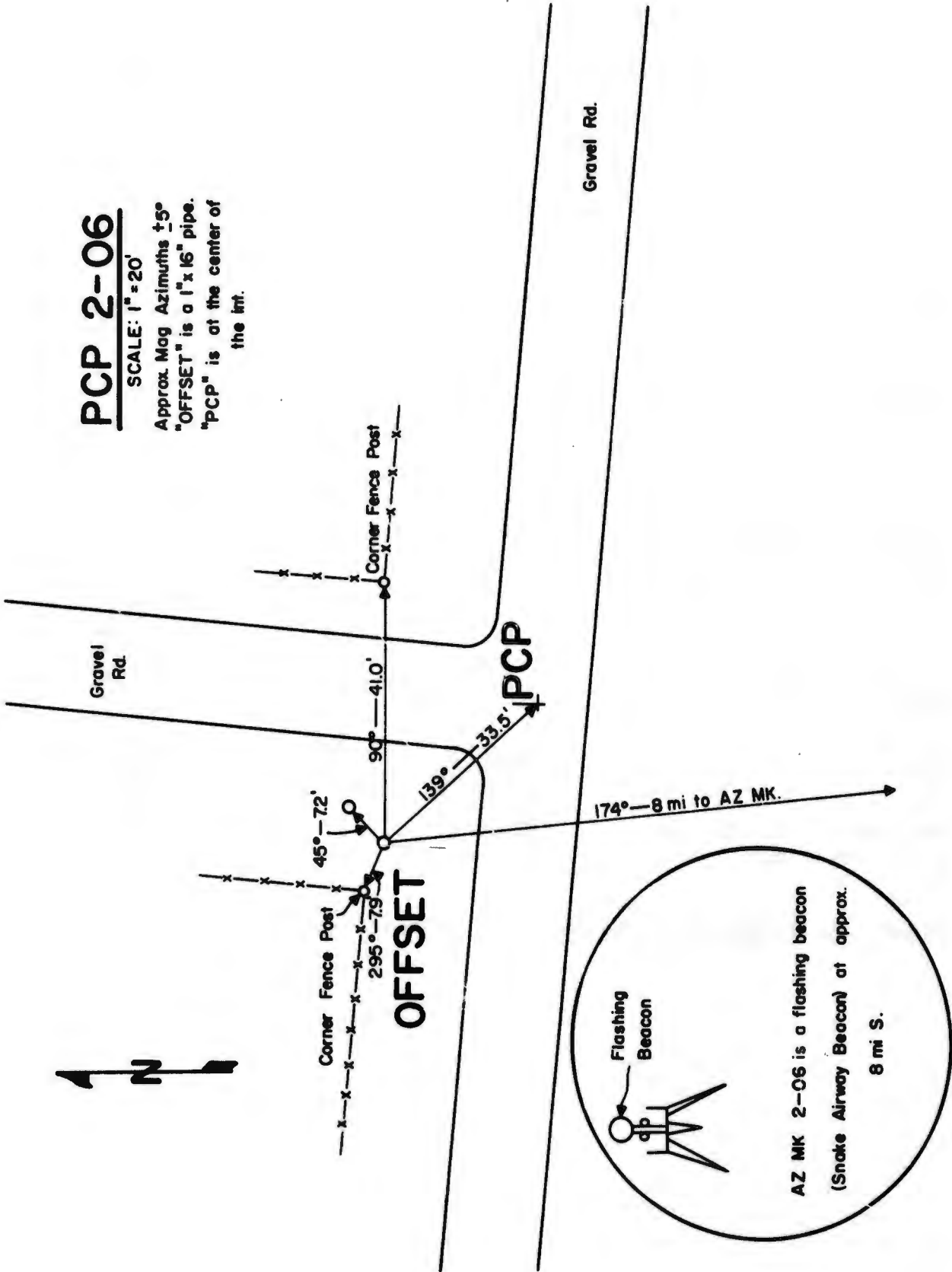
<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk*	158° 55' 6	Not Required
PCP Offset to PCP	124° 19' 3	33.5

*Azimuth Mark Designation Az Mark (Snake Mt Airway Beacon)

PCP 2-06

SCALE: 1" = 20'

Approx. Mag Azimuths $\pm 5^\circ$
"OFFSET" is a 1" x 16" pipe.
"PCP" is at the center of
the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 27
 Pg 7 of 19 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-07 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Cornwall
 (Scale) 1:24,000

PCP

Geo. Pos. : Latitude 43° 56' 33" 325 N
 NAD 1927: Longitude 73° 14' 48" 065 W

Grid Coord: X 303,326.8
 (Mercator) Y 526,675.5
 Zone Vermont

Elevation (Meters) 129.95
 SLD 1929 (Feet) 426.3

OFFSET

43° 56' 33" 672 N
73° 14' 48" 324 W

(Not Required)
 (Not Required)
 (Not Required)

129.76
425.7

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

12° 18' 2
151° 43' 2

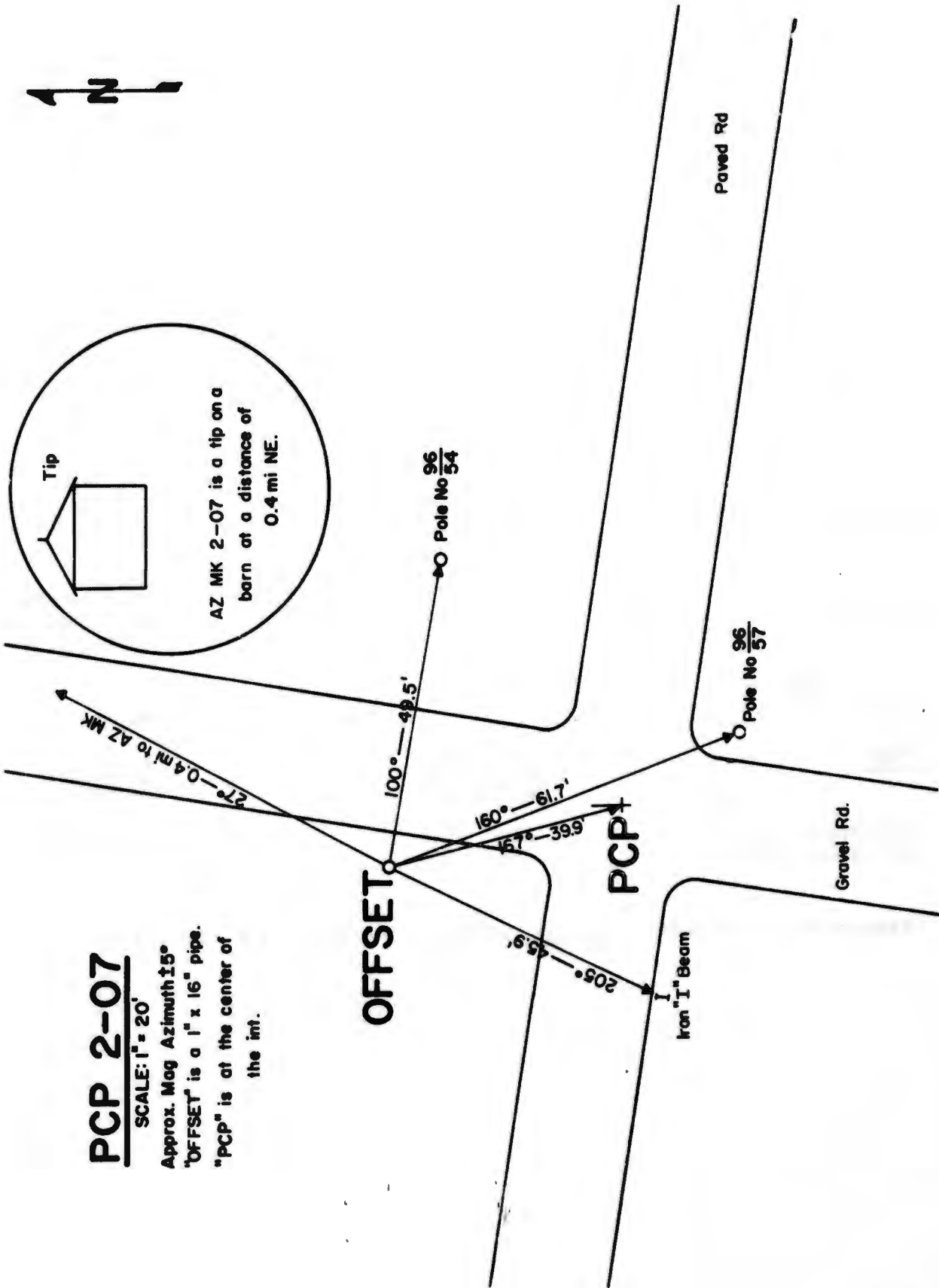
Not Required
39.9

*Azimuth Mark Designation Az Mark (Tip on Top of Barn)

PCP 2-07

SCALE: 1" = 20'

Approx. Mag Azimuth 15°
"OFFSET" is a 1" x 16" pipe.
"PCP" is at the center of
the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 8 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 28
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

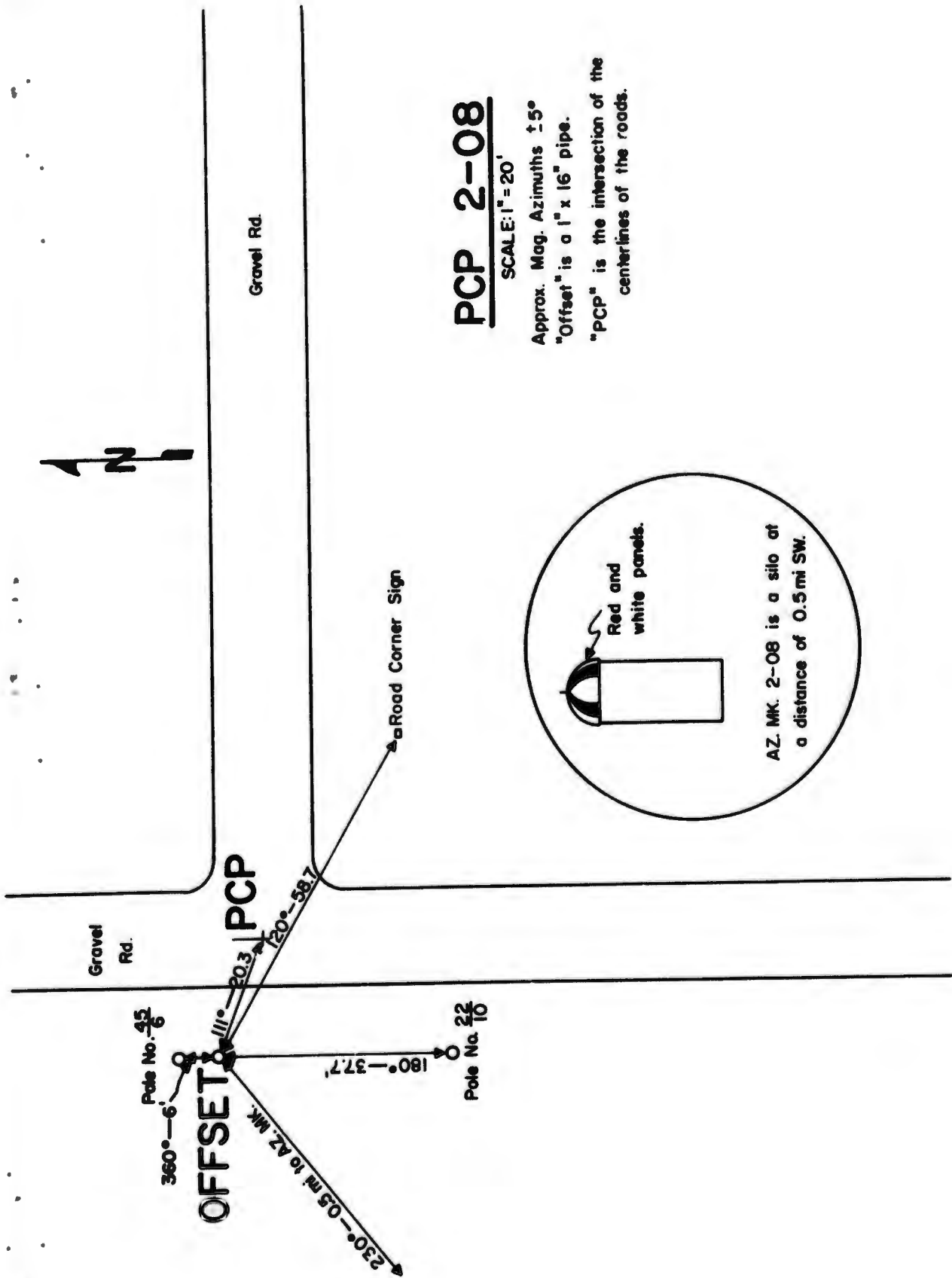
SUBRANGE: 2 PCP: 2-08 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Middlebury
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	44° 04' 14" 389 N	44° 04' 14" 411 N
NAD 1927: Longitude	73° 13' 12" 948 W	73° 13' 13" 225 W
Grid Coord: X	310,693.8	(Not Required)
(Mercator) Y	573,299.8	(Not Required)
Zone	Vermont	(Not Required)
Elevation (Meters)	73.44	73.16
SLD 1929 (Feet)	240.9	240.0

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	214° 29' 4"	Not Required
PCP Offset to PCP	96° 14' 3"	20.3

*Azimuth Mark Designation Az Mark (A silo at a distance of 0.5 Mi. SW)



PCP 2-08

SCALE: 1" = 20'

Approx. Mag. Azimuths ±5°

"Offset" is a 1" x 16" pipe.

"PCP" is the intersection of the centerlines of the roads.

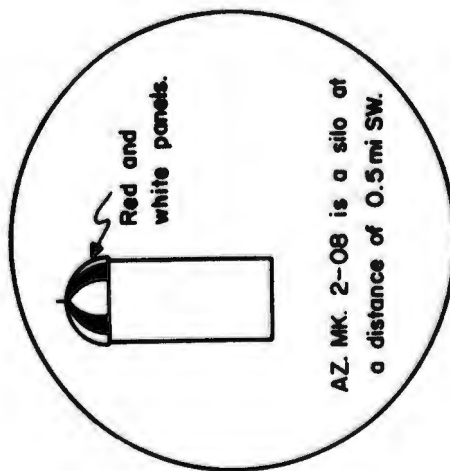


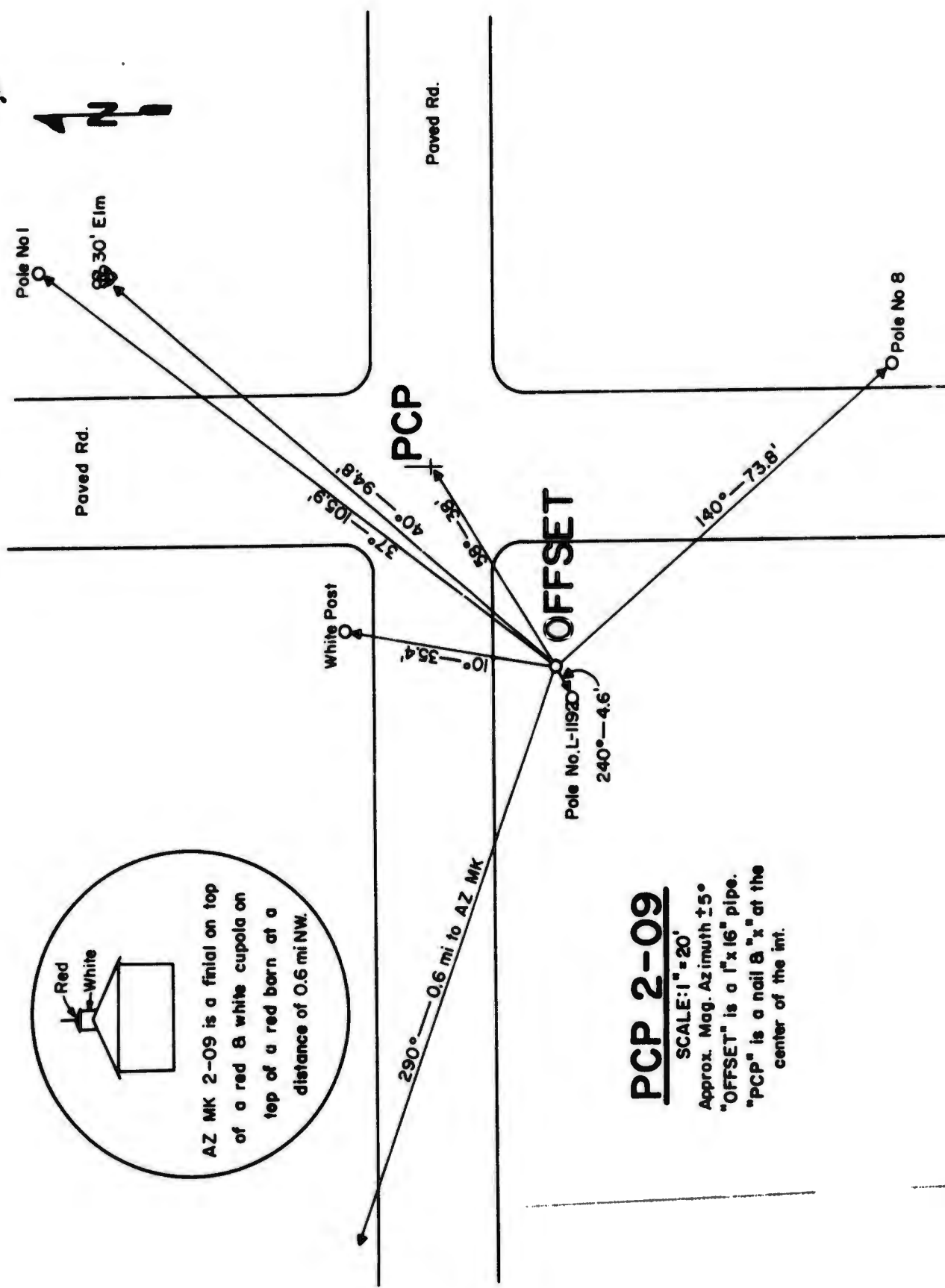
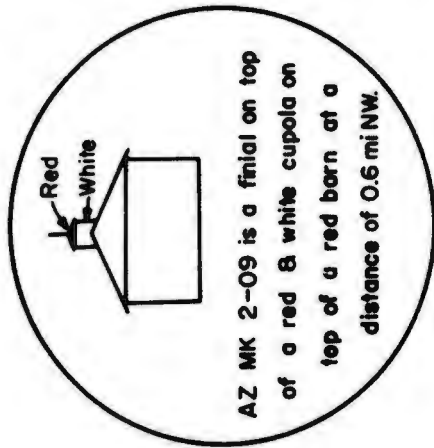
PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-09 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Middlebury
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	44° 06' 55" 389 N	44° 06' 55" 116 N
NAD 1927: Longitude	73° 12' 37" 373 W	73° 12' 37" 730 W
Grid Coord: X	313,431.8	(Not Required)
(Mercator) Y	569,579.9	(Not Required)
Zone	Vermont	(Not Required)
Elevation (Meters)	99.29	99.28
SLD 1929 (Feet)	325.8	325.7
<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	274° 44' 0	Not Required
PCP Offset to PCP	43° 14' 7	38.0

*Azimuth Mark Designation Az Mark (FINAL on top of a red barn)



PCP 2-09

SCALE: 1" = 20'
 Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail 8" x " at the center of the int.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 10 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 30
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-10 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Middlebury
 (Scale) 1:62,500

PCP

Geo. Pos.: Latitude 44° 09' 26" 868 N
 NAD 1927: Longitude 73° 11' 14" 092 W

Grid Coord: X 319,635.5
 (Mercator) Y 604,866.9
 Zone

Elevation (Meters) 88.80
 SLD 1929 (Feet) 291.3

OFFSET

44° 09' 26" 628 N
 73° 11' 13" 930 W

(Not Required)
 (Not Required)
 (Not Required)

88.53
 290.5

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

277° 15' 8
 321° 50' 2

Not Required
 30.9

*Azimuth Mark Designation Az Mark (Tip on top of a silo)



PCP 2-10

SCALE: 1" = 20'
Approx Mag Azimuths $\pm 5^\circ$
"OFFSET" is a 1" x 16" pipe.
"PCP" is the center of
the int.

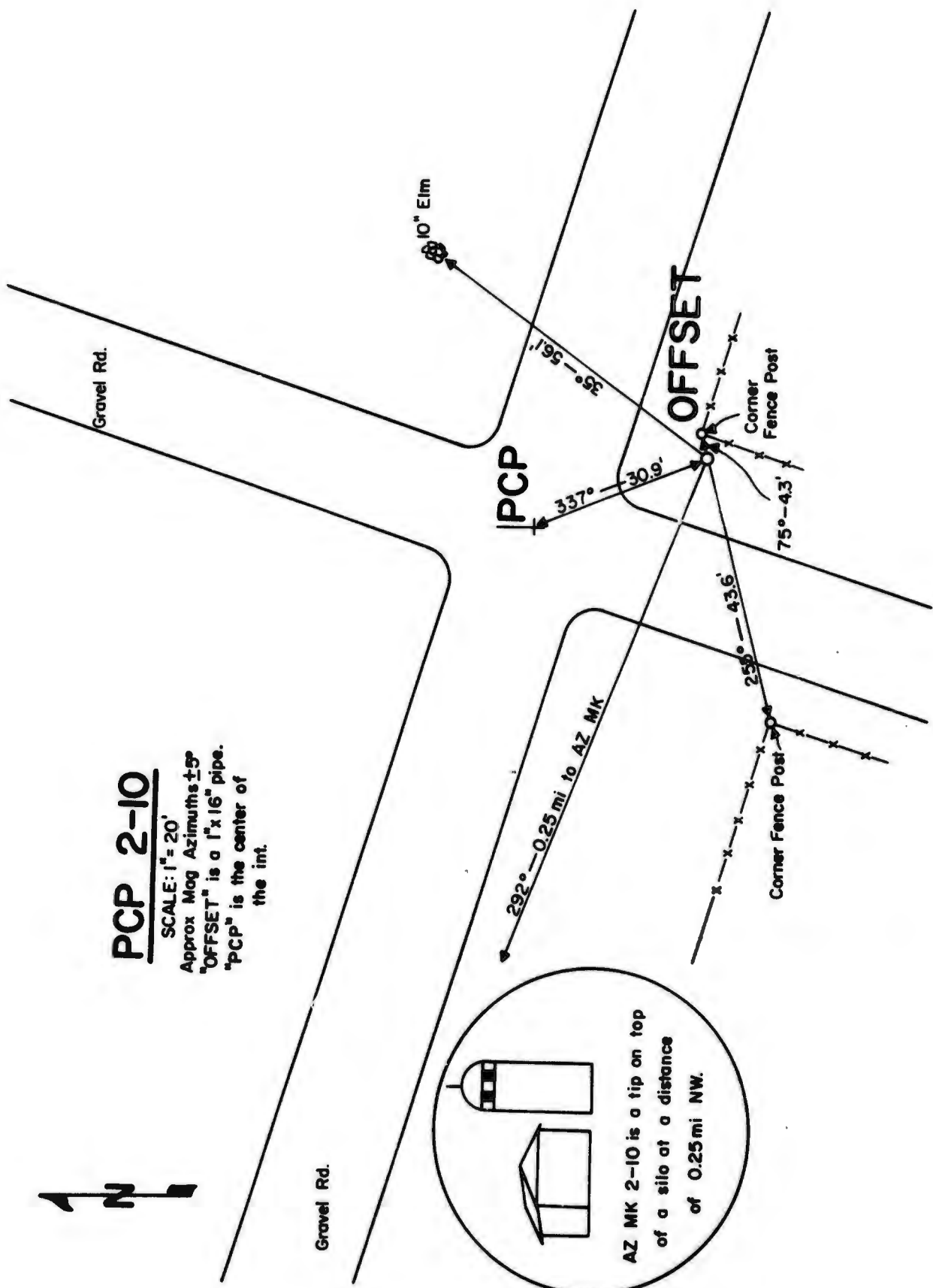


PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-11 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Bridport
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	43° 59' 49" 368 N	43° 59' 49" 038 N
NAD 1927: Longitude	73° 17' 24" 416 W	73° 17' 24" 762 W
Grid Coord: X	292,007.4	(Not Required)
(Mercator) Y	546,632.7	(Not Required)
Zone	Vermont	(Not Required)
Elevation (Meters)	87.54	87.07
SLD 1929 (Feet)	287.2	285.7
<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	17° 16' 6	Not Required
PCP Offset to PCP	37° 06' 0	41.9

*Azimuth Mark Designation Az Mark (Finial on top of a silo at approx. 0.5. M. N. E.)

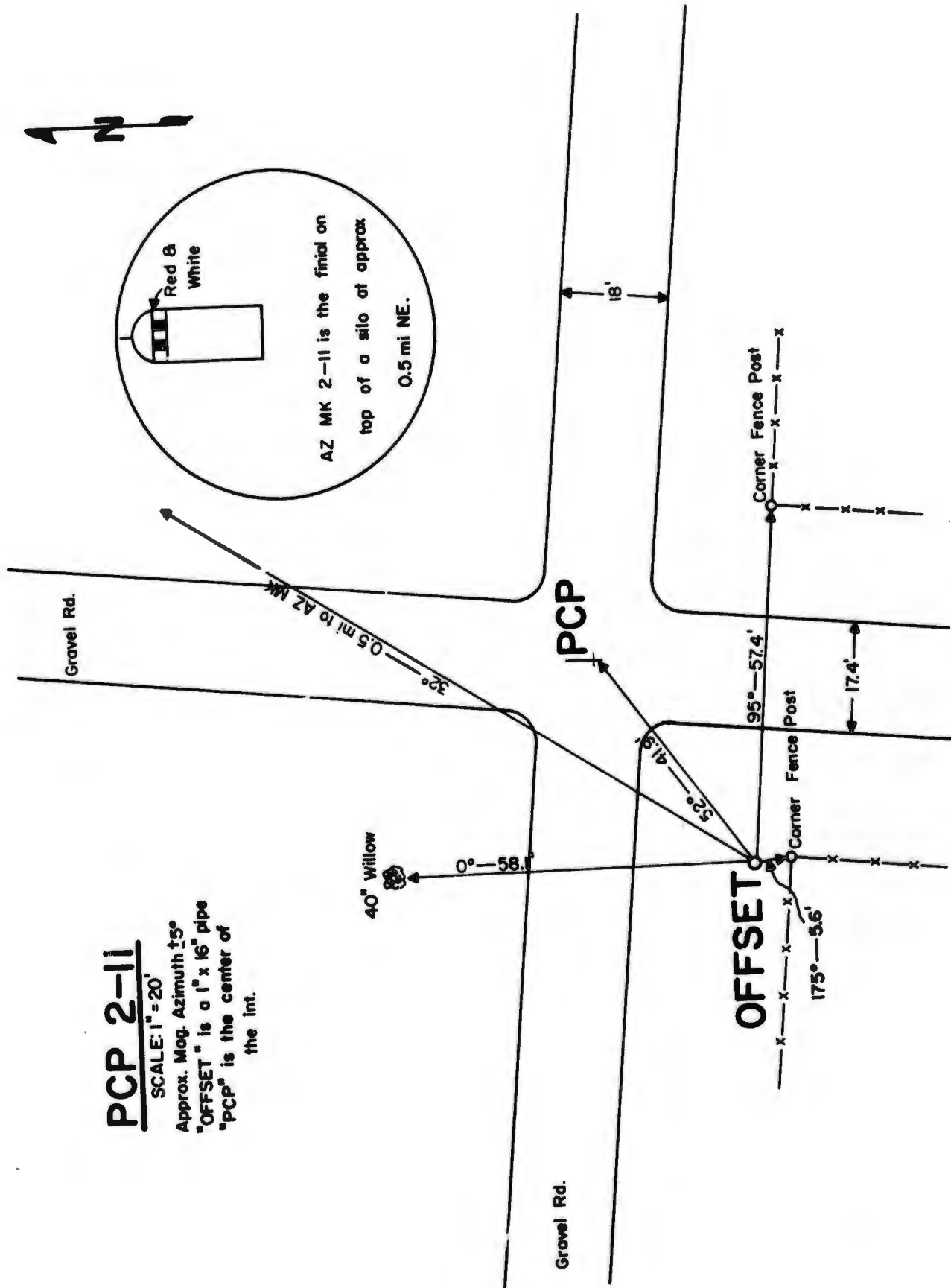
PCP 2-II

SCALE: 1" = 20'

Approx. Mag. Azimuth $\pm 5^\circ$

"OFFSET" is a 1" x 16" pipe

"PCP" is the center of the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 12 of 19 pgs
 UNITED STATES AIR FORCE Date: 24 Aug 64
 Orlando AFB, Florida

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-51 (Flying Offset) PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Port Henry
 (Scale) 1:62,500

PCP (Flying Offset)

OFFSET

Geo. Pos. : Latitude 44° 09' 27" 897 N
 NAD 1927: Longitude 73° 25' 51" 110 W

Grid Coord: X 255,700.8
 (Mercator) Y 605,600.1
 Zone Vermont

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 266.09
 SLD 1929 (Feet) 873.0

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 13 of 19 pg
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 33
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-52 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Middlebury
 (Scale) 1:62,500

PCP

OFFSET

Geo. Pos. : Latitude 44° 11' 11" 510 N
 NAD 1927: Longitude 73° 14' 29" 615 W

Grid Coord: X 305,477.2
 (Mercator) Y 615,586.8
 Zone Vermont

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 84.17
 SLD 1929 (Feet) 276.1

LINE

AZIMUTH
 (from North)

DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 14 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 34
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-53 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE (Name) Port Henry
 (Scale) 1:62,500

PCP

OFFSET

Geo. Pos.: Latitude $44^{\circ} 01' 25''$ 613 N
 NAD 1927: Longitude $73^{\circ} 25' 54.562$ W

Grid Coord: X 255,554.0 737,188.4
 (Mercator) Y 556,760.0 1,467,556.3
 Zone Vermont New York-East

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 46.98
 SLD 1929 (Feet) 154.1

LINE

AZIMUTH
 (from North)

DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 (Middlebury Offset) PCP: 2-54 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Middlebury
 (Scale) 1:62,500

PCP (Middlebury Offset)

OFFSET

Geo. Pos.: Latitude 44° 00' 59" 795 N
 NAD 1927: Longitude 73° 12' 52" 209 W

Grid Coord: X 312,037.1
 (Mercator) Y 553,583.4
 Zone Vermont

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 148.30
 SLD 1929 (Feet) 486.5

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 16 of 19 pgs
 UNITED STATES AIR FORCE Date: 24 Aug 64
 Orlando AFB, Florida

PCPDS NO. 36
 Pg 16 of 19 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 (Sissons Offset) PCP: 2-56 PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Bridport
 (Scale) 1:24,000

PCP (Sissons Offset)

OFFSET

Geo. Pos. : Latitude 43° 52' 59" 471 N
 NAD 1927: Longitude 73° 19' 49" 493 W

Grid Coord: X 281,055.0
 (Mercator) Y 505,232.3
 Zone Vermont

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 152.88
 SLD 1929 (Feet) 501.6

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

Not Required

* Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 17 of 19 pgs
 UNITED STATES AIR FORCE Date: 24 Aug 64
 Orlando AFB, Florida

PCPDS NO. 37
 Pg 17 of 19 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-57P PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Port Henry
 (Scale) 1:62,500

PCP

OFFSET

Geo. Pos. : Latitude 44° 05' 48" 687 N
 NAD 1927: Longitude 73° 22' 44" 792 W

Grid Coord: X 269,046.5
 (Mercator) Y 583,253.6
 Zone Vermont

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 61.47
 SLD 1929 (Feet) 201.7

LINE

AZIMUTH
 (from North)

DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 18 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando, AFB, Florida

PCPDS NO. 38
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-58P PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Port Henry
 (Scale) 1:52,500

PCP

OFFSET

Geo. Pos. : Latitude 44° 01' 36" 713 N
 NAD 1927: Longitude 73° 20' 27" 283 W

Grid Coord: X 278,820.9
 (Mercator) Y 557,634.3
 Zone Vermont

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 51.68
 SLD 1929 (Feet) 169.6

LINE

AZIMUTH
 (from North)

DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 19 of 19 pgs
 UNITED STATES AIR FORCE Date: 24 Aug 64
 Orlando AFB, Florida

PCPDS NO. 39
 Pg 19 of 19 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 2 PCP: 2-60 (Bristol Offset) PROJECT RADC 6512
 AF64-RAD 3

QUADRANGLE: (Name) Middlebury
 (Scale) 1:62,500

PCP (Bristol Offset)

OFFSET

Geo. Pos. : Latitude 44° 07' 57" 909 N
 NAD 1927: Longitude 73° 05' 27" 469 W

Grid Coord: X 344,840.1
 (Mercator) Y 595,662.6
 Zone Vermont

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 175.31
 SLD 1929 (Feet) 575.2

LINE

AZIMUTH
 (from North)

DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 1 of 17 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 40
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

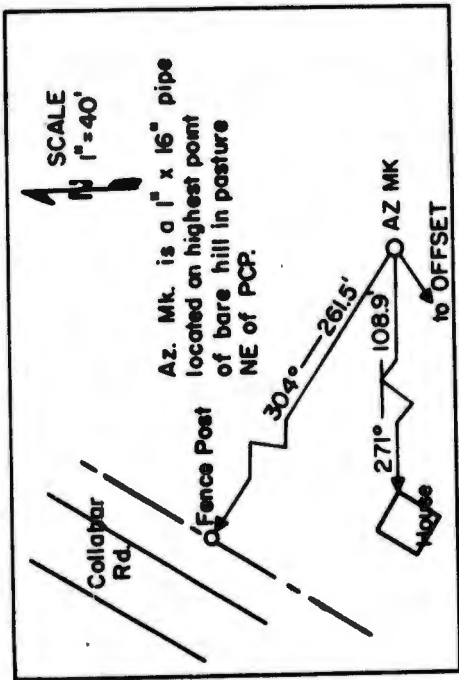
SUBRANGE: 4 PCP: 4-01 PROJECT RADC 6512
 AF64-RAD 1

QUADRANGLE: (Name) Ellenville N. Y. - Pine Bush N. Y.
 (Scale) 1:62,500 1:24,000

<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude $41^{\circ} 32' 02''.960$	$41^{\circ} 32' 03''.356$ N
NAD 1927: Longitude $74^{\circ} 19' 02''.413$	$74^{\circ} 19' 01''.938$ W
Grid Coord: X 504,379.7	(Not Required)
(Mercator) Y 558,918.7	(Not Required)
Zone New York - East	(Not Required)
Elevation (Meters) 178.79	179.38
SLD 1929 (Feet) 586.6	588.5

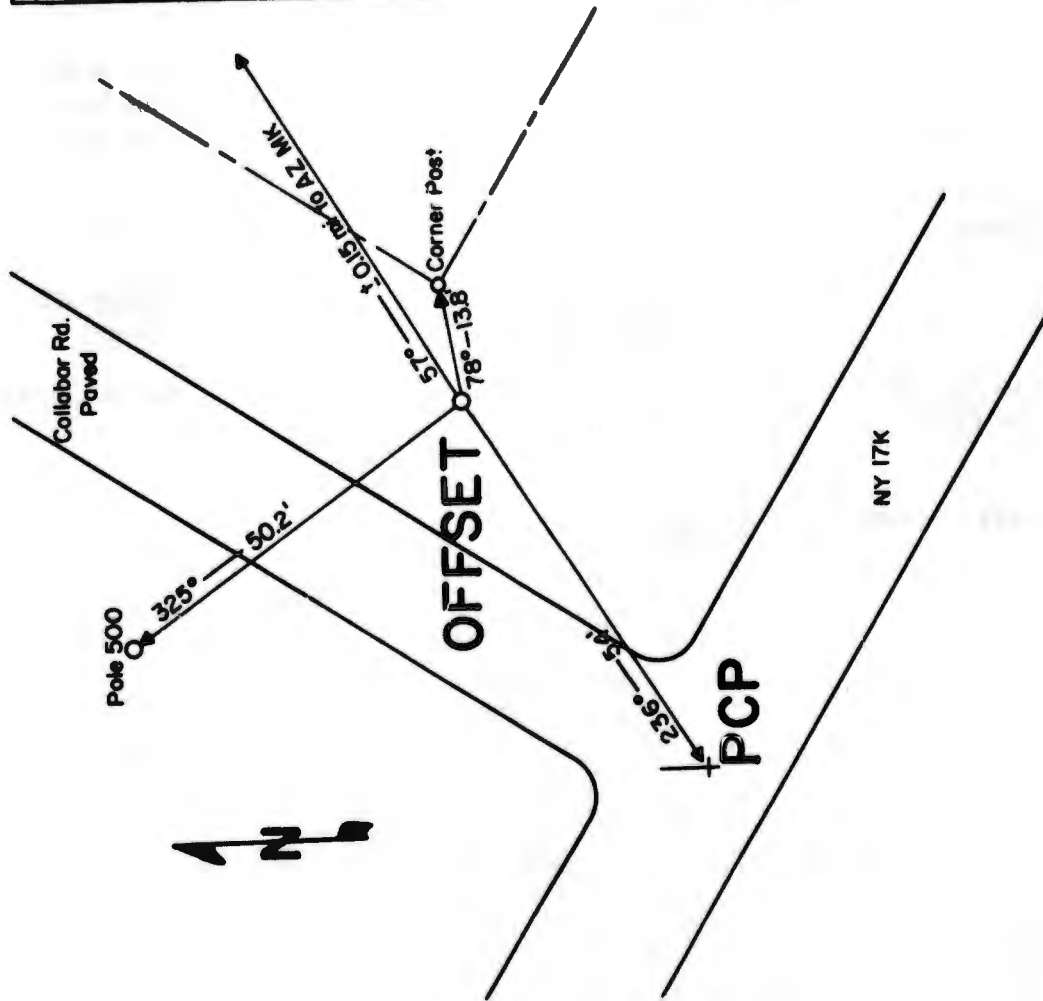
<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk. *	$43^{\circ} 03' 7$	Not Required
PCP Offset to PCP	$221^{\circ} 59' 0$	54.0

*Azimuth Mark Designation Az Mark



PCP 4-01

SCALE: 1" = 20'
 Approx. Mag Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail 8" x 8" at the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) PCPDS NO. 41
 UNITED STATES AIR FORCE Pg 2 of 17 pgs
 Orlando AFB, Florida Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 4 PCP: 4-07 PROJECT RADC 6512
 AF64-RAD 1

QUADRANGLE: (Name) Goshen N. Y. and N. J. Warwick N. Y.
 (Scale) 1:62,500 1:24,000

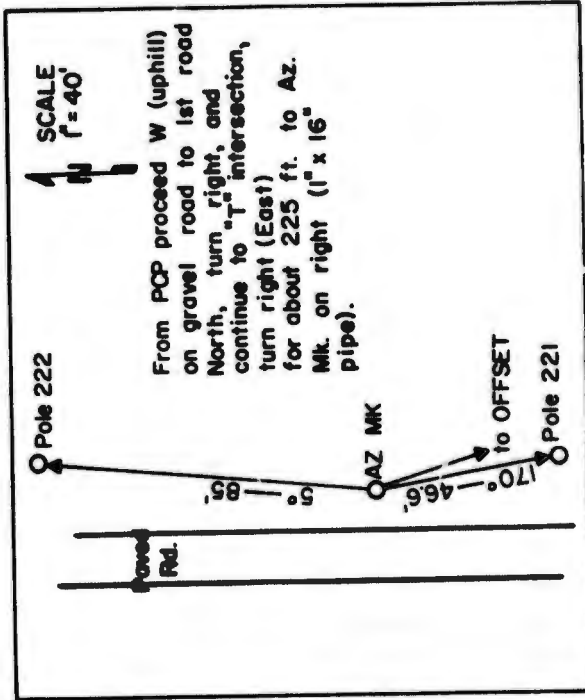
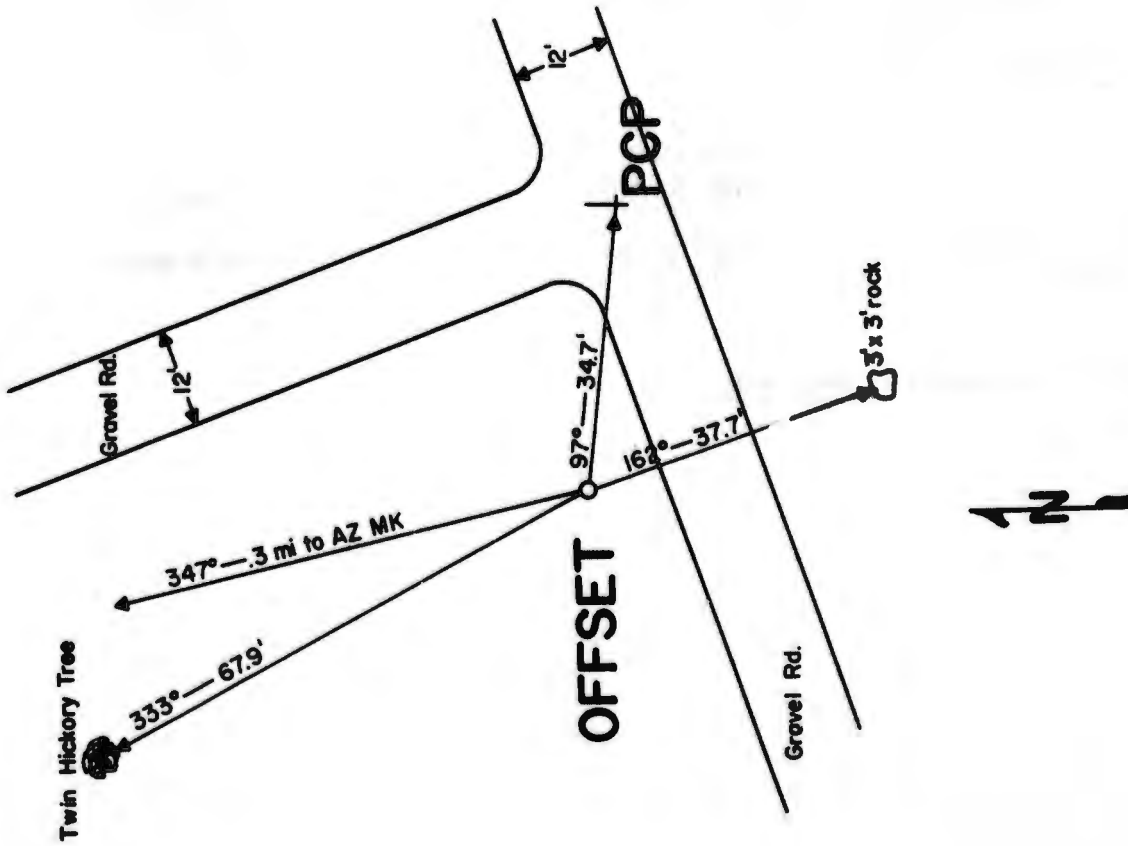
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	41° 19' 46".098 N	41° 19' 46".056 N
NAD 1927: Longitude	74° 20' 53".998	74° 20' 54".449 W
Grid Coord: X	495,880.3	(Not Required)
(Mercator) Y	484,340.2	(Not Required)
Zone	New York - East	(Not Required)
Elevation (Meters)	147.41	147.84
SLD 1929 (Feet)	483.6	485.0

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	332° 55' 3"	Not Required
PCP Offset to PCP	82° 57' 2"	34.7

*Azimuth Mark Designation Az Mark

PCP 4-07

SCALE: $r = 20'$
 Approx. Mag Azimuth $\pm 5'$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is at the center of
 the int.



From PCP proceed W (uphill) on gravel road to 1st road North, turn right, and continue to "T" intersection, turn right (East) for about 225 ft. to Az. Mk. on right (1" x 16" pipe).

SCALE
 $r = 40'$

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB Florida

PCPDS NO. 42
 Pg 3 of 17 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 4 PCP: 4-08 PROJECT RADC 6512
 AF64-RAD, 1

QUADRANGLE: (Name) Goshen N. Y. and N. J. - Warwick, N. Y.
 (Scale) 1:62,500 1:24,000

PCP

Geo. Pos. : Latitude 44° 19' 19".879 N
 NAD 1927: Longitude 74° 17' 01".235 W

Grid Coord: X 512,995.9
 (Mercator) Y 1575,036.7
 Zone New York - East

Elevation (Meters) 162.27
 SLD 1929 (Feet) 532.4

LINE

AZIMUTH
(from North)

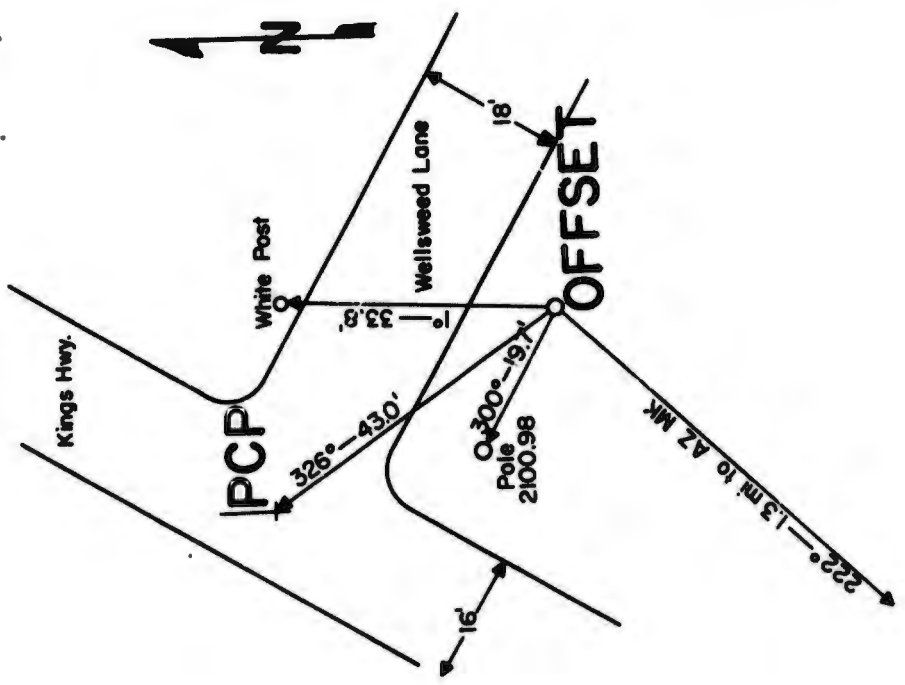
DISTANCE
(Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

208° 17' 2"
312° 24' 7"

Not Required
43.0

*Azimuth Mark Designation Az Mark



PCP 4-08

SCALE: 1" = 20'
 Approx. Mag Azimuth $\pm 3'$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail 8" x 1" at the Int.

SCALE 1" = 40'

AZ. MK. is a 1" x 16" pipe. From PCP go South on Kings Highway 1 mi. to Ridge Road on right. Turn right 3/4 mi. to AZ MK. on right.

Fence Posts 270° - 6.9'

to OFFSET 75° - 05.9'

Tel Pole 70° - 7.9'

Ridge Rd.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 4 of 17 pgs
 UNITED STATES AIR FORCE Date: 24 Aug 64
 Orlando AFB, Florida

PCPDS NO. 43
 Pg 4 of 17 pgs
 Date: 24 Aug 64

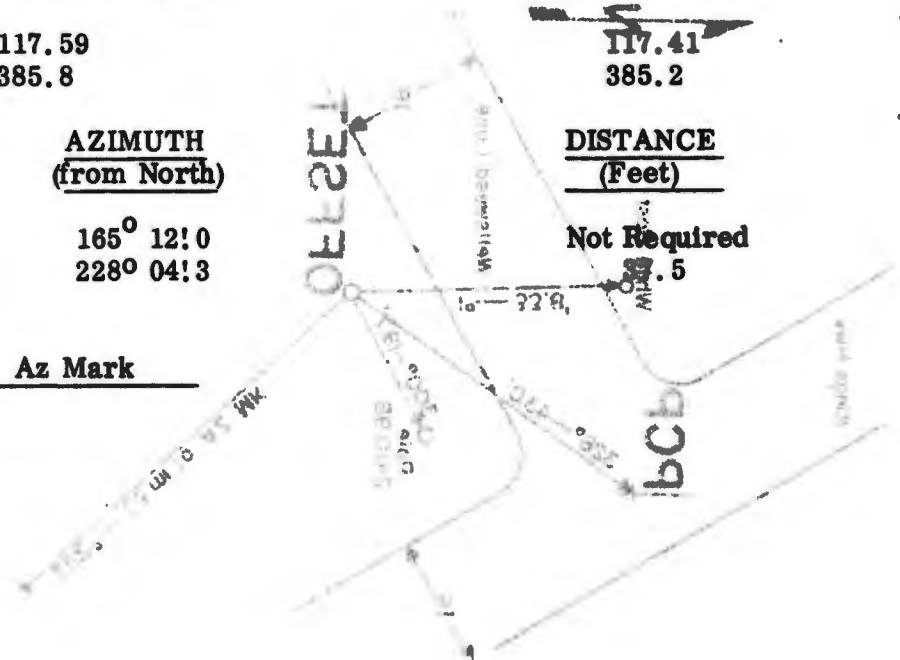
PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 4 PCP: 4-12 PROJECT RADC 6512
 AF64-RAD 1

QUADRANGLE: (Name) Goshen N. Y. and N. J.
 (Scale) 1:62,500

		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.	Latitude	41° 20' 48" 653 N	41° 20' 48" 901 N
NAD 1927:	Longitude	74° 26' 08" 122 W	74° 26' 07" 757 W
Grid Coord:	X	471,922.5	(Not Required)
(Mercator)	Y	490,687.6	(Not Required)
	Zone	New York - East	(Not Required)
Elevation (Meters)		117.59	117.41
SLD 1929 (Feet)		385.8	385.2
<u>LINE</u>	<u>AZIMUTH</u> (from North)		<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	165° 12' 0		Not Required
PCP Offset to PCP	228° 04' 3		5

*Azimuth Mark Designation Az Mark

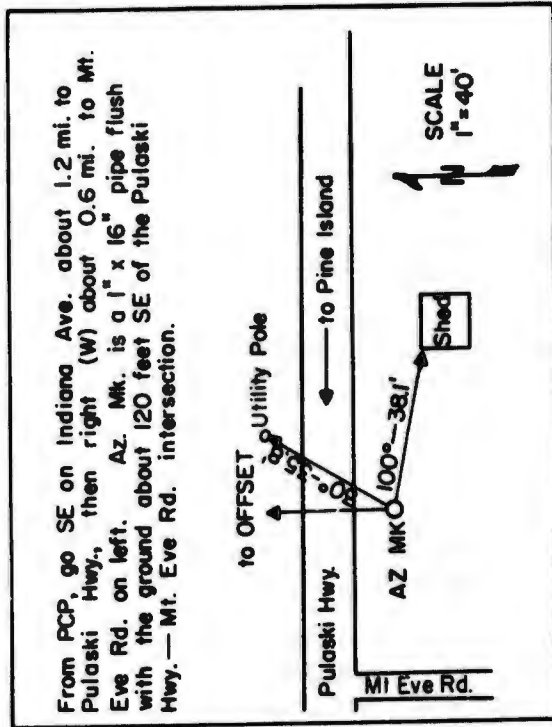
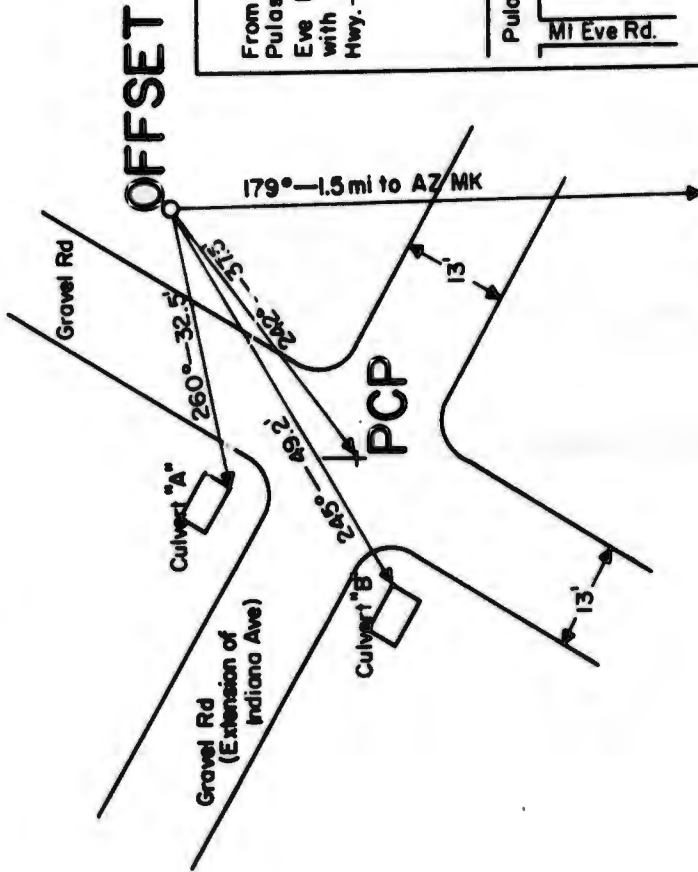


80-4-08
 151 x 16 bbs
 WSC 3-0-00-12
 FEB 50

PCP 4-12

SCALE: 1" = 20'

Approx. Mag Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is the center of the
 Int.



From PCP, go SE on Indiana Ave. about 1.2 mi. to Pulaski Hwy., then right (W) about 0.6 mi. to Mt. Eve Rd. on left. Az. Mk. is a 1" x 16" pipe flush with the ground about 120 feet SE of the Pulaski Hwy.—Mt. Eve Rd. intersection.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 44
 Pg 5 of 17 pgs
 Date: 24 Aug 64

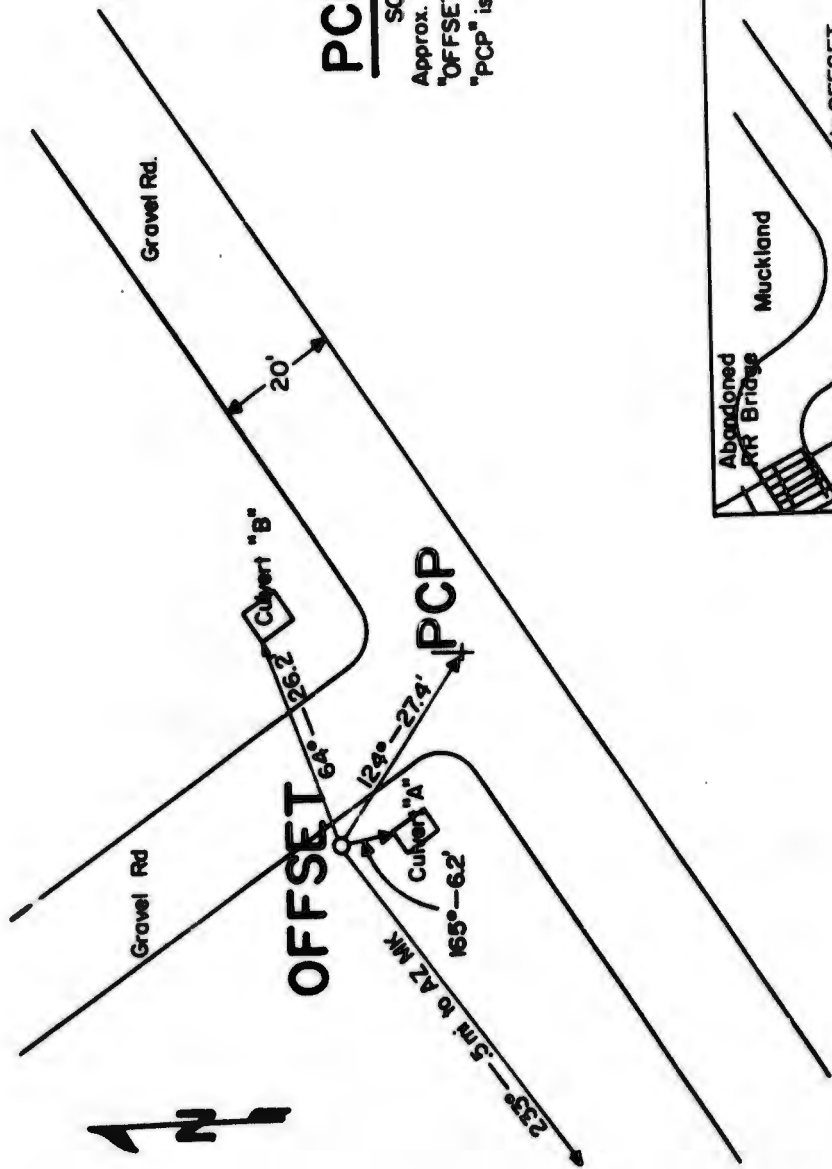
PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 4 PCP: 4-13 PROJECT RADC 6512
 AF64-RAD 1

QUADRANGLE: (Name) Goshen N. Y. and N. J.
 (Scale) 1:62,500

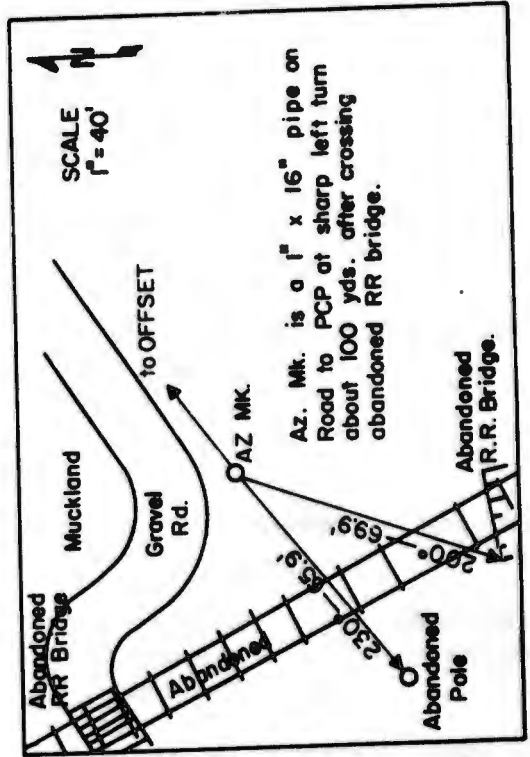
		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude		41° 18' 25".450 N	41° 18' 25".479 N
NAD 1927: Longitude		74° 27' 45".667	74° 27' 46".024 W
Grid Coord: X	464,461.0		(Not Required)
(Mercator) Y	476,204.1		(Not Required)
Zone	New York - East		(Not Required)
Elevation (Meters)	117.02		116.98
SLD 1929 (Feet)	383.9		383.8
<u>LINE</u>		<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *		218° 45' 3"	Not Required
PCP Offset to PCP		96° 03' 5"	27.4

*Azimuth Mark Designation Az Mark



PCP 4-13

SCALE: 1" = 20'
 Approx. Mag Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is at the center of
 the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 45
 Pg 6 of 17 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 4 PCP: 4-14 PROJECT RADC 6512
 AF64-RAD 1

QUADRANGLE: (Name) Goshen N. Y. and N. J.
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	41° 15' 12".769 N	41° 15' 12".460 N
NAD 1927: Longitude	74° 26' 04".914 W	74° 26' 04".905 W
Grid Coord: X	472,127.5	(Not Required)
(Mercator) Y	456,692.9	(Not Required)
Zone	New York - East	(Not Required)
Elevation (Meters)	148.58	148.82
SLD 1929 (Feet)	487.5	488.3

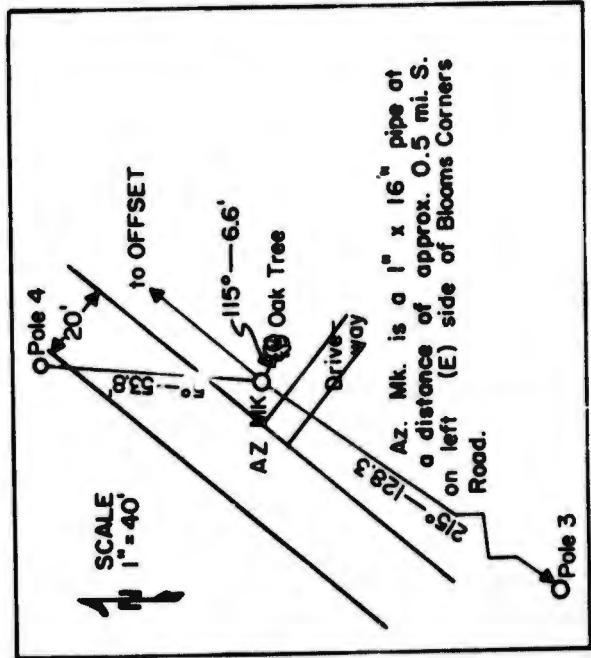
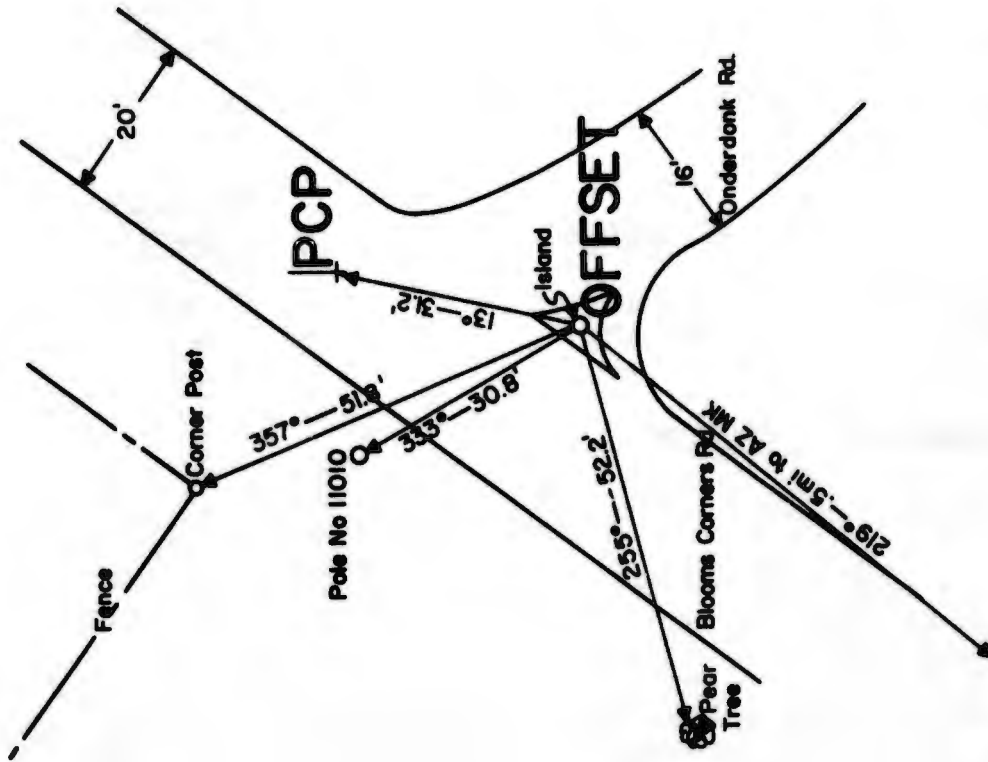
<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	205° 25' 0"	Not Required
PCP Offset to PCP	358° 40' 5"	31.2

*Azimuth Mark Designation Az Mark

PCP 4-14

SCALE: 1" = 20'

Approx. Mag. Azimuth 15°
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail 8" x 1" of the
 int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 46
 Pg 7 of 17 pgs
 Date: 24 Aug 64

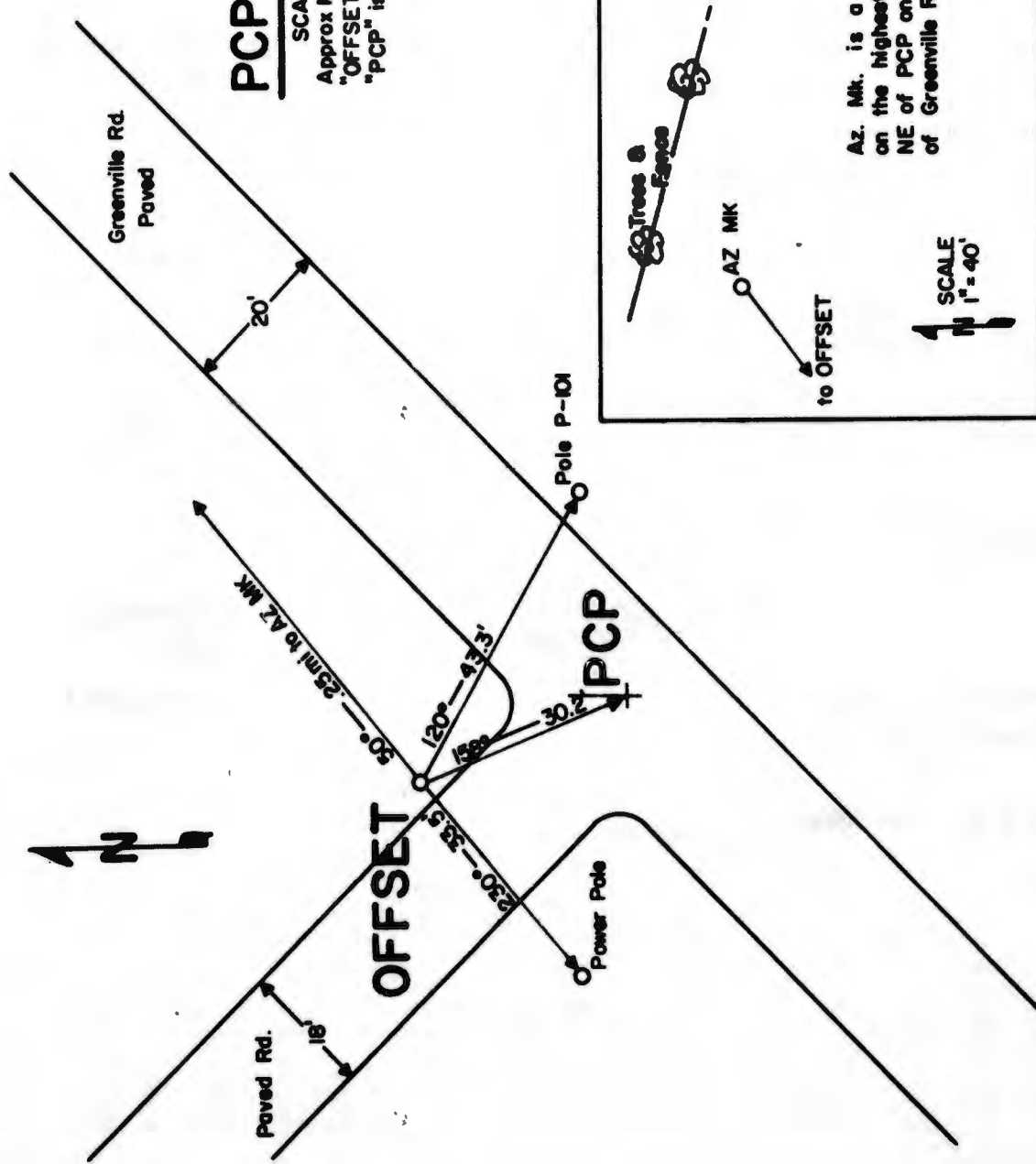
PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 4 PCP: 4-15 PROJECT RADC 6512
 AF64-RAD 1

QUADRANGLE: (Name) Hamburg N. J.
 (Scale) 1:24,000

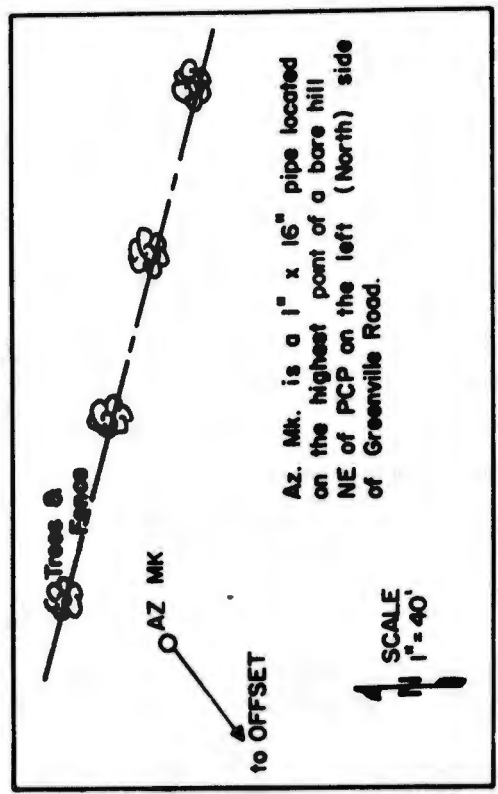
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	41° 14' 20".229 N	41° 14' 20".470 N
NAD 1927: Longitude	74° 30' 45".659 W	74° 30' 45".893 W
Grid Coord: X	450,673.0	(Not Required)
(Mercator) Y	451,410.1	(Not Required)
Zone	New York - East	(Not Required)
Elevation (Meters)	244.04	243.98
SLD 1929 (Feet)	800.7	800.5
<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	36° 10' 8"	Not Required
PCP Offset to PCP	143° 47' 1"	30.2

*Azimuth Mark Designation Az Mark



PCP 4-15

SCALE: 1" = 20'
 Approx Mag Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail 8" x " at the int.



Az. Mk. is a 1" x 16" pipe located on the highest point of a bare hill NE of PCP on the left (North) side of Greenville Road.

SCALE
 1" = 40'

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 4 PCP: 4-51 P PROJECT RADC 6512
 AF64-RAD 1

QUADRANGLE: (Name) Goshen N. Y. & N. J. -Middletown, N. J.
 (Scale) 1:62,500

		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos:	Latitude	41 ⁰ 24' 41" 381 N	
NAD 1927:	Longitude	74 ⁰ 27' 43" 237 W	
Grid Coord: X		464,702.9	(Not Required)
(Mercator) Y		514,251.6	(Not Required)
	Zone	New York, East	(Not Required)
Elevation (Meters)		193.77	
SLD 1929 (Feet)		635.7	

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
UNITED STATES AIR FORCE
Orlando AFB, Florida

PCPDS NO. 48
Pg 9 of 17 pgs
Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 4 PCP: 4-52 P PROJECT RADC 6512
AF64-RAD 1

QUADRANGLE: (Name) Goshen N. Y. & N. J.
(Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	41° 26' 35" 183 N	
NAD 1927: Longitude	74° 20' 16" 898 W	
Grid Coord: X	498,713.1	(Not Required)
(Mercator) Y	525,743.1	(Not Required)
Zone	New York-East	(Not Required)
Elevation (Meters)	164.95	
SLD 1929 (Feet)	541.2	

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 49
 Pg 10 of 17 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 4 PCP: (BORAK OFFSET) 4-53 PROJECT RADC 6512
 AF64-RAD 1
 QUADRANGLE: (Name) Goshen N. Y. & N. J.
 (Scale) 1:62,500

	<u>PCP</u>	<u>(BORAK OFFSET) OFFSET</u>
Geo. Pos. : Latitude	41° 24' 07".804 N	
NAD 1927: Longitude	74° 15' 23".700 W	
Grid Coord: X	521,056.1	(Not Required)
(Mercator) Y	510,836.4	(Not Required)
Zone	New York - East	(Not Required)
Elevation (Meters)	211.81	
SLD 1929 (Feet)	694.9	

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk. *		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 52
 Pg 13 of 17 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 4 PCP: (RYAN) 4-56 PROJECT RADC 6512
 AF64-RAD 1

QUADRANGLE: (Name) Wawayanda N.J. & N.Y. - Goshen N.J. & N.Y.
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	41° 16' 26.656	
NAD 1927: Longitude	74° 21' 58.403	
Grid Coord: X		(Not Required)
Y		(Not Required)
Zone		(Not Required)
Elevation (Meters)	262.55	
SLD 1929 (Feet)	861.4	

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk. *		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 4 (EATON OFFSET) PCP: 4-60 PROJECT RADC 6512
 AF64-RAD 1

QUADRANGLE: (Name) Port Jervis N. Y., N. J. & Pa - Otisville, N. Y.
 (Scale) 1:62,500 1:24,000

	<u>PCP (EATON OFFSET)</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	41° 23' 47" 225 N	
NAD 1927: Longitude	74° 33' 23" 264 W	
Grid Coord: X	438,779.8	(Not Required)
(Mercator) Y	508,823.1	(Not Required)
Zone	New York - East	(Not Required)
Elevation (Meters)	274.70	
SLD 19.9 (Feet)	901.2	

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk. *		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 54
 Pg 15 of 17 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 4 PCP: (Sawyer Offset) 4-61 PROJECT RADDC 6512
 AF64-RAD 1

QUADRANGLE: (Name) Goshen N. Y. and N. J.
 (Scale) 1:62,500

	<u>PCP (Sawyer Offset)</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	41° 22' 11".065 N	
NAD 1927: Longitude	74° 22' 41".149 W	
Grid Coord: X	487,713.1	(Not Required)
(Mercator) Y	499,015.0	(Not Required)
Zone	New York - East	(Not Required)
Elevation (Meters)	182.13	
SLD 1929 (Feet)	597.5	

<u>LINE</u>	<u>AZIMUTH (from North)</u>	<u>DISTANCE (Feet)</u>
PCP Offset to Az. Mk. *		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 55
 Pg 16 of 17 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 4 PCP: 4-62 (Taylor Offset) PROJECT RADC 6512
 AF64-RAD 1

QUADRANGLE: (Name) Greenwood Lake N. J. and N. Y. - Greenwood Lake N. J.
 and N. Y.
 (Scale) 1:62,500 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	41° 12' 31".068 N	
NAD 1927: Longitude	74° 21' 26".163 W	
Grid Coord: X	493,414.3	(Not Required)
(Mercator) Y	440,312.3	(Not Required)
Zone	New York - East	(Not Required)
Elevation (Meters)	445.92	
SLD 1929 (Feet)	1463.0	

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk. *		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 56
 Pg 17 of 17 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 4 PCP: 4-63 PROJECT RADC 6512
 AF64-RAD 1

QUADRANGLE: (Name) Schune Munk N. Y. - Monroe N. Y.
 (Scale) 1:62,500 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	41 ⁰ 20' 34".869 N	
NAD 1927: Longitude	74 ⁰ 11' 19".456 W	
Grid Coord: X	539,705.4	(Not Required)
(Mercator) Y	489,309.0	(Not Required)
Zone	New York - East	(Not Required)
Elevation (Meters)	194.08	
SLD 1929 (Feet)	636.7	

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk. *		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) PCPDS NO. 57
 UNITED STATES AIR FORCE Pg 1 of 24 pgs
 Orlando AFB, Florida Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 PCP: 5-03 PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Sunbury
 (Scale) 1:62500

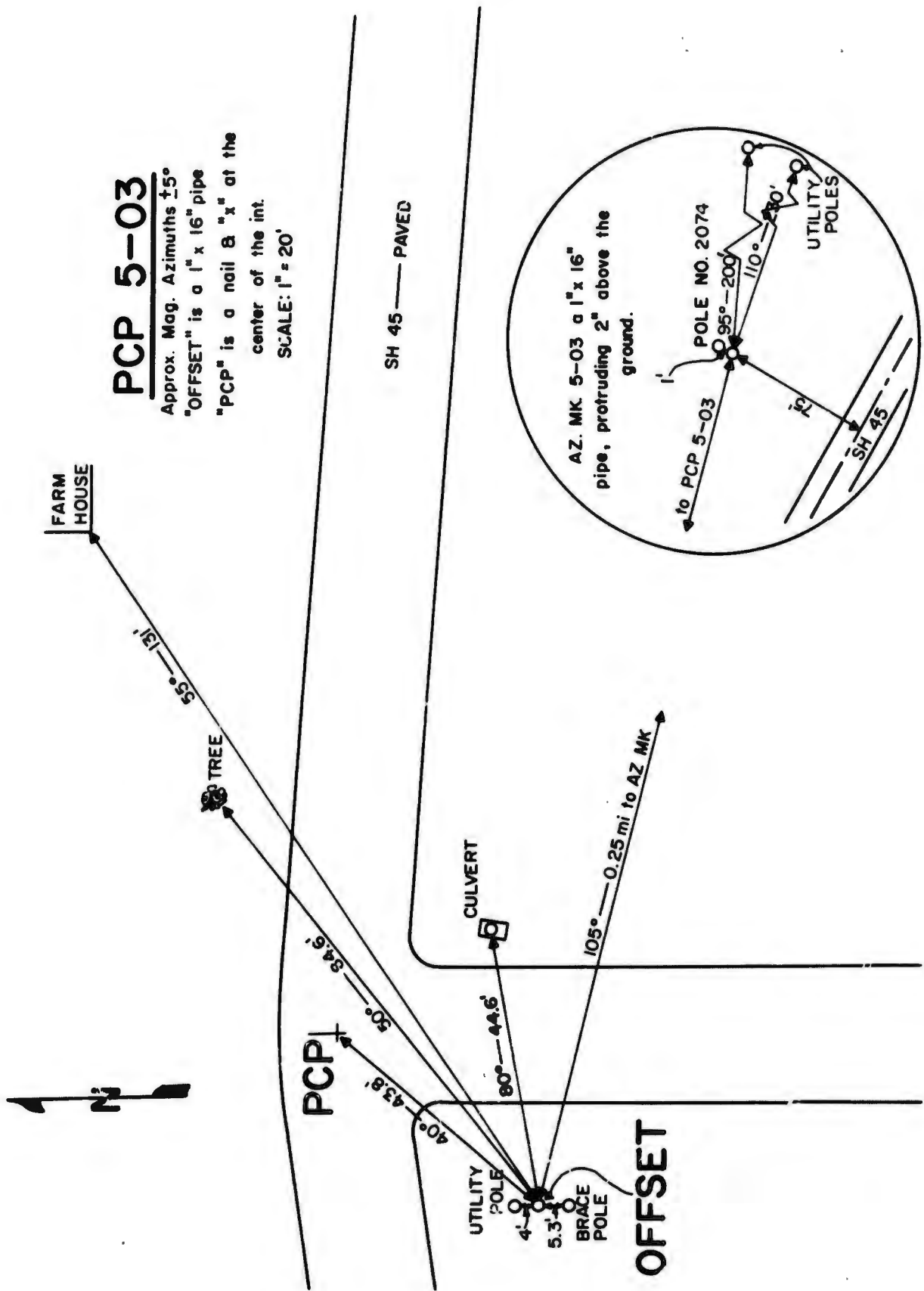
<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude 40° 58' 40" 937 N	40° 58' 40" 583 N
NAD 1927: Longitude 76° 46' 41" 516 W	76° 46' 41" 843 W
Grid Coord: X 2,268,336.5	(Not Required)
(Lambert) Y 297,122.8	(Not Required)
Zone PENN-NORTH	(Not Required)
Elevation (Meters) 159.35	159.72
SLD 1929 (Feet) 522.8	524.0

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	100° 14' 8"	Not Required
PCP Offset to PCP	34° 57' 6"	43.7

* Azimuth Mark Designation 5-03 C

PCP 5-03

Approx. Mag. Azimuths $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe
 "PCP" is a nail 8 "x" at the
 center of the int.
 SCALE: 1" = 20'



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 58
 Pg 2 of 24 pgs
 Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 PCP: 5-04 PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Sunbury
 (Scale) 1:62500

PCP

OFFSET

Geo. Pos. : Latitude 40° 55' 10" 328 N
 NAD 1927: Longitude 76° 48' 59" 350 W

40° 55' 10" 001 N
 76° 48' 59" 322 W

Grid Coord: X 2,257,994.8
 (Lambert) Y 275,693.1
 Zone PENN-NORTH

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 204.50
 SLD 1929 (Feet) 670.9

204.67
 671.5

LINE

AZIMUTH
 (from North)

DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

182° 21' 7
 356° 22' 9

Not Required
 33.2

*Azimuth Mark Designation Az Mark

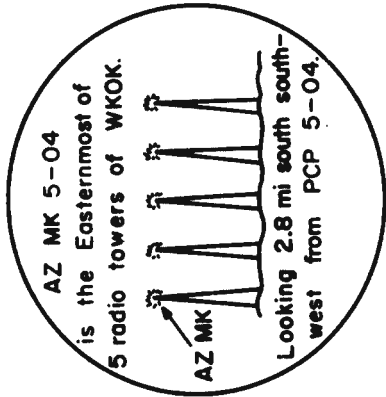
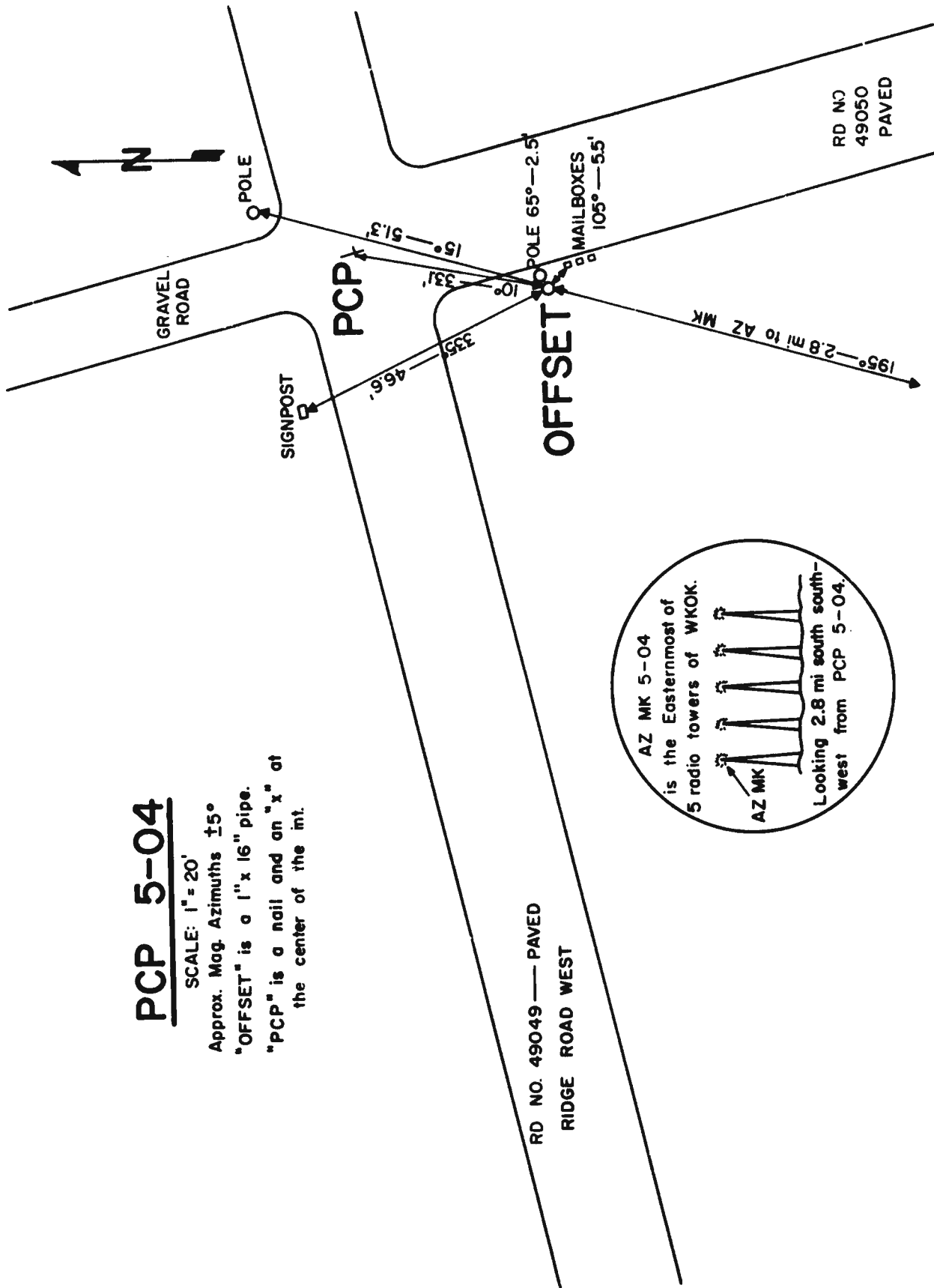
PCP 5-04

SCALE: 1" = 20'

Approx. Mag. Azimuths $\pm 5^\circ$

"OFFSET" is a 1" x 16" pipe.

"PCP" is a nail and an "x" at the center of the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 59
 Pg 3 of 24 pgs
 Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 PCP: 5-08 PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Milton
 (Scale) 1:62500

PCP

OFFSET

Geo. Pos. : Latitude 40° 57' 13" 580 N
 NAD 1927: Longitude 76° 55' 48" 045 W

40° 57' 13" 061 N
 76° 55' 48" 315 W

Grid Coord: X 2,226,502.4
 (Lambert) Y 287,848.6
 Zone PENN-NORTH

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 151.95
 SLD 1929 (Feet) 498.5

152.82
 501.4

LINE

AZIMUTH
 (from North)

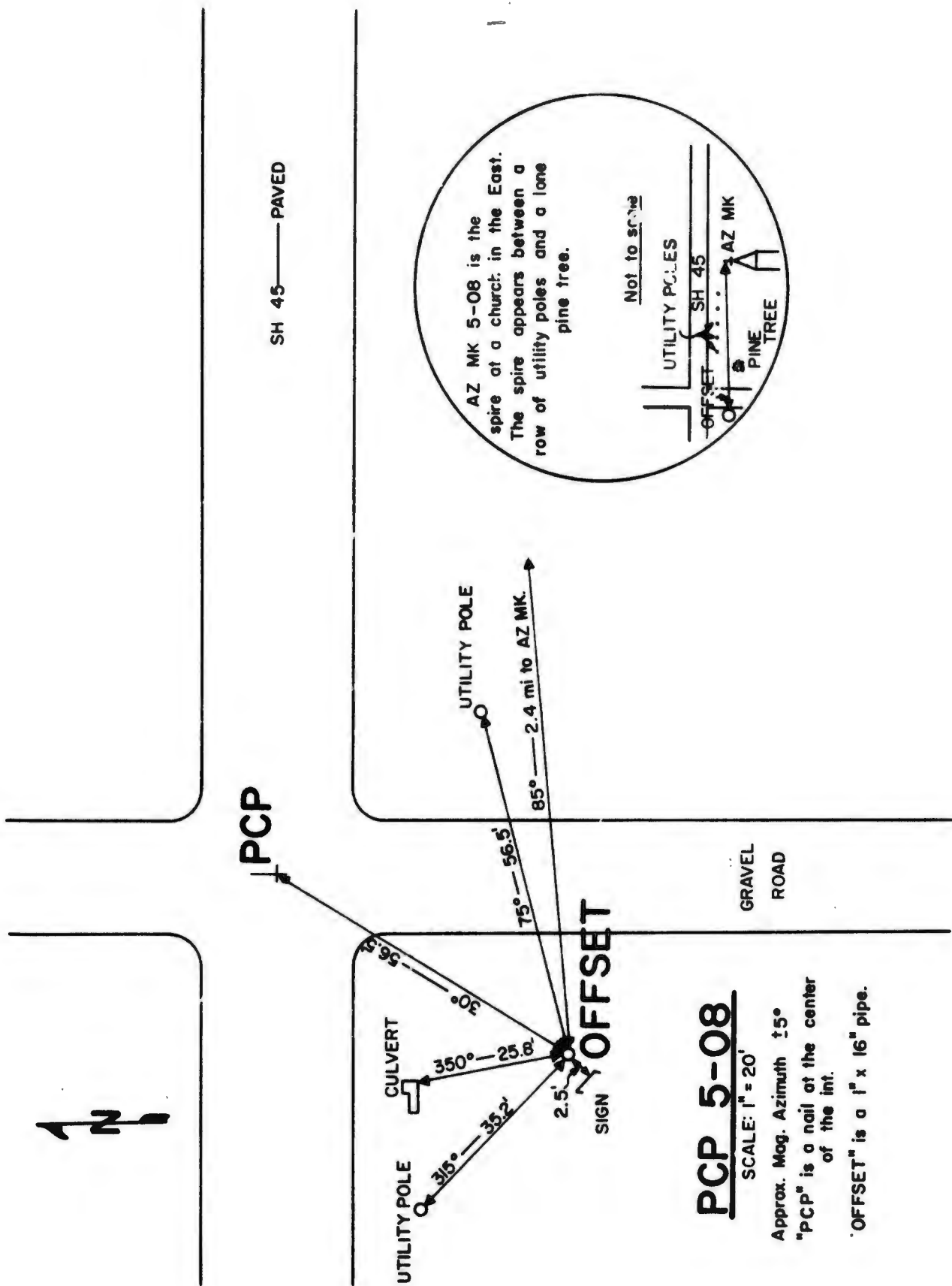
DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

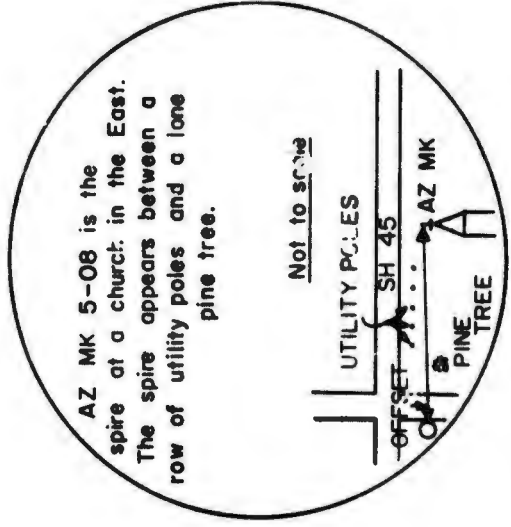
74° 48' 8
 21° 32' 9

Not Required
 56.5

*Azimuth Mark Designation Lewisburg First Baptist Church Spire.



SH 45 — PAVED



AZ MK 5-08 is the spire at a church in the East. The spire appears between a row of utility poles and a lone pine tree.

PCP 5-08

SCALE: 1" = 20'

- Approx. Mag. Azimuth ±5°
- "PCP" is a nail at the center of the int.
- "OFFSET" is a 1" x 16" pipe.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 60
 Pg 4 of 24 pgs
 Date: 20 Aug 64

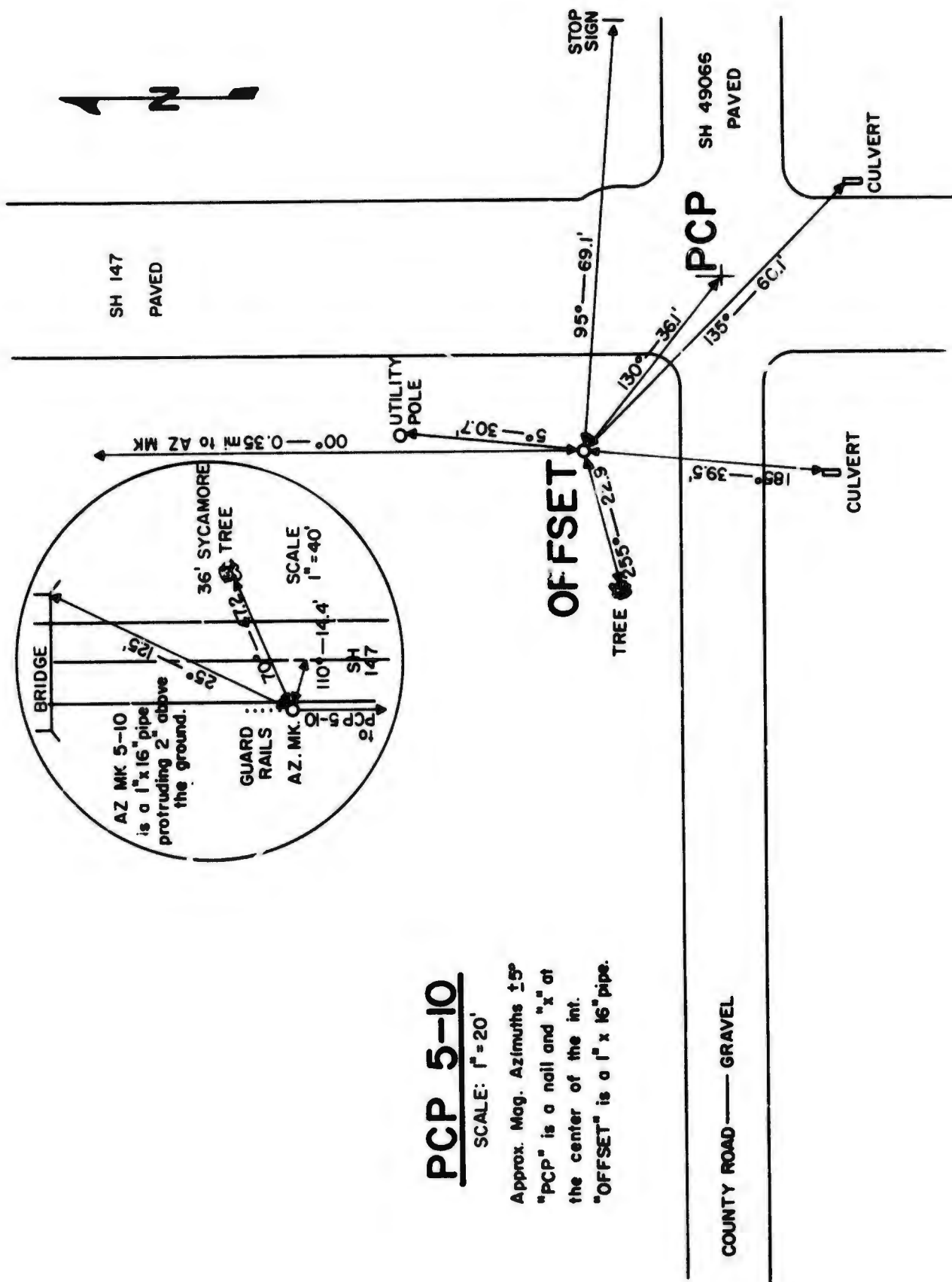
PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 PCP: 5-10 PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Milton
 (Scale) 1:62500

		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. :	Latitude	41° 07' 49" 204 N	41° 07' 49" 394 N
NAD 1927:	Longitude	76° 47' 44" 937 W	76° 47' 45" 335 W
Grid Coord: X		2,262,861.0	(Not Required)
(Lambert) Y		352,552.7	(Not Required)
	Zone	PENN-NORTH	(Not Required)
Elevation (Meters)		174.98	175.80
SLD 1929 (Feet)		574.1	576.8
<u>LINE</u>		<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *		352° 21' 4"	Not Required
PCP Offset to PCP		122° 21' 9"	36.1

*Azimuth Mark Designation Az Mark



PCP 5-10

SCALE: 1" = 20'

Approx. Mag. Azimuths $\pm 5^\circ$

"PCP" is a nail and "x" at the center of the int.

"OFFSET" is a 1" x 16" pipe.

COUNTY ROAD ——— GRAVEL

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) PCPDS NO. 61
 UNITED STATES AIR FORCE Pg 5 of 24 pgs
 Orlando AFB, Florida Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 PCP: 5-12 PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Shamokin
 (Scale) 1:62500

PCP

OFFSET

Geo. Pos. : Latitude 40° 54' 41" 314 N
 NAD 1927: Longitude 76° 39' 49" 070 W

40° 54' 41" 023 N
 76° 39' 49" 458 W

Grid Coord: X 2,300,274.1
 (Lambert) Y 273,249.6
 Zone PENN-NORTH

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 260.20
 SLD 1929 (Feet) 853.7

260.15
 853.5

LINE

AZIMUTH
 (from North)

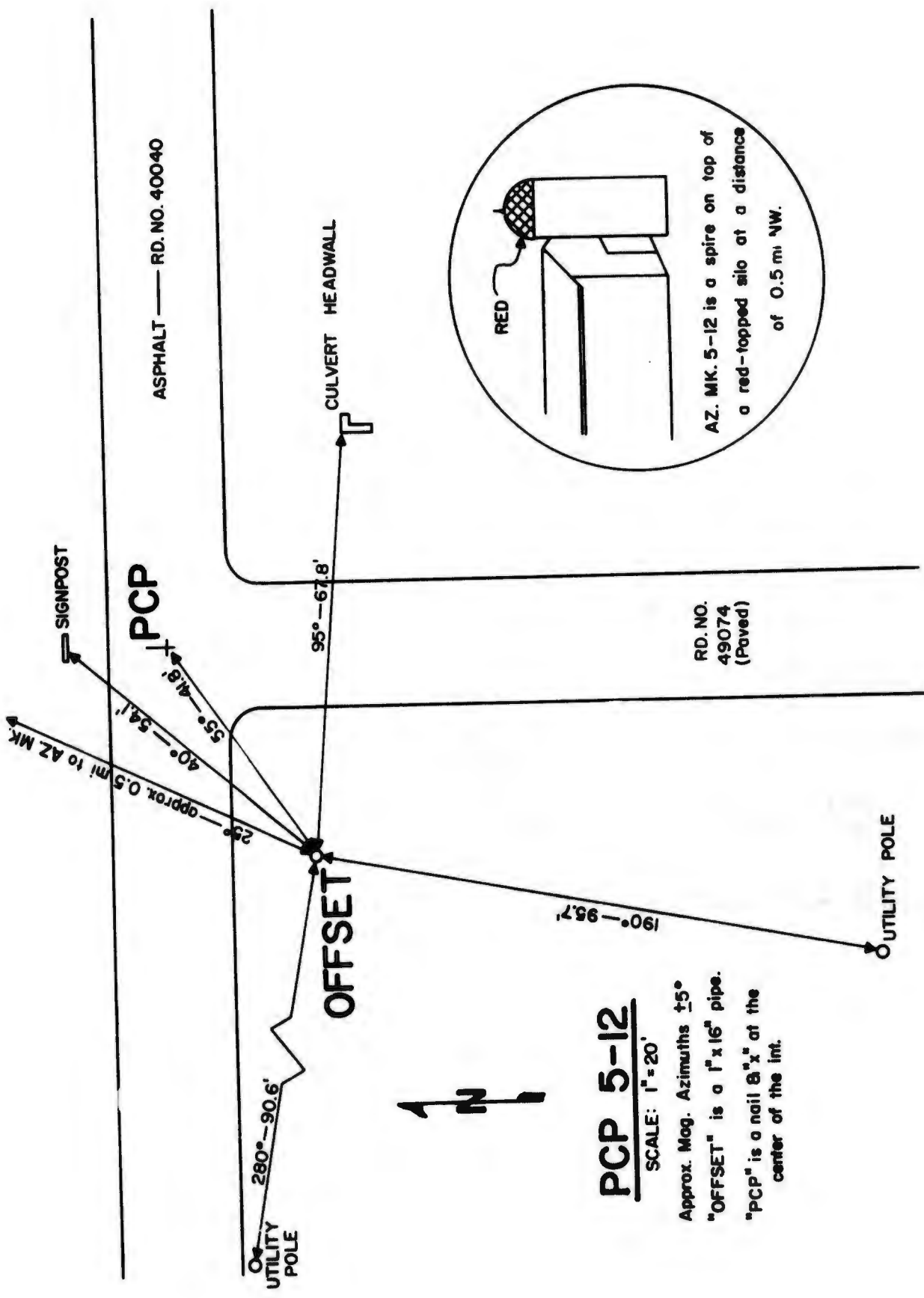
DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

15° 49' 3
 45° 15' 7

Not Required
 41.9

*Azimuth Mark Designation Az Mark (Spire on top of silo)



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 6 of 24 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 62
 Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 PCP: 5-14 PROJECT RAD: 6512
 AF64-RAD

QUADRANGLE: (Name) Milton
 (Scale) 1:62500

PCP

OFFSET

Geo. Pos. : Latitude 41° 02' 16" 919 N
 NAD 1927: Longitude 76° 57' 53" 145 W

41° 02' 16" 775 N
 76° 57' 52" 794 W

Grid Coord: X 2,216,625.5
 (Lambert) Y 318,457.8
 Zone PENN-NORTH

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 185.44
 SLD 1929 (Feet) 608.4

185.29
 607.9

LINE

AZIMUTH
 (from North)

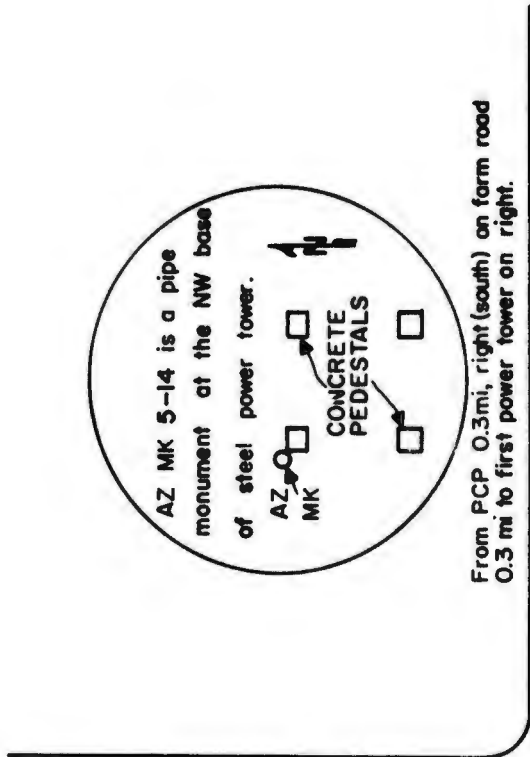
DISTANCE
 (Feet)

PCP Offset to Az. Mk.*
 PCP Offset to PCP

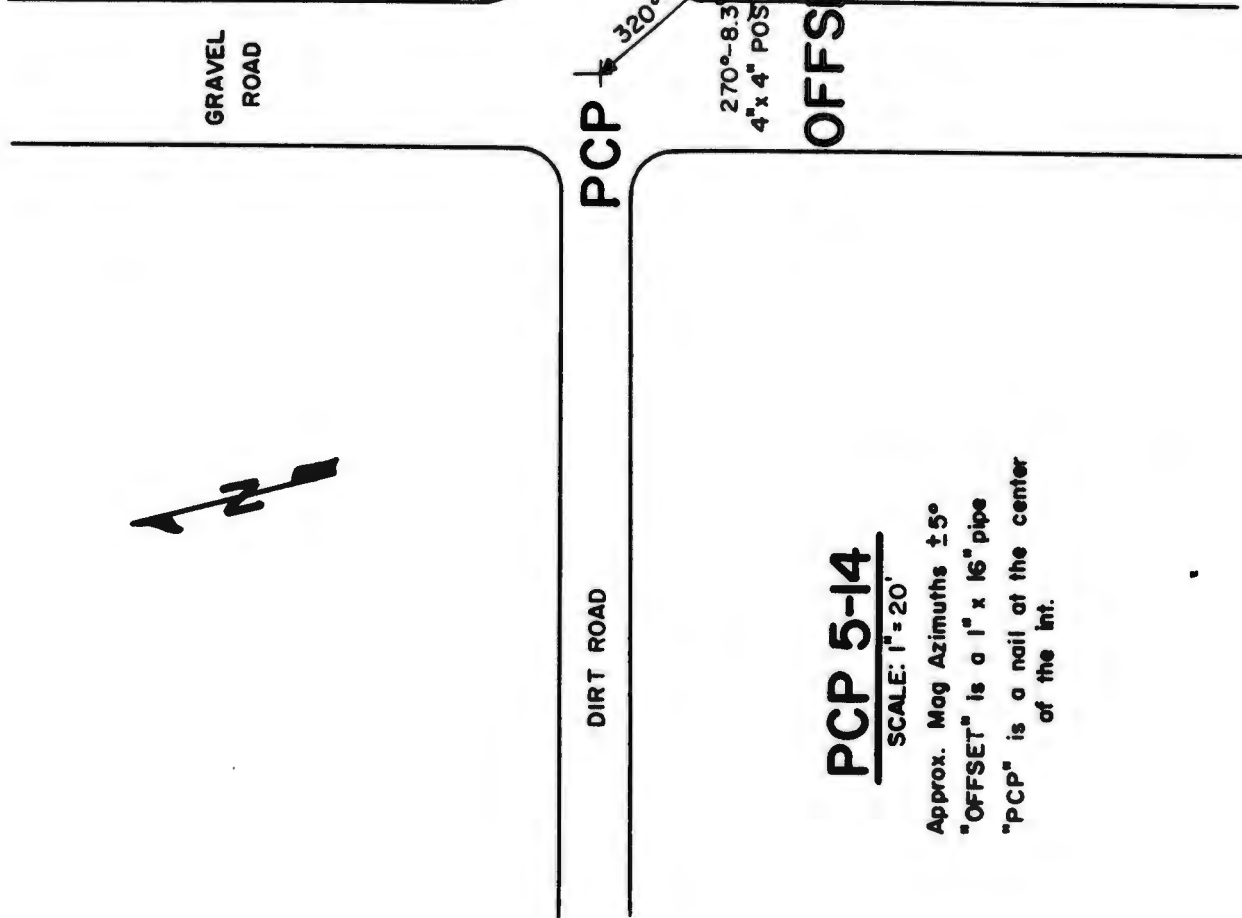
109° 39' 0
 298° 34' 3

Not Required
 30.6

*Azimuth Mark Designation 5-14 C



From PCP 0.3 mi, right (south) on farm road 0.3 mi to first power tower on right.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MA-15) Pg 7 of 24 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 63
 Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 PCP: 5-15 PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Milton
 (Scale) 1:62500

<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude 41° 02' 49" 232 N	41° 02' 48" 861 N
NAD 1927: Longitude 76° 45' 29" 075 W	76° 45' 28" 710 W
Grid Coord: X 2,273,604.8	(Not Required)
(Lambert) Y 322,312.8	(Not Required)
Zone PENN-NORTH	(Not Required)
Elevation (Meters) 182.14	183.47
SLD 1929 (Feet) 597.6	601.9

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	358° 30' 0	Not Required
PCP Offset to PCP	323° 19' 6	46.8

* Azimuth Mark Designation 5-15 B

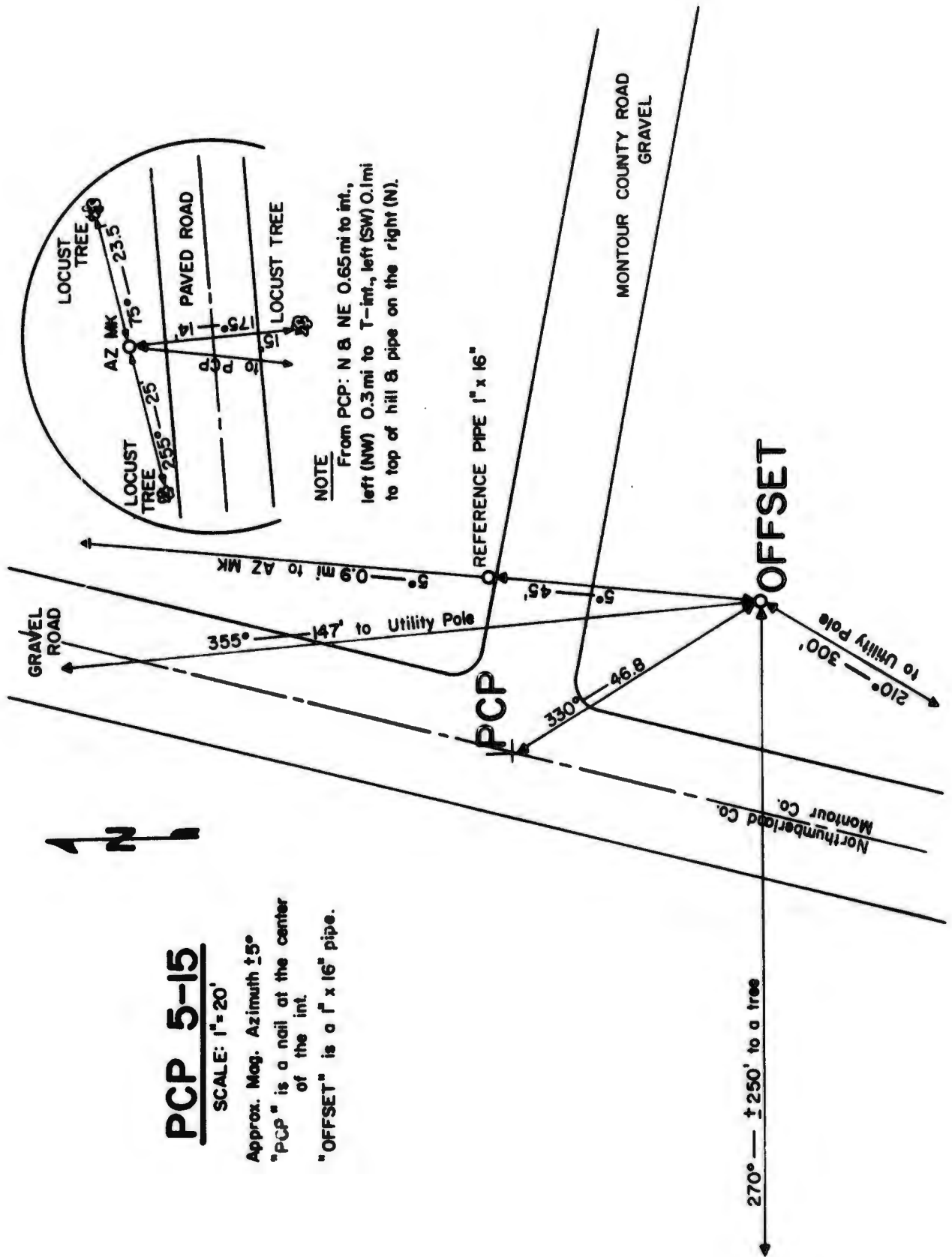
PCP 5-15

SCALE: 1" = 20'

Approx. Mag. Azimuth $\pm 5^\circ$

"PCP" is a nail at the center of the int.

"OFFSET" is a 1" x 16" pipe.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 64
 Pg 8 of 24 pgs
 Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

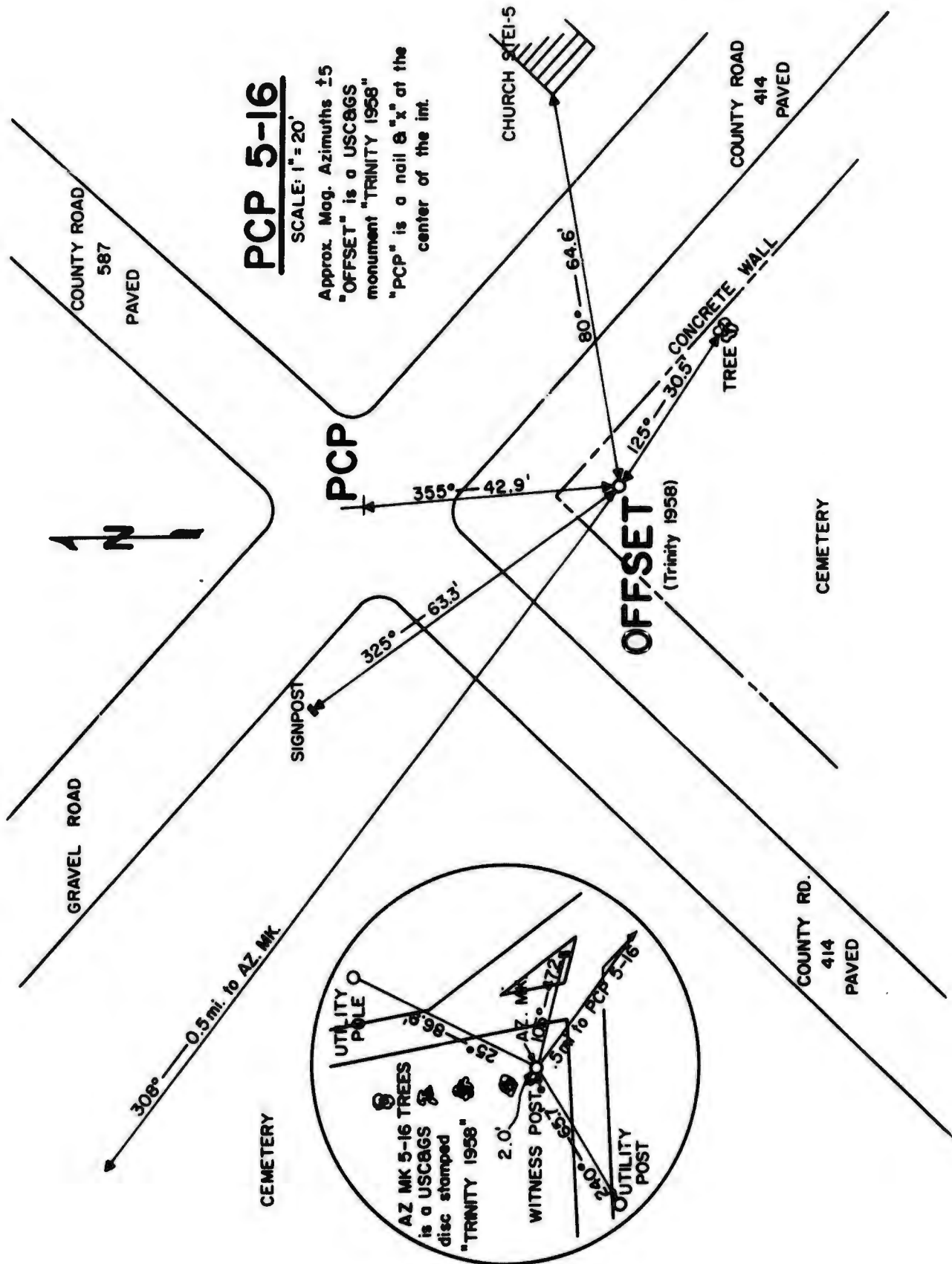
SUBRANGE: 5 PCP: 5-16 PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Hughesville
 (Scale) 1:62500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	41° 04' 32" 164 N	41° 04' 31" 745 N
NAD 1927: Longitude	76° 39' 06" 804 W	76° 39' 06" 717 W
Grid Coord: X	2,302,843.5	(Not Required)
(Lambert) Y	326,572.8	(Not Required)
Zone	PENN-NORTH	(Not Required)
Elevation (Meters)	173.93	175.88
SLD 1929 (Feet)	570.6	577.00

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	299° 21' 8	Not Required
PCP Offset to PCP	351° 06' 3	42.9

*Azimuth Mark Designation Az Mark



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 9 of 24 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 65
 Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 PCP: 5-17 PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Hughesville
 (Scale) 1:62500

PCP

OFFSET

Geo. Pos.: Latitude $41^{\circ} 05' 01''$ 038 N
 NAD 1927: Longitude $76^{\circ} 34' 37''$ 015 W

$41^{\circ} 04' 59''$ 818 N
 $76^{\circ} 34' 37''$ 142 W

Grid Coord: X 2,323,382.2
 (Lambert) Y 336,275.5
 Zone PENN-NORTH

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 189.18
 SLD 1929 (Feet) 620.7

191.75
 629.1

LINE

AZIMUTH
 (from North)

DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

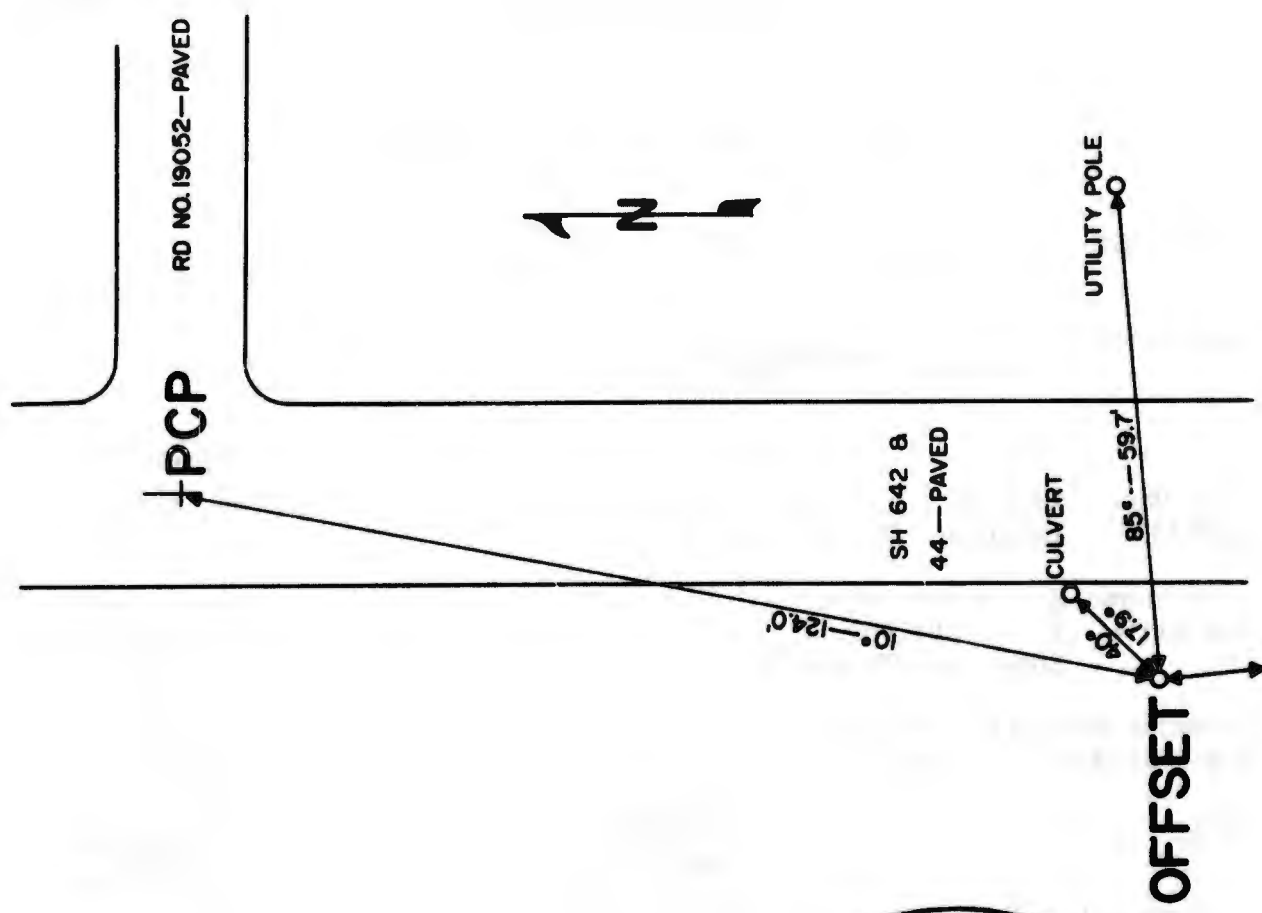
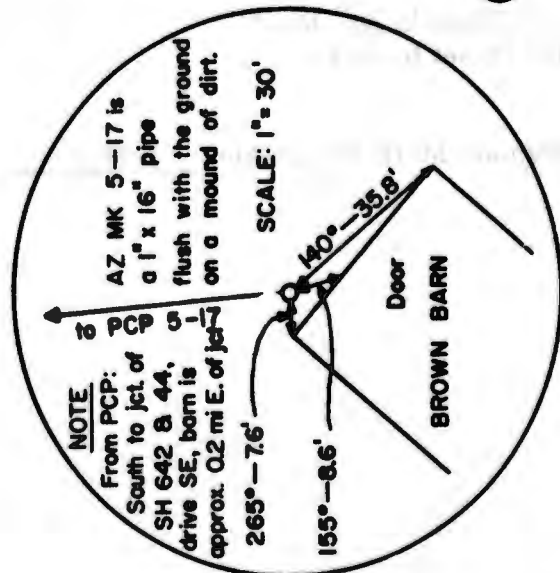
$168^{\circ} 41' 3$
 $4^{\circ} 29' 6$

Not Required
 123.9

*Azimuth Mark Designation 5-17A

PCP 5-17

Approx. Mag. Azimuths $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail θ an "x" at
 the center of the int.
 SCALE: 1" = 20'



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 10 of 24 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 66
 Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 PCP: 5-20 PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Hughesville
 (Scale) 1:62500

PCP

OFFSET

Geo. Pos.: Latitude $41^{\circ} 09' 39'' 043$ N
 NAD 1927: Longitude $76^{\circ} 40' 30'' 087$ W

$47^{\circ} 09' 38'' 891$ N
 $76^{\circ} 40' 30'' 396$ W

Grid Coord: X 2,295,997.4
 (Lambert) Y 364,058.1
 Zone PENN-NORTH

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 330.50
 SLD 1929 (Feet) 1084.3

330.39
 1084.0

LINE

AZIMUTH
 (from North)

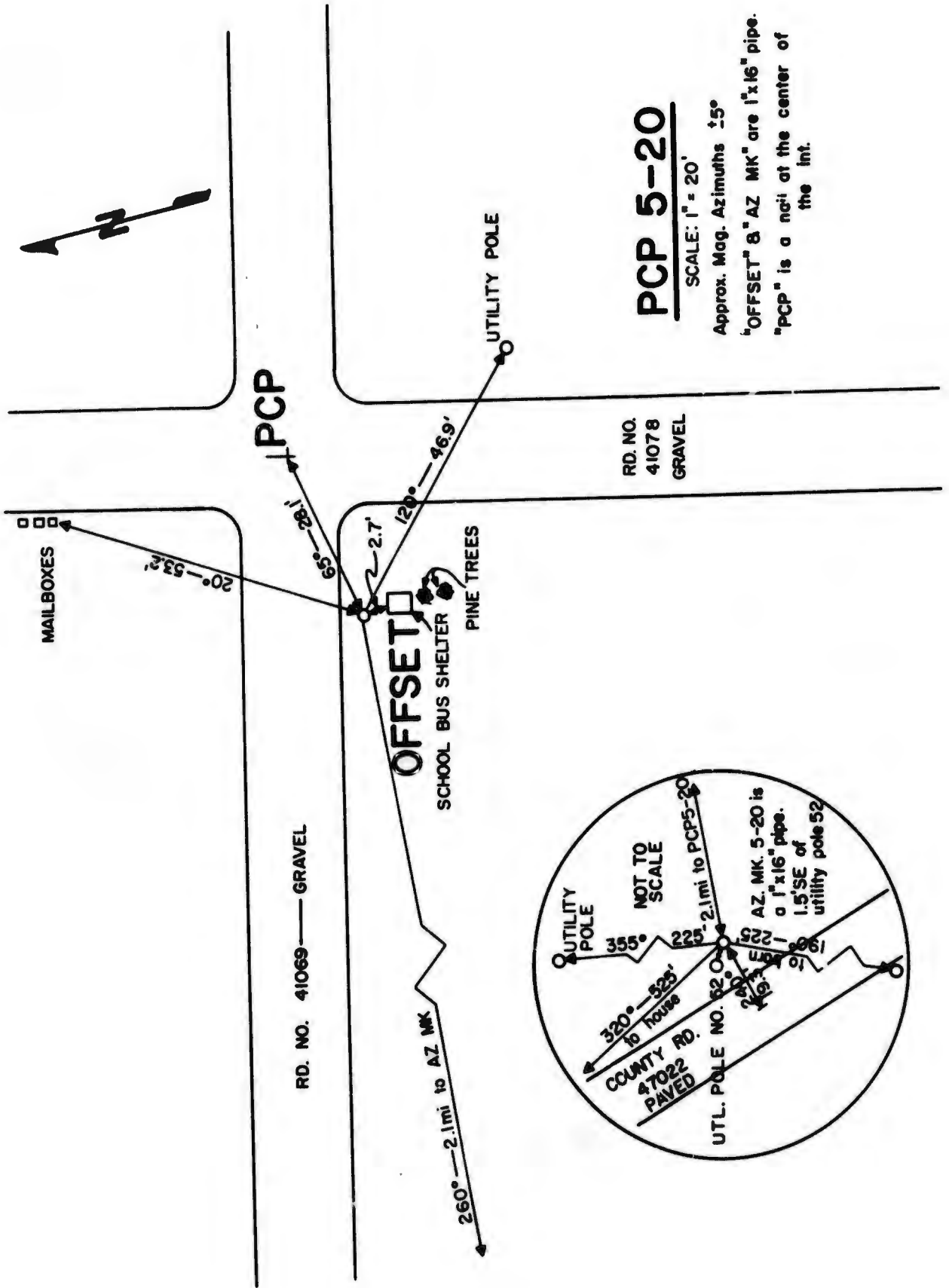
DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

$257^{\circ} 05' 6$
 $56^{\circ} 59' 6$

Not Required
 28.2

*Azimuth Mark Designation 5-20 A



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 67
 Pg 11 of 24 pgs
 Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 PCP: 5-21 PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Milton
 (Scale) 1:62500

PCP

OFFSET

Geo. Pos.: Latitude 41° 12' 04." 719 N
 NAD 1927: Longitude 76° 45' 24." 170 W

41° 12' 04." 536 N
76° 45' 24." 685 W

Grid Coord: X 2,273,335.9
 (Lambert) Y 378,531.9
 Zone PENN-NORTH

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 169.68
 SLD 1929 (Feet) 556.7

169.49
556.1

LINE

AZIMUTH
 (from North)

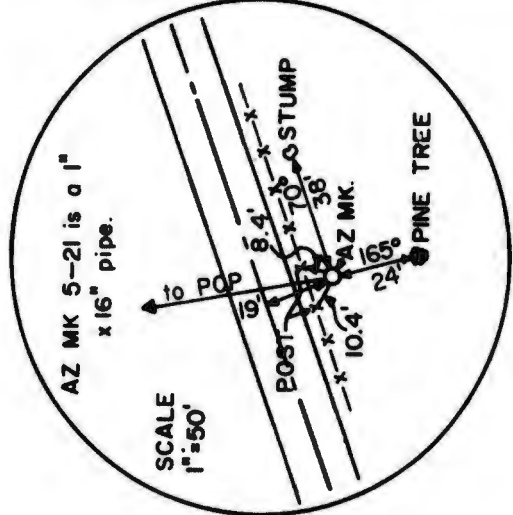
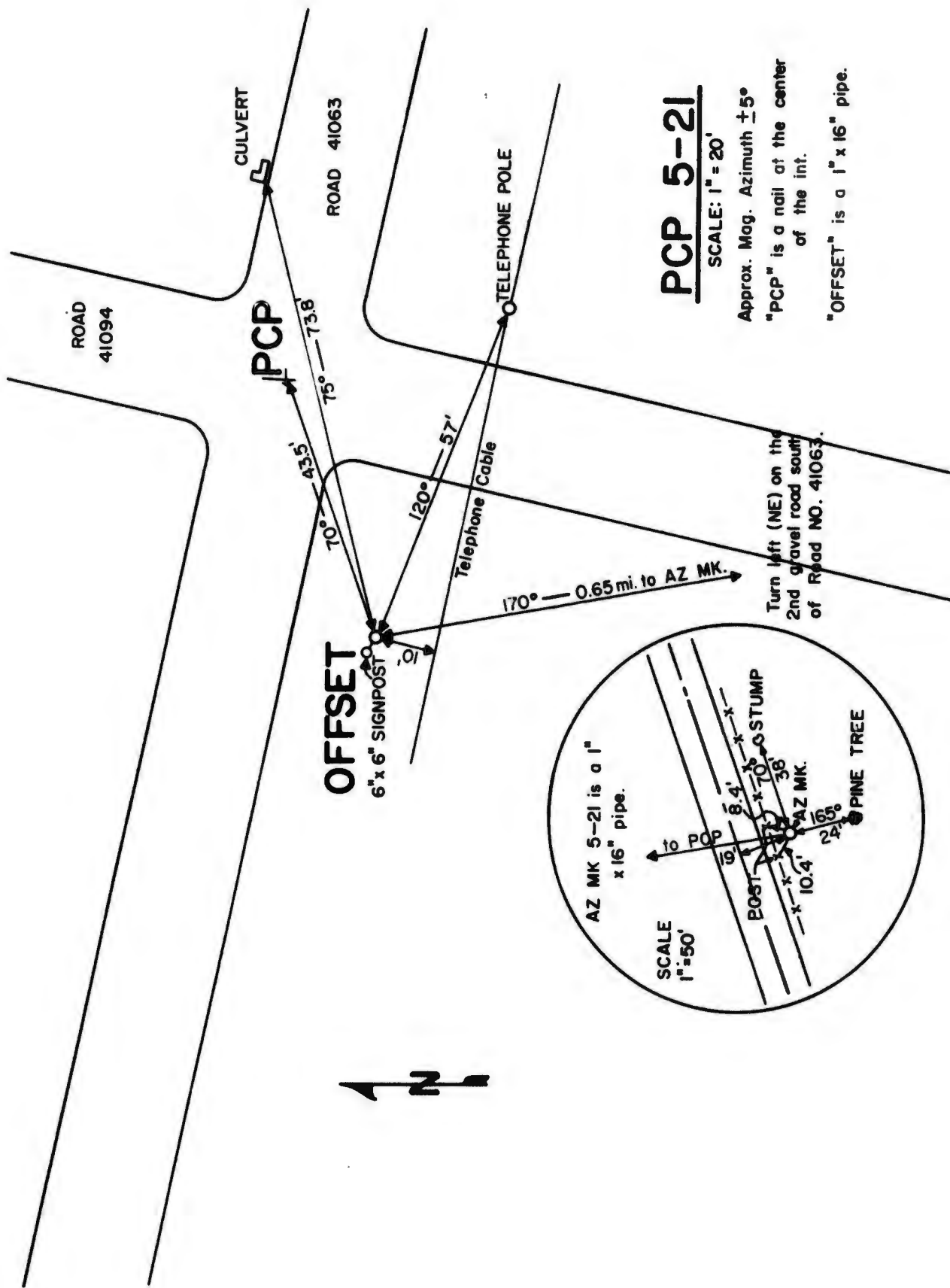
DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

160° 09!4
64° 47!5

Not Required
43.5

*Azimuth Mark Designation 5-21 C



PCP 5-21

SCALE: 1" = 20'

Approx. Mag. Azimuth $\pm 5^\circ$
 "PCP" is a nail at the center of the int.

"OFFSET" is a 1" x 16" pipe.

Turn left (NE) on the 2nd gravel road south of Road NO. 41063.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 68
 Pg 12 of 24 pgs
 Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 PCP: 5-26 PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Shamokin
 (Scale) 1:62500

PCP

Geo. Pos. : Latitude 40° 59' 10" 851 N
 NAD 1927: Longitude 76° 39' 23" 640 W

Grid Coord: X 2,301,882.1
 (Lambert) Y 300,500.4
 Zone PENN-NORTH

Elevation (Meters) 182.27
 SLD 1929 (Feet) 598.0

OFFSET

40° 59' 10" 566 N
 76° 39' 23" 876 W

(Not Required)
 (Not Required)
 (Not Required)

182.09
 597.4

LINE

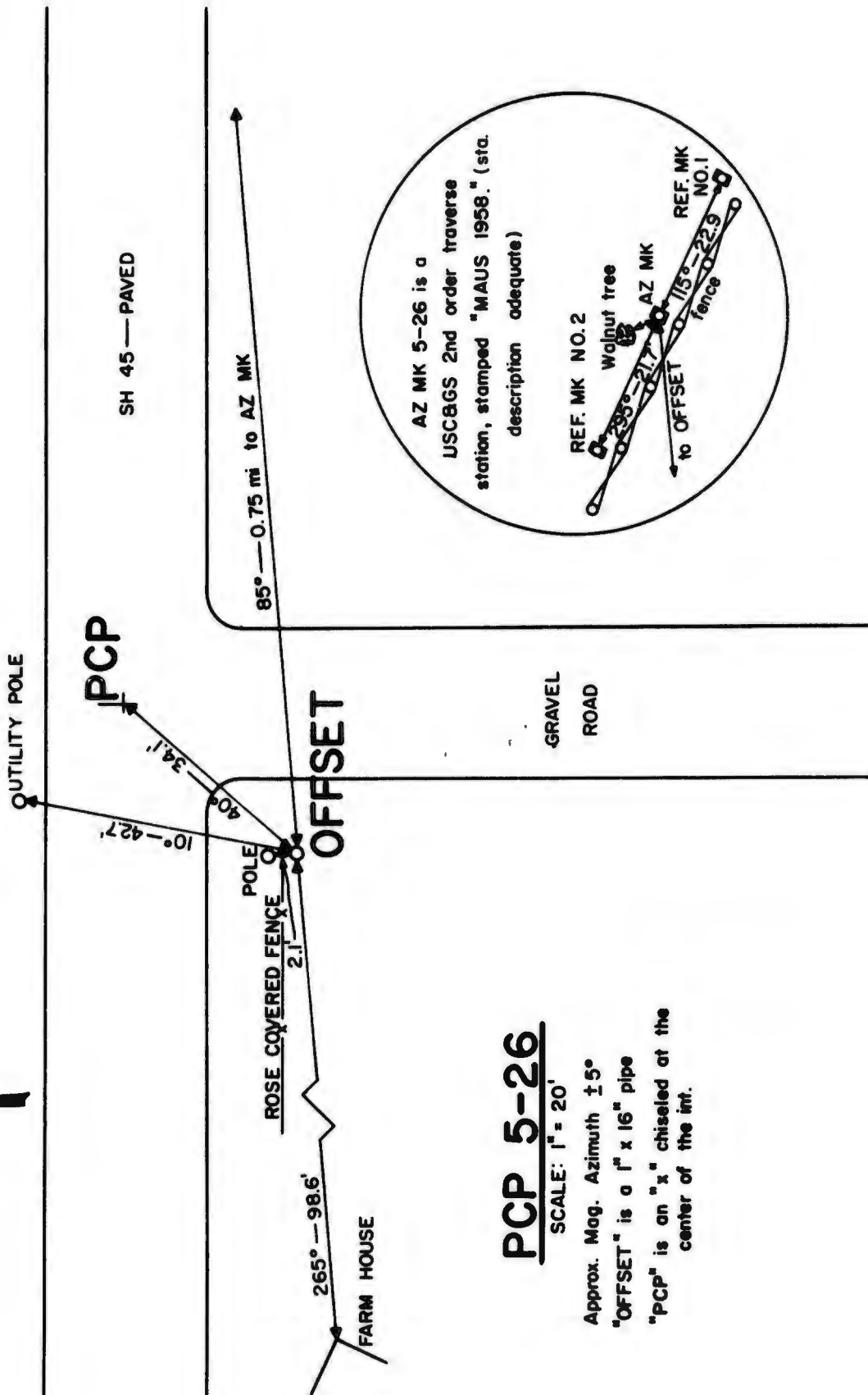
AZIMUTH
(from North)

PCP Offset to Az. Mk. * 76° 16' 3
 PCP Offset to PCP 32° 01' 7

DISTANCE
(Feet)

Not Required
 34.1

*Azimuth Mark Designation MAUS



PCP 5-26

SCALE: 1" = 20'

Approx. Mag. Azimuth $\pm 5^\circ$

"OFFSET" is a 1" x 16" pipe

"PCP" is an "x" chiseled at the center of the int.

1381ST GEODETIC SURVEY SQUADRON
AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
UNITED STATES AIR FORCE
Orlando AFB, Florida

PCPDS NO. 69
Pg 13 of 24 pgs
Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 (Montgomery Offset) PCP: 5-51 PROJECT RADC 6512
AF64-RAD 2

QUADRANGLE: (Name) Milton
(Scale) 1:62500

PCP (Montgomery Offset)

OFFSET

Geo. Pos. : Latitude $41^{\circ} 09' 32'' 307$ N
NAD 1927: Longitude $76^{\circ} 53' 39'' 162$ W

Grid Coord: X 2,235,652.5
(Lambert) Y 362,703.7
Zone PENN-NORTH

(Not Required)
(Not Required)
(Not Required)

Elevation (Meters) 306.86
SLD 1929 (Feet) 1006.8

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk. *
PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
UNITED STATES AIR FORCE
Orlando AFB, Florida

PCPDS NO. 70
Pg 14 of 24 pgs
Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 PCP: 5-52 PROJECT RADC 6512
AF64-RAD 2

QUADRANGLE: (Name) Milton
(Scale) 1:62500

PCP (Dividing Offset)

OFFSET

Geo. Pos. : Latitude $41^{\circ} 09' 01''$ 479 N
NAD 1927: Longitude $76^{\circ} 45' 25''$ 560 W

Grid Coord: X 2,273,442.2
(Lambert) Y 359,986.8
Zone PENN-NORTH

(Not Required)
(Not Required)
(Not Required)

Elevation (Meters) 355.66
SLD 1929 (Feet) 1166.9

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk. *
PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
UNITED STATES AIR FORCE
Orlando AFB, Florida

PCPDS NO. 72
Pg 16 of 24 pgs
Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 (Turbot Offset) PCP: 5-54 PROJECT RADC 6512
AF64-RAD 2

QUADRANGLE: (Name) Milton
(Scale) 1:62500

PCP (Turbot Offset)

OFFSET

Geo. Pos. : Latitude $41^{\circ} 05' 30''$ 395 N
NAD 1927: Longitude $76^{\circ} 46' 37''$ 510 W

Grid Coord: X 2,268,178.3
(Lambert) Y 338,562.8
Zone

(Not Required)
(Not Required)
(Not Required)

Elevation (Meters) 281.96
SLD 1929 (Feet) 718.4

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk. *
PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
UNITED STATES AIR FORCE
Orlando AFB, Florida

PCPDS NO. 74
Pg 18 of 24 pgs
Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 PCP: 5-56 (Peck Offset) PROJECT RADC 6512
AF64-RAD 2

QUADRANGLE: (Name) Hughesville
(Scale) 1:62500

PCP (Peck Offset)

OFFSET

Geo. Pos. : Latitude 41° 01' 23" 577 N
NAD 1927: Longitude 76° 39' 57" 623 W

Grid Coord: X 2,299,107.9
(Lambert) Y 313,949.1
Zone PENN-NORTH

(Not Required)
(Not Required)
(Not Required)

Elevation (Meters) 302.79
SLD 1929 (Feet) 993.4

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk. *
PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 75
 Pg 19 of 24 pgs
 Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 (Milton Offset) PCP: 5-57 PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Milton
 (Scale) 1:62500

PCP (MILTON Offset)

OFFSET

Geo. Pos. : Latitude $41^{\circ} 00' 53'' 019$ N
 NAD 1927: Longitude $76^{\circ} 50' 28'' 060$ W

Grid Coord: X 2,250,820.8 (Not Required)
 (Lambert) Y 310,300.7 (Not Required)
 Zone PENN-NORTH (Not Required)

Elevation (Meters) 170.77
 SLD 1929 (Feet) 560.3

LINE

AZIMUTH
 (from North)

DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
UNITED STATES AIR FORCE
Orlando AFB, Florida

PCPDS NO. 76
Pg 20 of 24 pgs
Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 (Vandine Offset) PCP: 5-58 PROJECT RADC 6512
AF64-RAD 2

QUADRANGLE: (Name) Hughesville
(Scale) 1:62500

PCP (Vandine Offset)

OFFSET

Geo. Pos. : Latitude 41° 08' 50" 798 N
NAD 1927: Longitude 76° 36' 00" 836 W

Grid Coord: X 2,316,655.2
(Lambert) Y 359,440.3
Zone PENN-NORTH

(Not Required)
(Not Required)
(Not Required)

Elevation (Meters) 426.31
SLD 1929 (Feet) 1398.7

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk. *
PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 77
 Pg 21 of 24 pgs
 Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 (Lane Offset) PCP: 5-59 PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Milton
 (Scale) 1:62500

PCP (Lane Offset)

OFFSET

Geo. Pos. : Latitude 41° 07' 41" 437 N
 NAD 1927: Longitude 76° 54' 46" 427 W

Grid Coord: X 2,230,616.0
 (Lambert) Y 351,433.2
 Zone PENN-NORTH

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 183.37
 SLD 1929 (Feet) 601.6

LINE

AZIMUTH
(from North)

DISTANCE
(Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 78
 Pg 22 of 24 pgs
 Date: 20 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 PCP: 5-61 (Yokum Offset) PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Milton
 (Scale) 1:62500

PCP (Yokum Offset)

OFFSET

Geo. Pos. : Latitude 41° 03' 23.975 N
 NAD 1927: Longitude 76° 52' 01.267 W

Grid Coord: X 2,243,520.2
 (Lambert) Y 325,503.5
 Zone PENN-NORTH

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 145.99
 SLD 1929 (Feet) 479.0

LINE

AZIMUTH
 (from North)

DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 79
 Pg 23 of 24 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 5 (Oak Offset) PCP: 5-62 PROJECT RADC 6512
 AF64-RAD 2

QUADRANGLE: (Name) Shamokln
 (Scale) 1:62500

PCP (Oak Offset)

OFFSET

Geo. Pos. : Latitude 40° 59' 57" 459 N
 NAD 1927: Longitude 76° 42' 14" 833 W

Grid Coord: X 2,288,696.9
 (Lambert) Y 305,104.8
 Zone PENN-NORTH

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 270.26
 SLD 1929 (Feet) 886.7

LINE

AZIMUTH
 (from North)

DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 1
 Pg 1 of 29 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-01 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) ANGELICA
 (Scale) 1:62500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	42° 24' 15" 531	42° 29' 15" 404
NAD 1927: Longitude	78° 07' 28" 959	78° 07' 29" 018
Grid Coord: X	623866.2	(Not Required)
Y	876307.3	(Not Required)
(UTM) Zone	New York, West	(Not Required)
Elevation (Meters)	442.33	442.04
SLD 1929 (Feet)	1451.3	1450.3

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	303° 39' 8	Not Required
PCP Offset to PCP	19° 06' 1	13.6

*Azimuth Mark Designation LIGHTNING ROD

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 81
 Pg 1 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

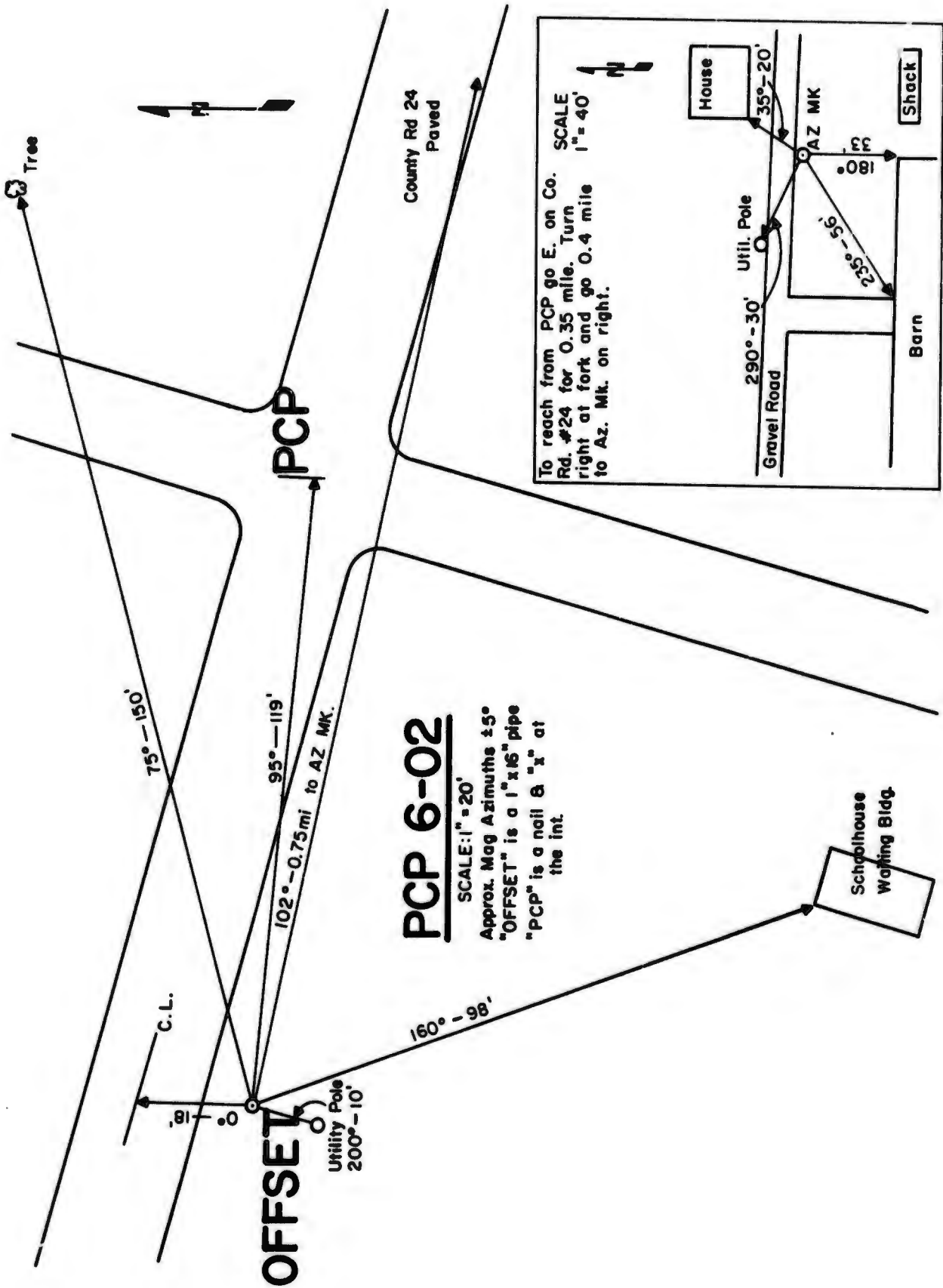
SUBRANGE: 6 PCP: 6-02 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Canaseraga
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	42° 26' 59" 339 N	42° 26' 59" 171 N
NAD 1927: Longitude	77° 54' 21" 679 W	77° 54' 23" 246 W
Grid Coord: X	682,798.2	(Not Required)
(Mercator) Y	893,283.9	(Not Required)
Zone	New York - West	(Not Required)
Elevation (Meters)	624.12	623.65
SLD 1929 (Feet)	2047.6	2046.1

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk. *	89° 53' 9	Not Required
PCP Offset to PCP	81° 46' 8	118.7

*Azimuth Mark Designation 6-02C



To reach from PCP go E. on Co. Rd. #24 for 0.35 mile. Turn right at fork and go 0.4 mile to Az. Mk. on right. SCALE 1" = 40'

PCP 6-02

SCALE: 1" = 20'
 Approx. Mag Azimuths ± 5°
 "OFFSET" is a 1" x 16" pipe
 "PCP" is a nail & "x" at the int.

OFFSET

Utility Pole
 200' - 10'

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 2
 Pg 2 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-03 PROJECT RADC 6512
 AF64-RAD 6A

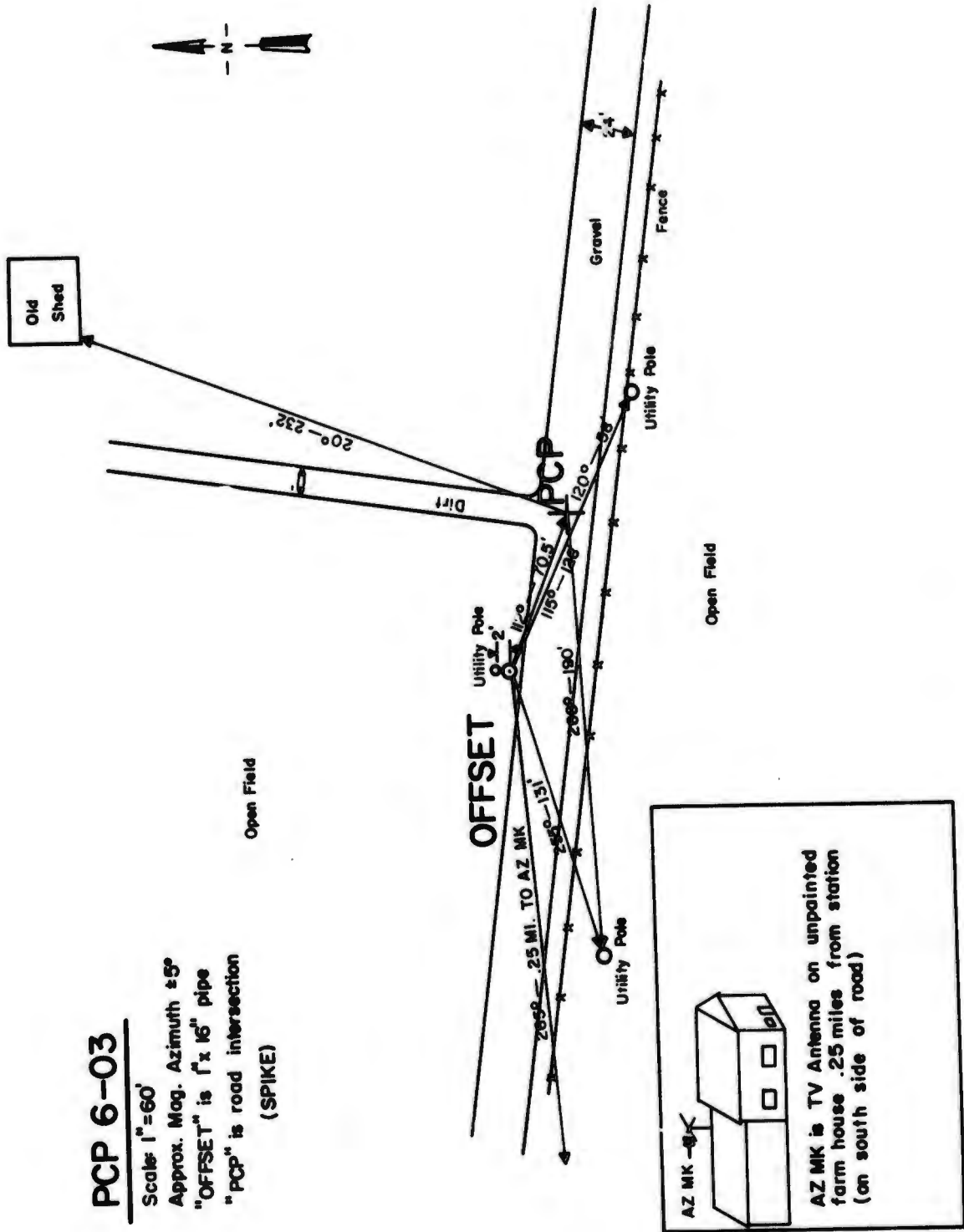
QUADRANGLE: (Name) PORTAGEVILLE
 (Scale) 1:24000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	42° 30' 02" 153 N	42° 30' 02" 369 N
NAD 1927: Longitude	78° 05' 58" 977 W	78° 05' 59" 874 W
Grid Coord: X	630417.0	(Not Required)
(UTM) Y	911432.1	(Not Required)
Zone	New York, West	(Not Required)
Elevation (Meters)	432.56	432.90
SLD 1929 (Feet)	1419.2	1420.3
<u>LINE</u>	<u>AZIMUTH</u>	<u>DISTANCE</u>
	<u>(from North)</u>	<u>(Feet)</u>
PCP Offset to Az. Mk. *	260° 40' 5	Not Required
PCP Offset to PCP	108° 12' 9	70.5

*Azimuth Mark Designation T. V. ANTENNA

PCP 6-03

Scale: 1"=60'
 Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is 1" x 16" pipe
 "PCP" is road intersection
 (SPIKE)



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 82
 Pg 2 of 21 pgs
 Date: 24 Aug 64

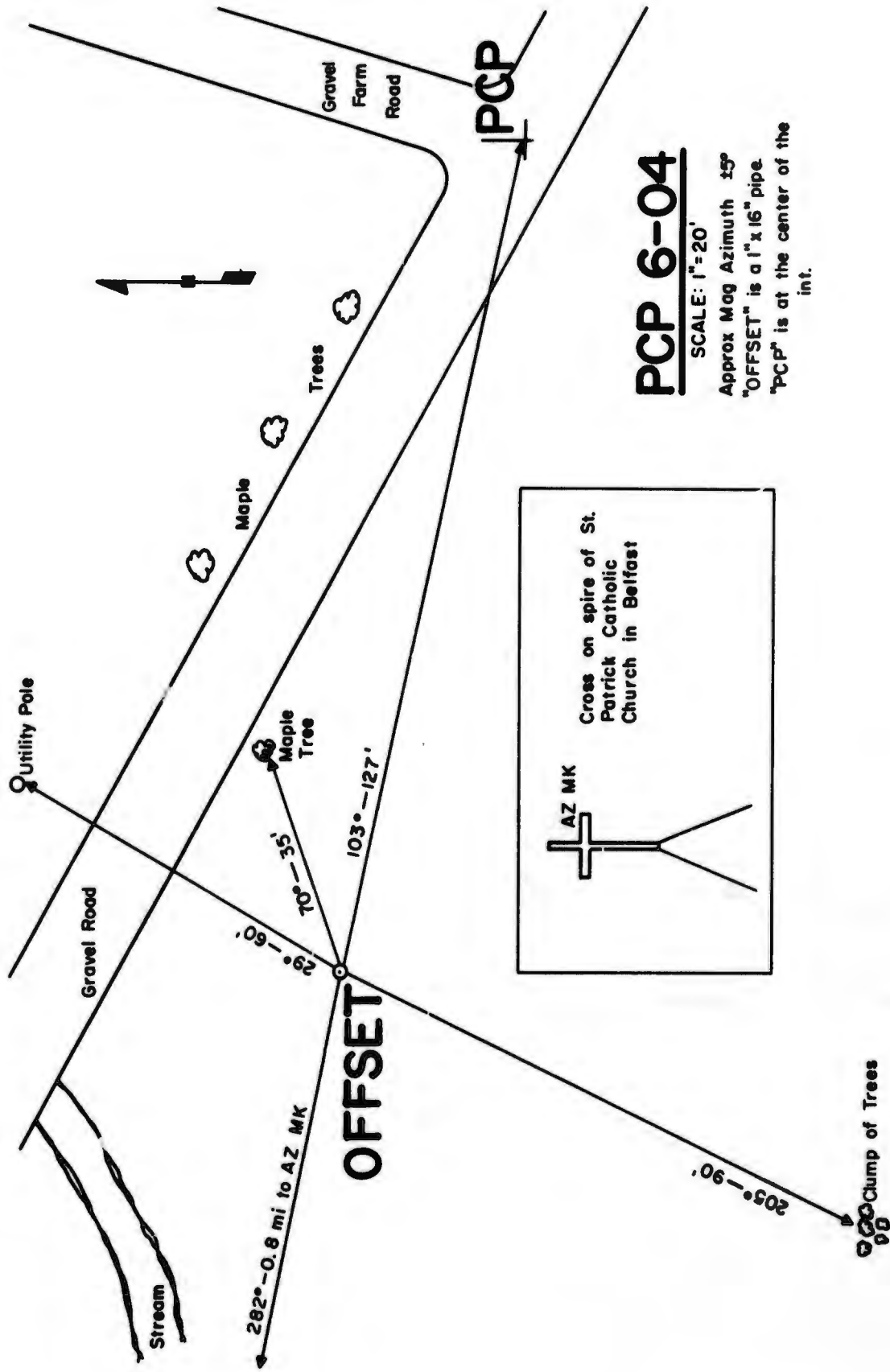
PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-04 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Angelica
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	42° 20' 38".842 N	42° 20' 38".842 N
NAD 1927: Longitude	78° 05' 55".124 W	78° 05' 56".820 W
Grid Coord: X	631,031.0	(Not Required)
(Mercator) Y	854,412.1	(Not Required)
Zone	New York - West	(Not Required)
Elevation (Meters)	431.60	434.39
SLD 1929 (Feet)	1416.0	1425.2
<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	269° 40' 0	Not Required
PCP Offset to PCP	89° 59' 4	127.3

*Azimuth Mark Designation St. Patrick Church (Spire)



PCP 6-04

SCALE: 1"=20'
 Approx Mag Azimuth ±5°
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is at the center of the
 int.

PHOTO CONTROL POINT DATA SHEET

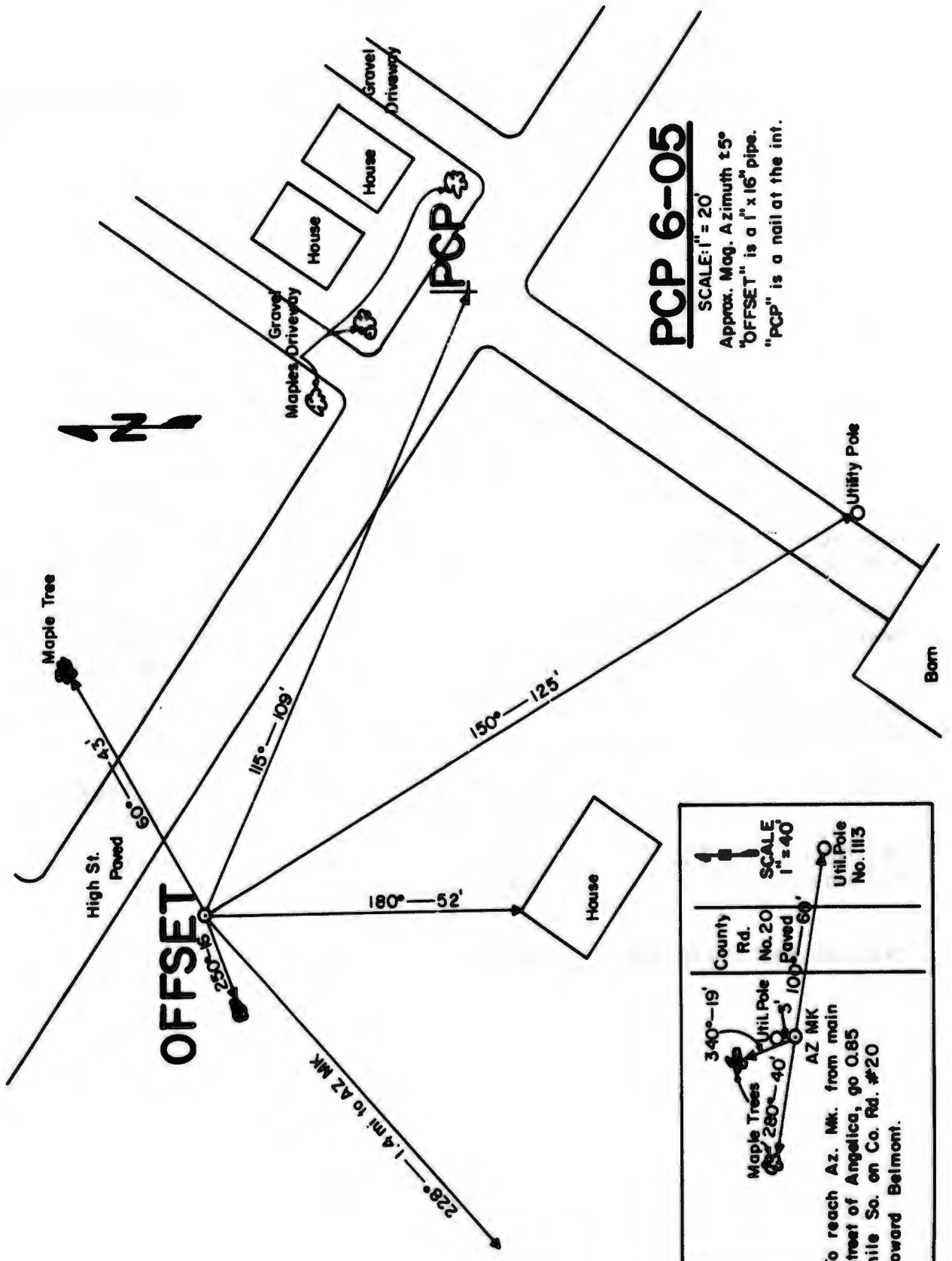
SUBRANGE: 6 PCP: 6-05 PROJECT RADC 6512
 AF64-RAD

QUADRANGLE: (Name) Angelica
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	42° 18' 34".915 N	42° 18' 35".149 N
NAD 1927: Longitude	78° 01' 21".020 W	78° 01' 22".437 W
Grid Coord: X	651,697.5	(Not Required)
(Mercator) Y	841,994.2	(Not Required)
Zone	New York - West	(Not Required)
Elevation (Meters)	450.54	449.55
SLD 1929 (Feet)	1478.1	1474.9

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk. *	191° 31'.7	Not Required
PCP Offset to PCP	102° 33'.3	109.1

*Azimuth Mark Designation 6-17 B2



PCP 6-05

SCALE: 1" = 20'
 Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail at the int.

OFFSET

<p>Maple Trees 340°-19' 280°-40'</p>	<p>Util. Pole 100°-5'</p>	<p>County Rd. No. 20 Paved 100°-60'</p>	<p>Util. Pole No. 1113</p>
--	--	--	----------------------------

AZ MK

To reach Az. Mk. from main street of Angelica, go 0.85 mile So. on Co. Rd. #20 toward Belmont.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 84
 Pg 4 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-06 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Canaseraga
 (Scale) 1:62500

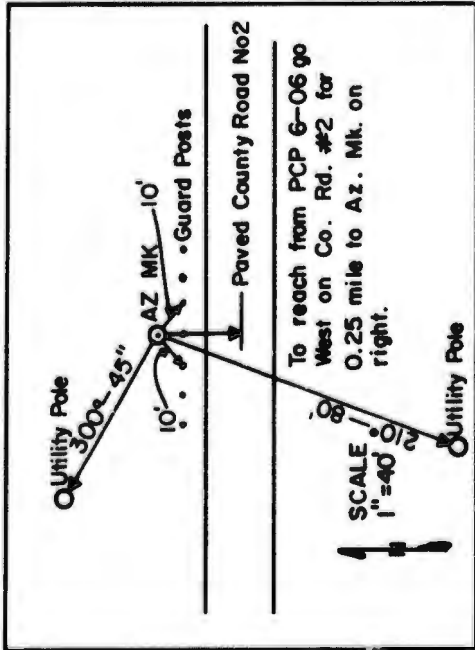
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	42° 17' 53" 341 N	42° 17' 52" 930 N
NAD 1927: Longitude	77° 53' 29" 297 W	77° 53' 28" 991 W
Grid Coord: X	687, 175. 1	(Not Required)
(Mercator) Y	838, 046. 7	(Not Required)
Zone	New York - West	(Not Required)
Elevation (Meters)	575. 59	576. 50
SLD 1929 (Feet)	1888. 4	1891. 4

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	257° 45' 1	Not Required
PCP Offset to PCP	330° 59' 9	47. 5

*Azimuth Mark Designation 6-06C

PCP 6-06

SCALE: 1" = 20'
 Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail at the int.



Gravel Road

PCP

Paved County Road No 2

344°-48'

OFFSET



2.70° — .25mi to AZ MK.

Forest

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 85
 Pg 5 of 21 pgs
 Date: 24 Aug 64

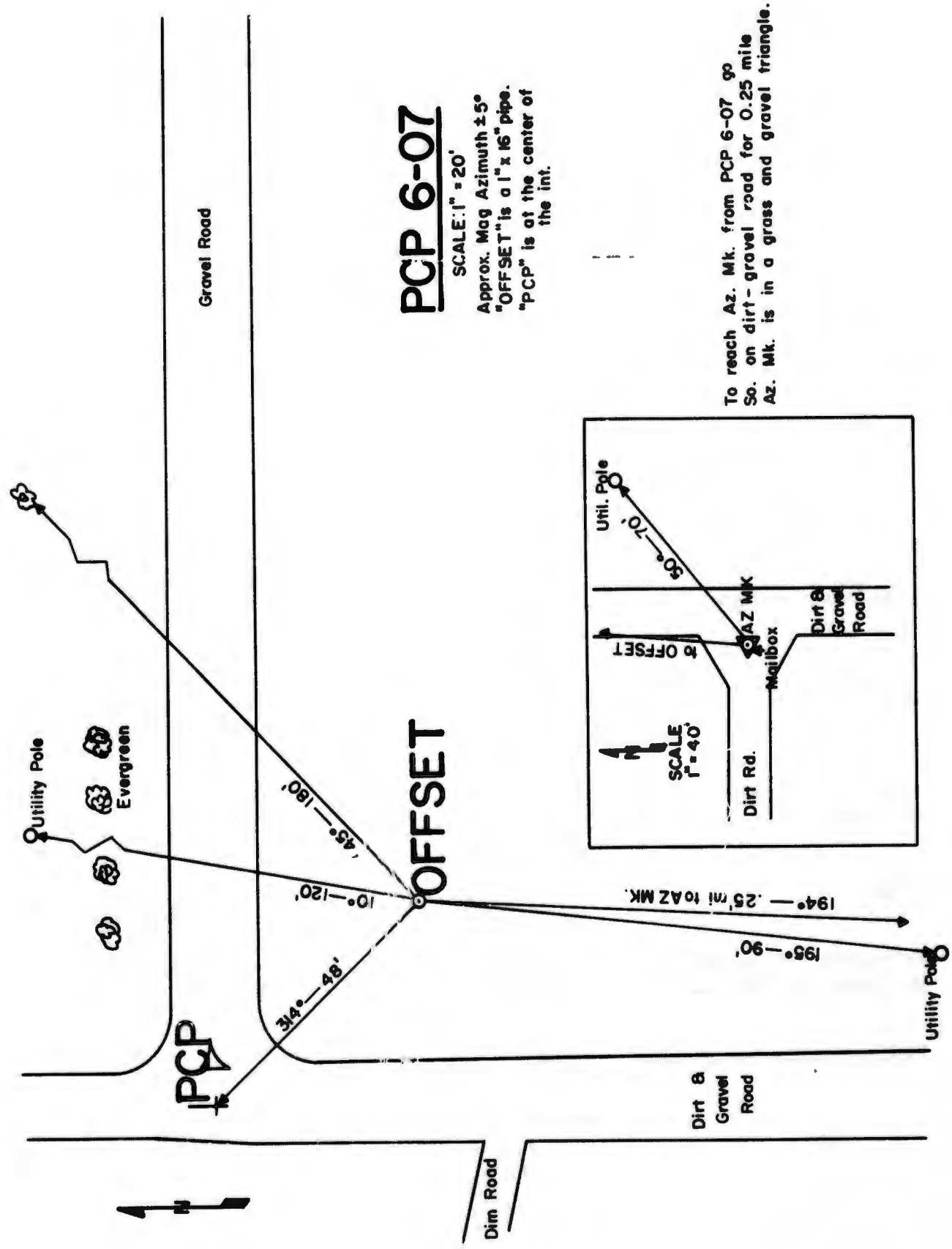
PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-07 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Canaseraga
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	42° 24' 38".806 N	42° 24' 38".430 N
NAD 1927: Longitude	77° 57' 22".407 W	77° 57' 22".017 W
Grid Coord: X	669,354.3	(Not Required)
(Mercator) Y	878,954.2	(Not Required)
Zone	New York - West	(Not Required)
Elevation (Meters)	596.14	596.51
SLD 1929 (Feet)	1955.8	1957.0
<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	182° 50! 0	Not Required
PCP Offset to PCP	3220 24! 4	48.0

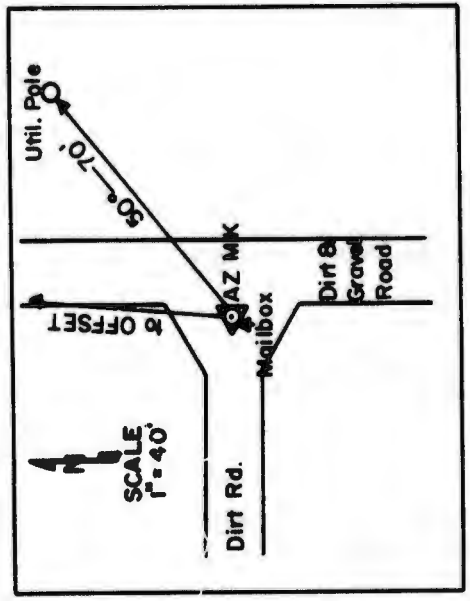
*Azimuth Mark Designation Az Mark



PCP 6-07

SCALE: 1" = 20'

Approx. Mag Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is at the center of the int.



To reach Az. Mk. from PCP 6-07 go So. on dirt-gravel road for 0.25 mile Az. Mk. is in a grass and gravel triangle.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 86
 Pg 6 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

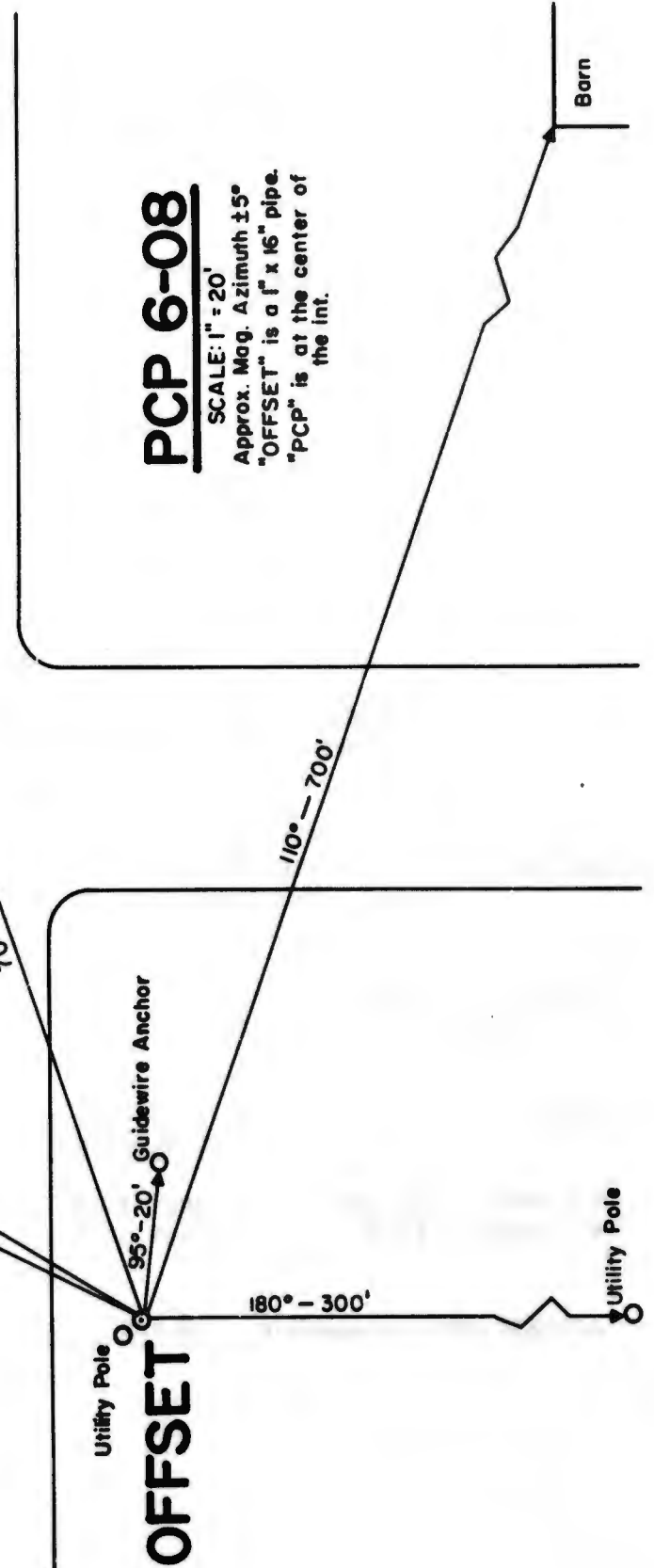
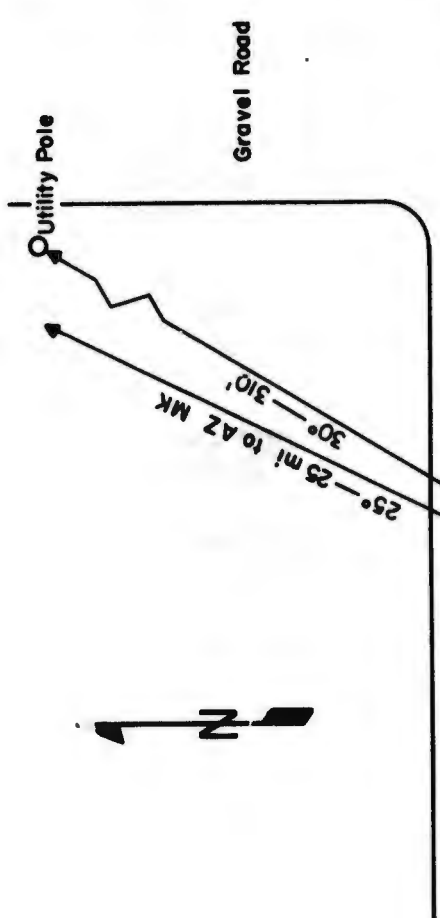
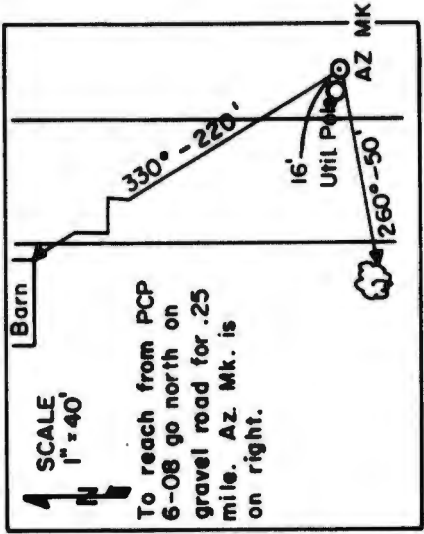
SUBRANGE: 6 PCP: 6-08 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Canaseraga
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 28' 27" 636 N	42° 28' 27" 242 N
NAD 1927: Longitude	77° 57' 50" 270 W	77° 57' 51" 086 W
Grid Coord: X	667,095.1	(Not Required)
(Mercator) Y	902,102.5	(Not Required)
Zone	New York - West	(Not Required)
Elevation (Meters)	604.39	603.80
SLD 1929 (Feet)	1982.9	1981.0

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	12° 35' 1"	Not Required
PCP Offset to PCP	56° 56' 7"	73.0

*Azimuth Mark Designation 6-08D



PCP 6-08

SCALE: 1" = 20'

Approx. Mag. Azimuth $\pm 5^\circ$

"OFFSET" is a 1" x 16" pipe.

"PCP" is at the center of the int.

OFFSET

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 87
 Pg 7 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

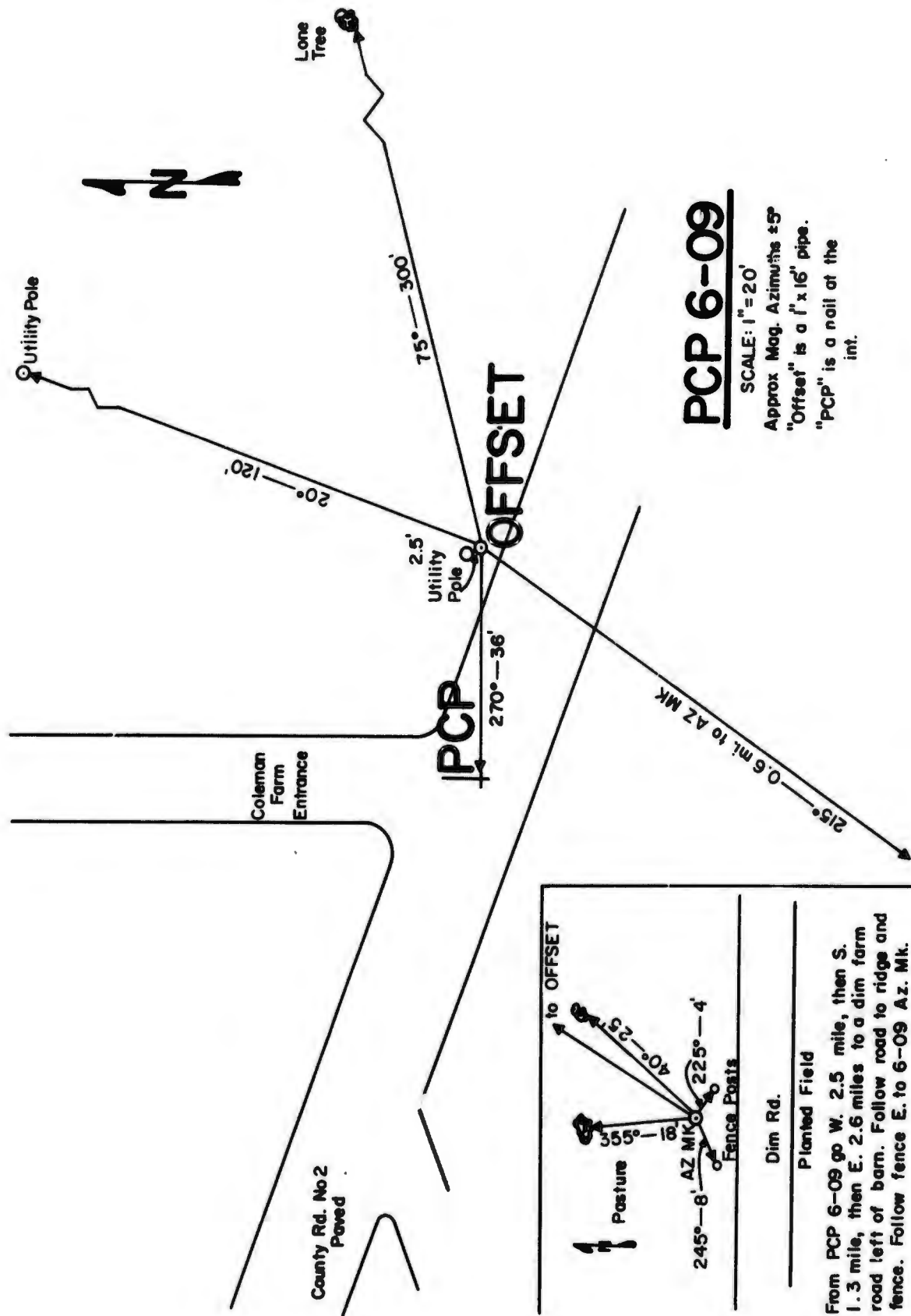
SUBRANGE: 6 PCP: 6-09 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Canaseraga
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 19' 13"782 N	42° 19' 13"866 N
NAD 1927: Longitude	77° 46' 25"631 W	77° 46' 25"171 W
Grid Coord: X	718,936.1	(Not Required)
(Mercator) Y	846,470.1	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	442.30	441.98
SLD 1929 (Feet)	1451.1	1450.1

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*	203° 20'9	Not Required
PCP Offset to PCP	256° 14'5	35.6

*Azimuth Mark Designation 6-09A



PCP 6-09

SCALE: 1" = 20'
 Approx Mag. Azimuths $\pm 5'$
 "Offset" is a 1" x 16" pipe.
 "PCP" is a nail at the int.

to OFFSET

$55'$ Pasture
 $55'$ Lone Tree
 $245^{\circ}-8'$ AZ MK
 $225^{\circ}-4'$ Fence Posts

Dim Rd.

Planted Field

From PCP 6-09 go W. 2.5 mile, then S. 1.3 mile, then E. 2.6 miles to a dim farm road left of barn. Follow road to ridge and fence. Follow fence E. to 6-09 AZ. MK.

1318ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 88
 Pg 8 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-10 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Angelica
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 22' 45" 671 N	42° 22' 46" 100 N
NAD 1927: Longitude	78° 12' 05" 501 W	78° 12' 06" 166 W
Grid Coord: X	603,160.0	(Not Required)
(Mercator) Y	867,108.7	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	457.15	457.76
SLD 1929 (Feet)	1499.8	1501.8

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*	101° 41' 5"	Not Required
PCP Offset to PCP	131° 04' 4"	66.2

*Azimuth Mark Designation 6-10B

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) PCPDS NO. 3
 UNITED STATES AIR FORCE Pg 3 of 29 pgs
 Orlando AFB, Florida Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-11 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Angelica
 (Scale) 1:62,500

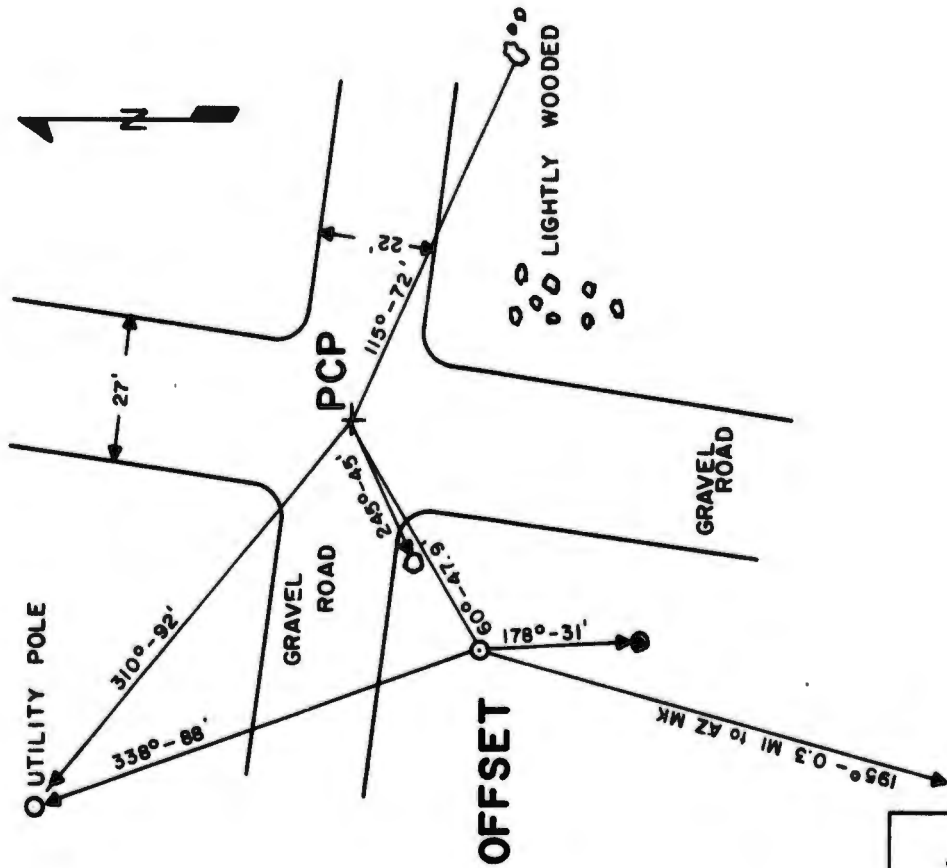
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 26' 49" 149 N	42° 26' 48" 837 N
NAD 1927: Longitude	78° 15' 00" 602 W	78° 15' 01" 082 W
Grid Coord: X	589,921.5	(Not Required)
Y	891,699.6	(Not Required)
(UTM) Zone	New York-West	(Not Required)
Elevation (Meters)	595.65	595.94
SLD 1929 (Feet)	1954.2	1955.2

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	186° 39' 8	Not Required
PCP Offset to PCP	48° 45' 8	47.9

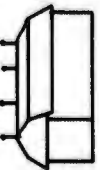
*Azimuth Mark Designation Lightning Rod

PCP 6-II

Scale 1" = 30'
 Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is 1" x 16" pipe
 "PCP" is center of intersection (spike)



AZ MK is west rod of four lightning AZ MK rods on the barn located 0.3 miles south of PCP and on west side of Centerville road.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 4
 Pg 4 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-12 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Angelica
 (Scale) 1:62,500

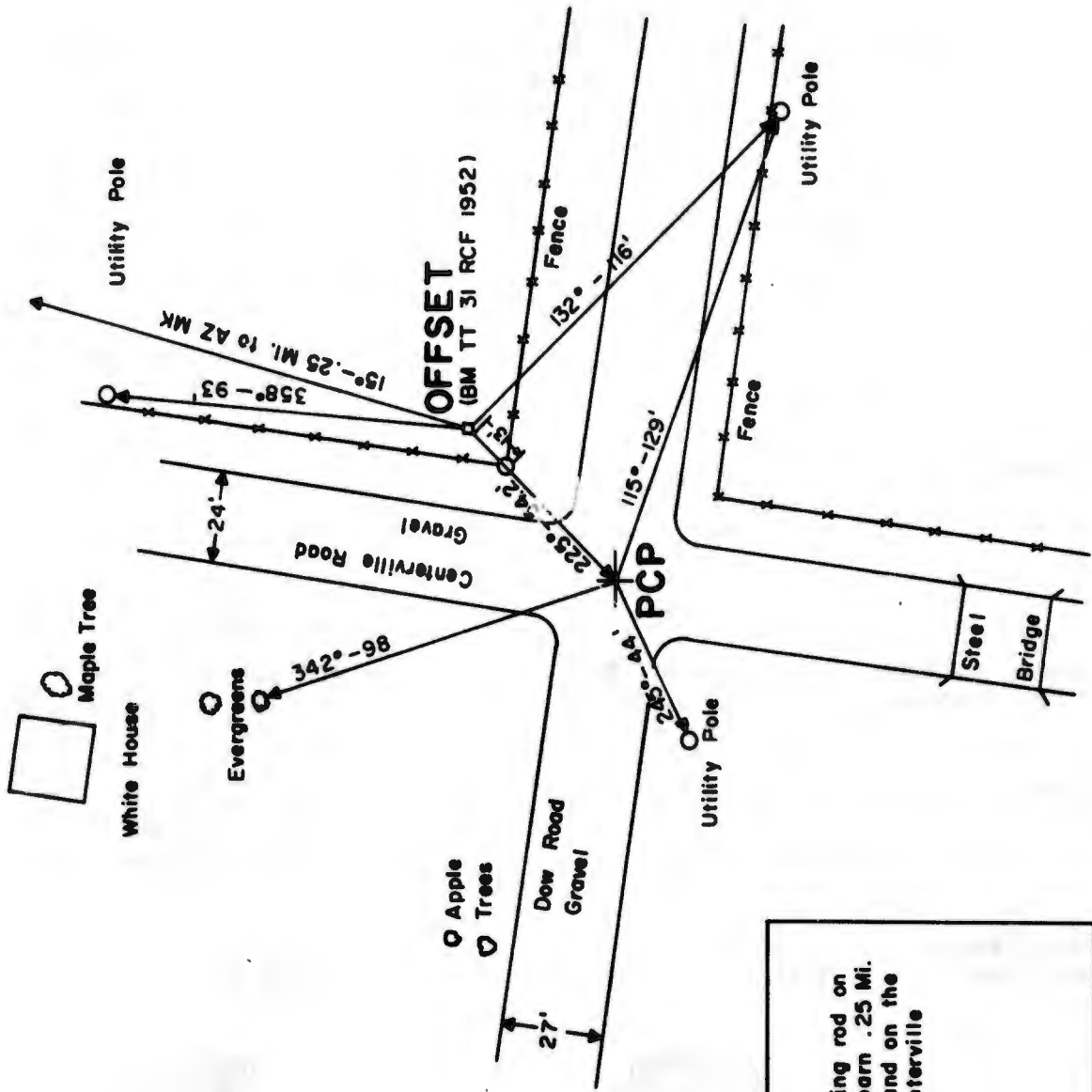
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 29' 32" 795 N	42° 29' 33" 205 N
NAD 1927: Longitude	78° 14' 58" 391 W	78° 14' 57" 928 W
Grid Coord: X	590,022.0	(Not Required)
(UTM) Y	908,265.7	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	516.13	515.99
SLD 1929 (Feet)	1693.3	1692.9

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	05° 28' 7	Not Required
PCP Offset to PCP	219° 52' 3	54.2

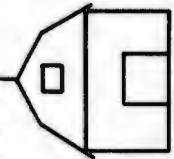
*Azimuth Mark Designation Lightning Rod

PCP 6-12

Scale: 1" = 40'
 Approx Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is BM listed below
 "PCP" is center of the
 intersection (SPIKE)



AZ MK is lightning rod on south end of barn .25 Mi. north of PCP and on the east side of Centerville Road.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 89
 Pg 9 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-13 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Canaseraga
 (Scale) 1:62,500

		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.:	Latitude	42° 20' 36"732 N	42° 20' 36"948 N
NAD 1927:	Longitude	77° 58' 00"264 W	77° 57' 59"631 W

Grid Coord: X	688,692.1	(Not Required)
(Mercator) Y	854,429.4	(Not Required)
Zone	New York-West	(Not Required)

Elevation (Meters)	649.68	650.37
SLD 1929 (Feet)	2131.5	2133.8

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*	29° 35'4	Not Required
ICP Offset to PCP	245° 17'6	52.4

*Azimuth Mark Designation 6-13B



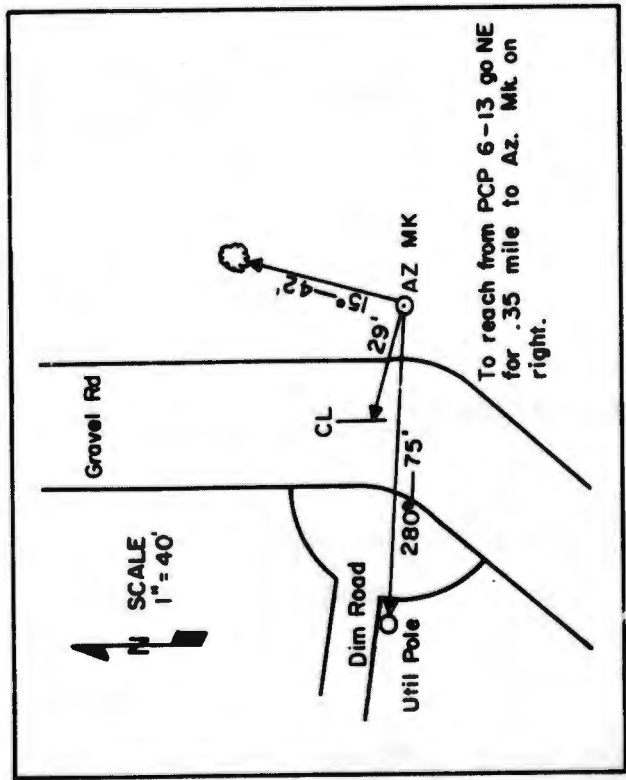
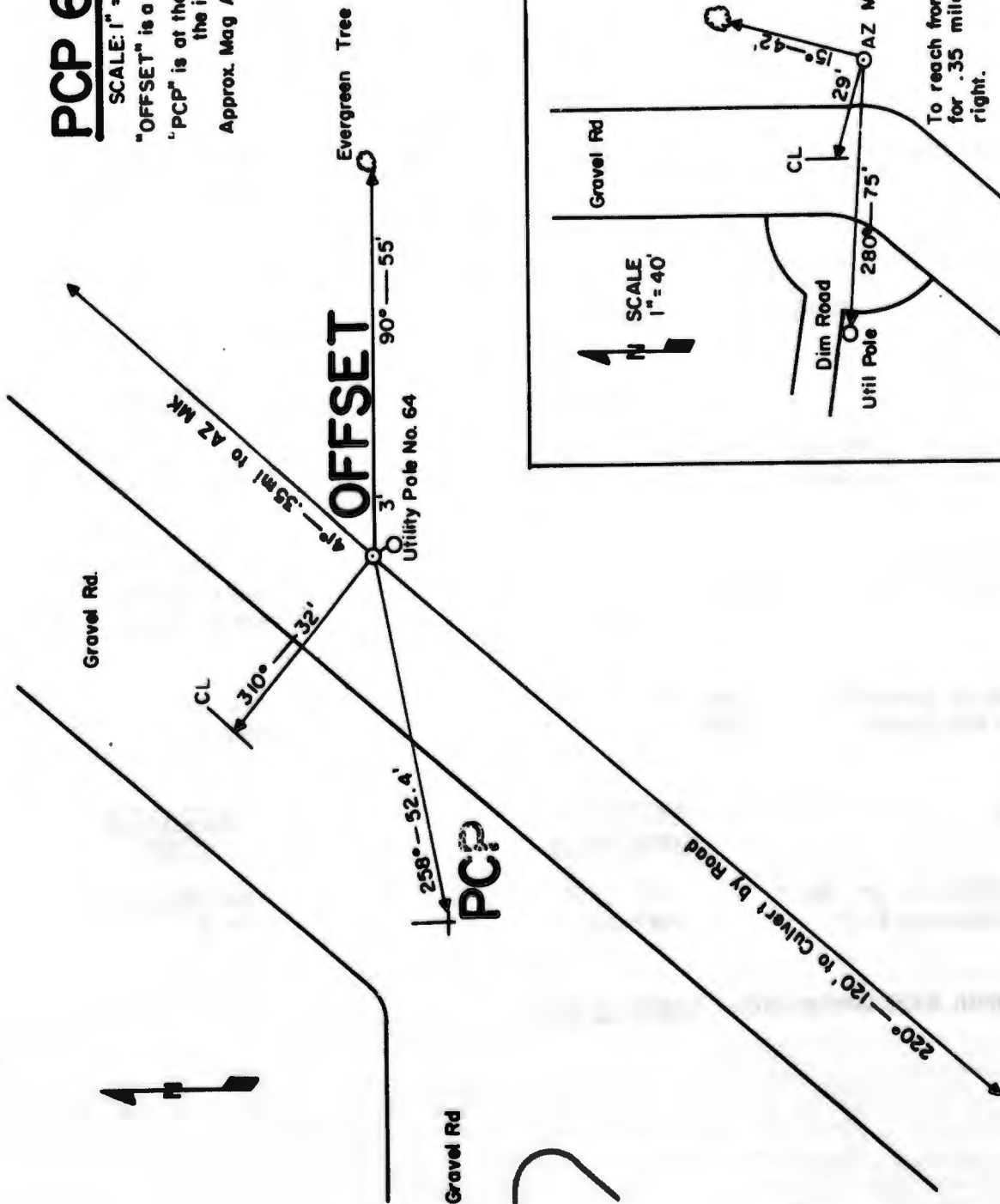
1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida
 bcc: 8-15

PCP 6-13

SCALE: 1" = 20'

"OFFSET" is a 1" x 16" pipe
 "PCP" is at the center of
 the int.

Approx. Mag Azimuth $\pm 5^\circ$



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 5
 Pg 5 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-14 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Nunda
 (Scale) 1:24,000

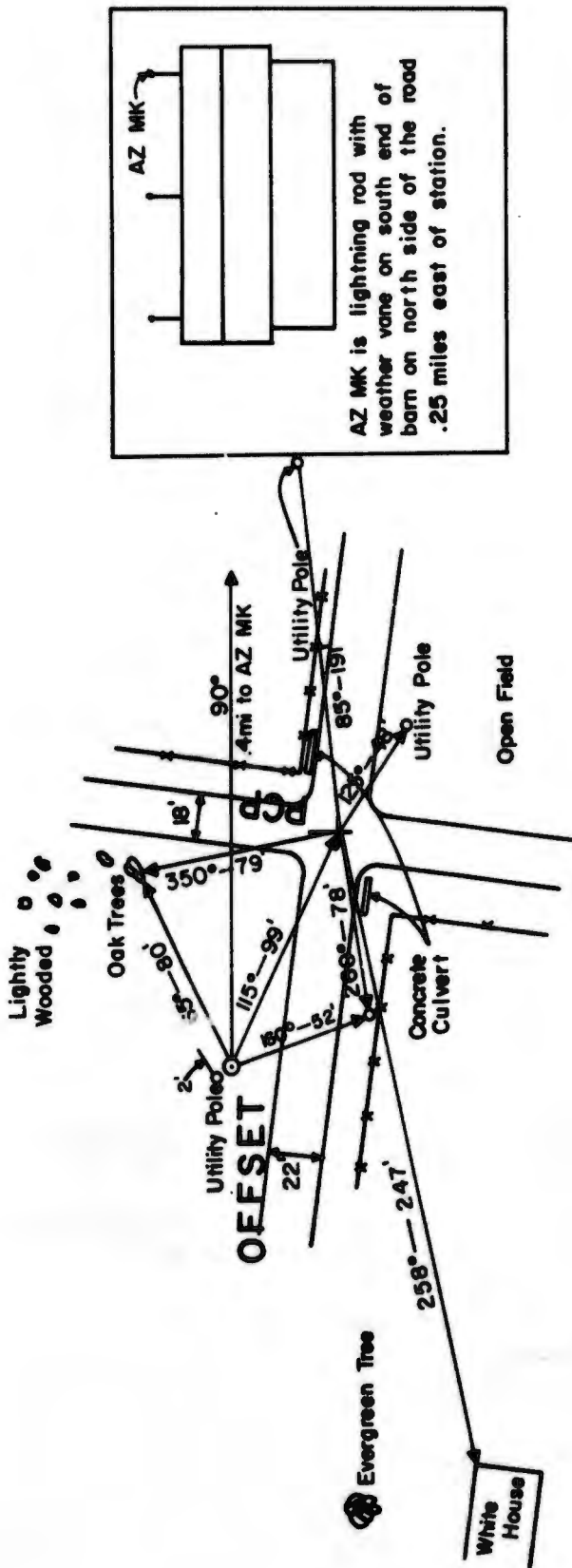
		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.:	Latitude	42° 31' 59"919 N	42° 32' 00"165 N
NAD 1927:	Longitude	77° 59' 07"467 W	77° 59' 08"743 W

Grid Coord: X	661,158.5	(Not Required)
(UTM) Y	923,550.0	(Not Required)
Zone	New York-West	(Not Required)

Elevation (Meters)	546.08	544.10
SLD 1929 (Feet)	1791.6	1785.1

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	83° 24'6	Not Required
PCP Offset to PCP	104° 33'1	98.8

*Azimuth Mark Designation Lightning Rod



PCP 6-14

SCALE 1" = 60'
 Approx. Mag. Azimuth ±5°
 "OFFSET" is a PK nail in south edge of sawed off utility pole.
 "PCP" is road intersection (Spikes monument)



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 90
 Pg 10 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

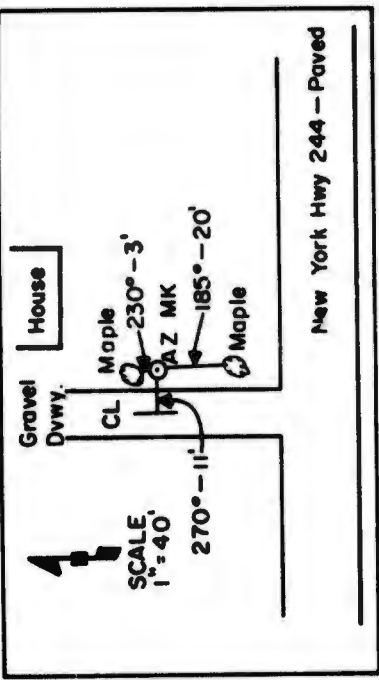
SUBRANGE: 6 PCP: 6-15 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Canaseraga
 (Scale) 1:62,500

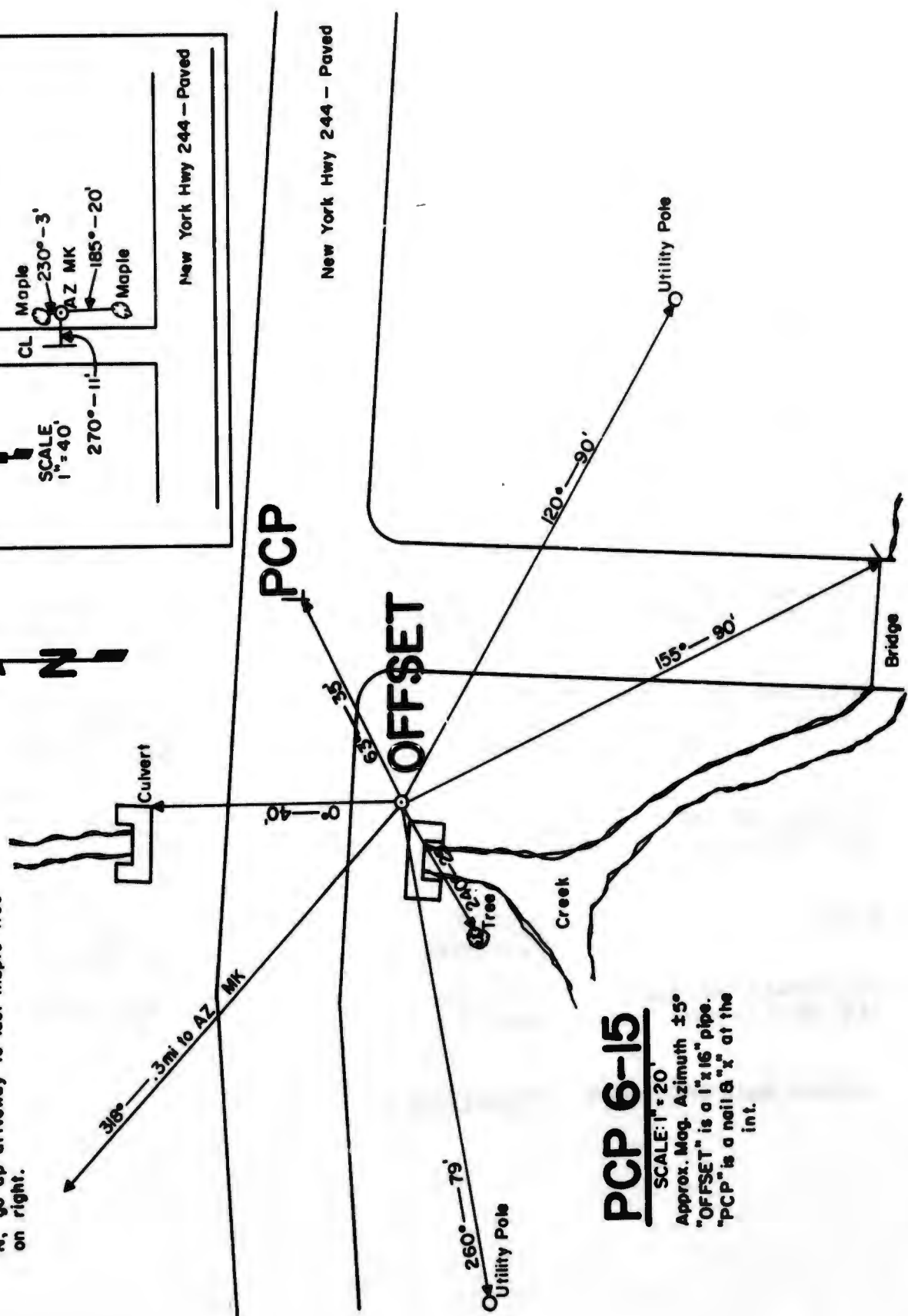
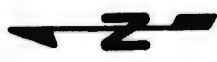
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 15' 15" 969 N	42° 15' 15" 748 N
NAD 1927: Longitude	77° 54' 55" 009 W	77° 54' 55" 359 W
Grid Coord: X	680,858.8	(Not Required)
(Mercator) Y	822,065.5	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	542.68	542.32
SLD 1929 (Feet)	1780.4	1779.3

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	306° 14' 6	Not Required
PCP Offset to PCP	49° 40' 5	34.5

*Azimuth Mark Designation 6-15B



To reach Az. Mk. from 6-15 PCP, go W. on NYS Hwy 244 0.25 mi. to driveway N, go up driveway to last maple tree on right.



PCP 6-15
SCALE: 1" = 20'
Approx. Mag. Azimuth ±5°
"OFFSET" is a 1" x 16" pipe.
"PCP" is a nail 8" x 1" at the int.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 6
 Pg 6 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-16 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Angelica
 (Scale) 1:62,500

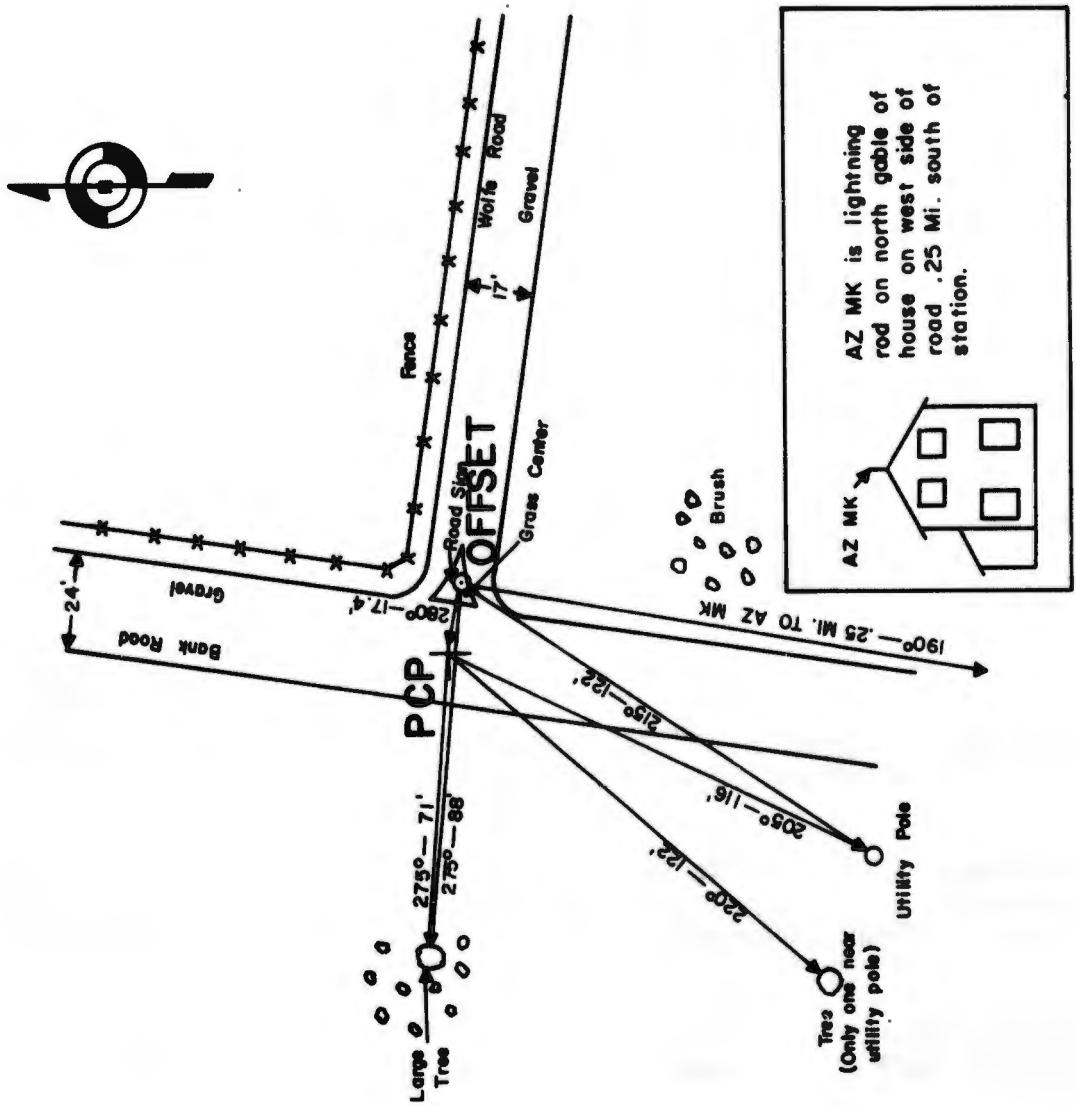
		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.:	Latitude	42° 31' 44"803 N	42° 31' 44"818 N
NAD 1927:	Longitude	78° 10' 16"925 W	78° 10' 16"694 W
Grid Coord:	X	611,044.0	(Not Required)
(UTM)	Y	921,721.2	(Not Required)
	Zone	New York-West	(Not Required)
Elevation (Meters)		512.88	512.36
SLD 1929 (Feet)		1682.7	1681.0

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	184° 28'2	Not Required
PCP Offset to PCP	264° 57'4	17.4

*Azimuth Mark Designation Lightning Rod

PCP 6-16

Scale: 1"=40'
 Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is 1" x 16" pipe
 "PCP" is road intersection
 (SPIKE)



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 91
 Pg 11 of 21 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-17 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Belmont
 (Scale) 1:62,500

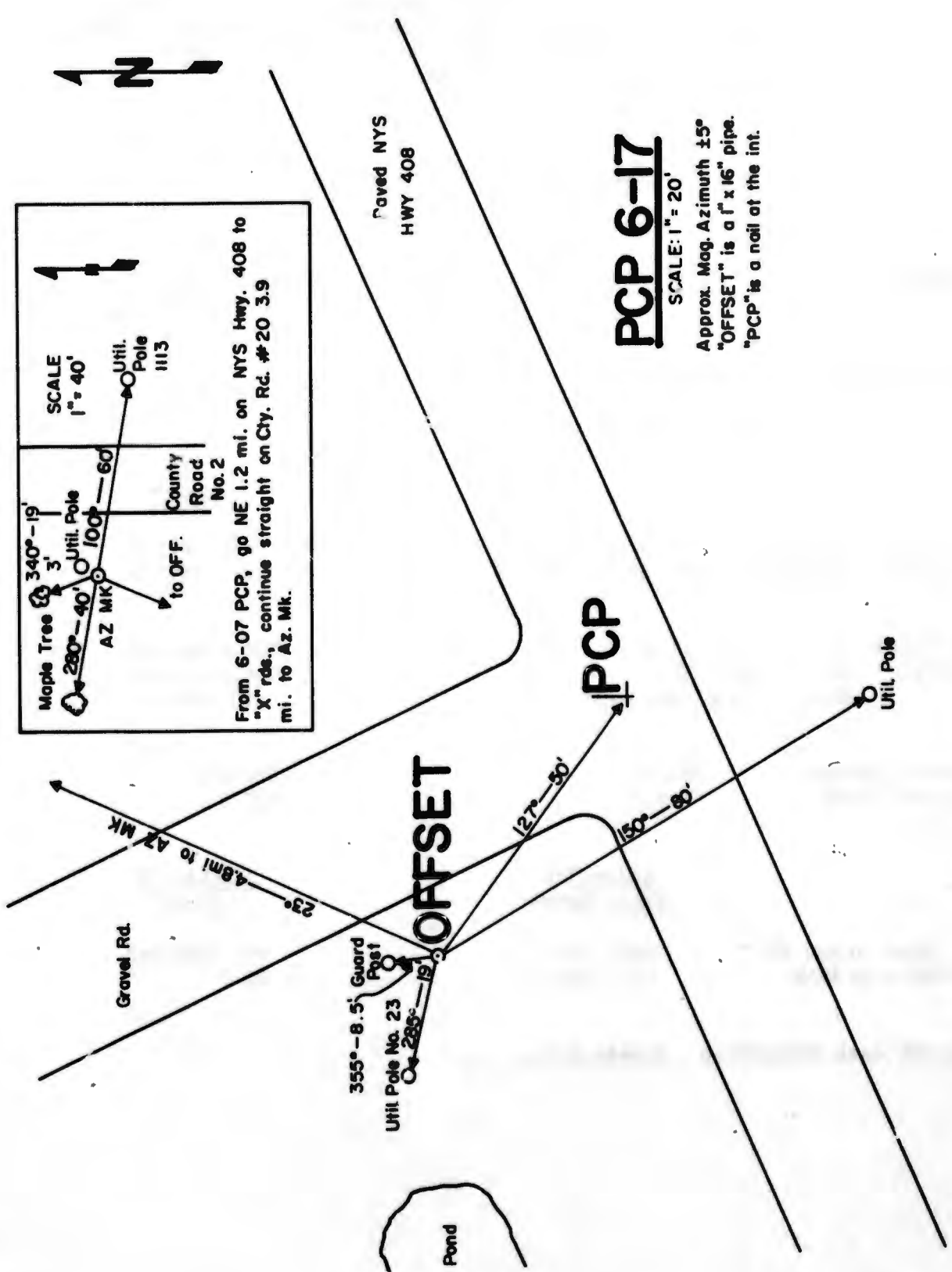
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 14' 41"883 N	42° 14' 42"089 N
NAD 1927: Longitude	78° 04' 32"025 W	78° 04' 32"636 W

Grid Coord: X	637,486.8	(Not Required)
(Mercator) Y	818,315.8	(Not Required)
Zone	New York-West	(Not Required)

Elevation (Meters)	425.62	425.21
SLD 1929 (Feet)	1396.4	1395.0

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
CP Offset to Az. Mk.*	35° 35'1	Not Required
PCP Offset to PCP	114° 21'6	50.5

*Azimuth Mark Designation 6-17B2



PCP 6-17

SCALE: 1" = 20'

Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail at the int.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 7
 Pg 7 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-18 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Nunda
 (Scale) 1:24,000

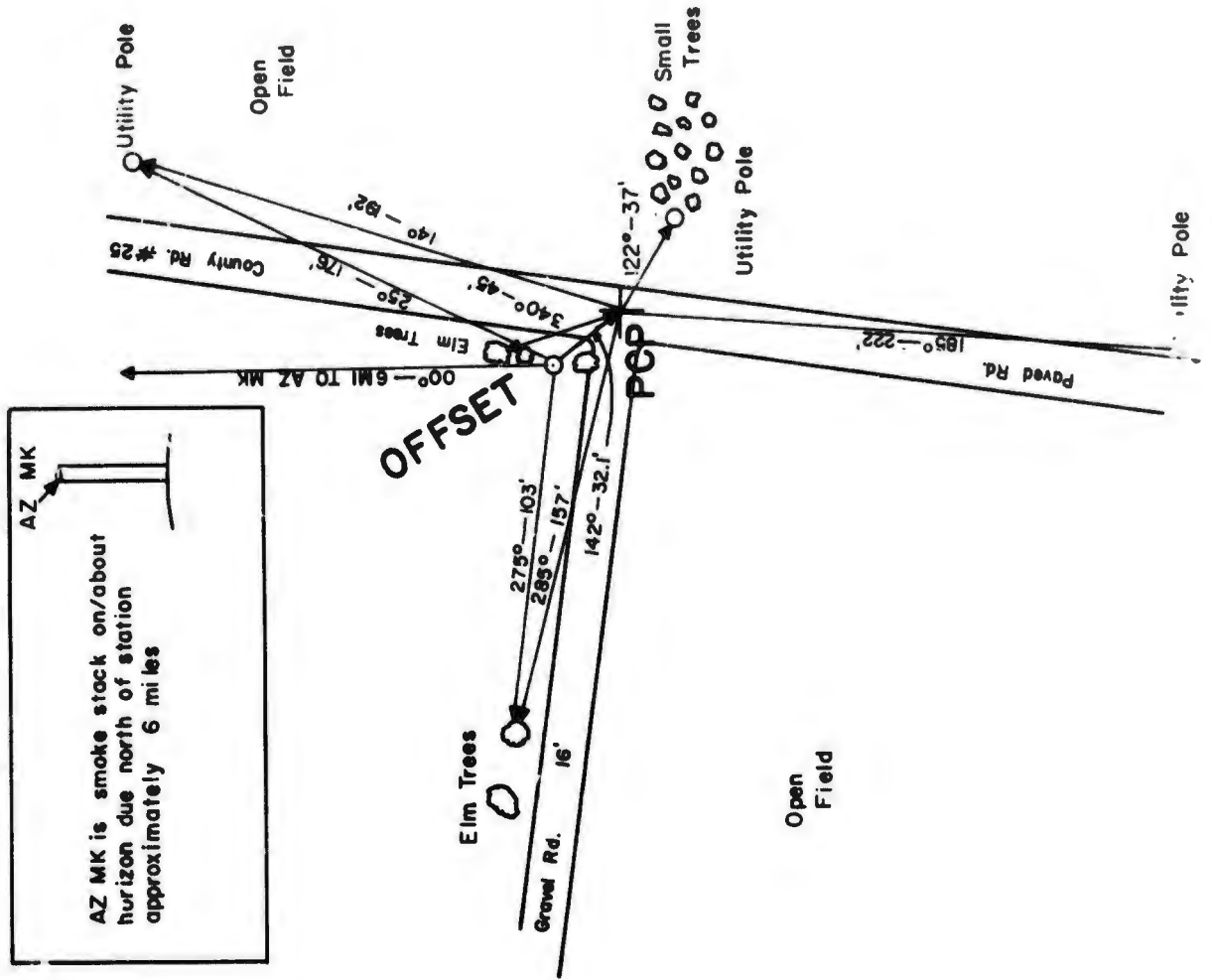
		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.:	Latitude	42° 36' 39"056 N	42° 36' 39"248
NAD 1927:	Longitude	77° 58' 27"907 W	77° 58' 28"249
Grid Coord:	X	663,917.2	(Not Required)
(UTM)	Y	951,827.8	(Not Required)
	Zone	New York-West	(Not Required)
Elevation (Meters)		383.63	383.21
SLD 1929 (Feet)		1258.6	1257.3

<u>LI</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*	344° 55' 5	Not Required
PCP Offset to PCP	127° 38' 8	32.1

*Azimuth Mark Designation Smoke Stack

PCP 6-18

Scale 1"=60'
 Approx. Mag Azimuth $\pm 5^\circ$
 "OFFSET" is 1" x 16" pipe
 "PCP" is road intersection
 (PK Nail)



AZ MK is smoke stack on/about horizon due north of station approximately 6 miles

1391ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 8
 Pg 8 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-19 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Castile
 (Scale) 1:24,000

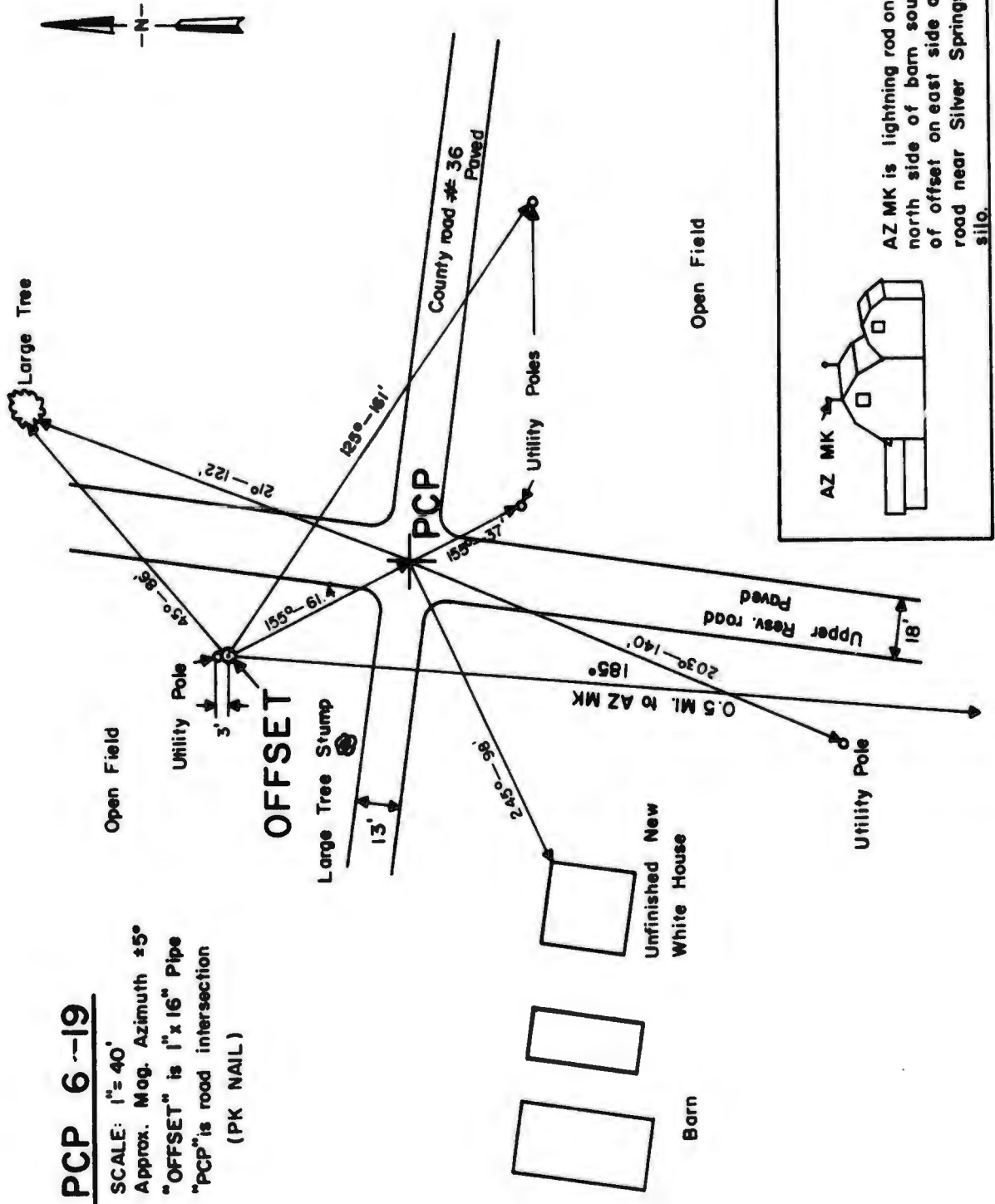
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 39' 32"064 N	42° 39' 32"575 N
NAD 1927: Longitude	78° 01' 06"809 W	78° 01' 07"251 W
Grid Coord: X	651,918.1	(Not Required)
(UTM) Y	969,258.9	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	457.86	458.52
SLD 1929 (Feet)	1502.2	1504.3

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*	173° 28'2	Not Required
PCP Offset to PCP	147° 22'4	61.4

*Azimuth Mark Designation Lightning Rod

PCP 6-19

SCALE: 1" = 40'
 Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is 1" x 16" Pipe
 "PCP" is road intersection
 (PK NAIL)



AZ MK is lightning rod on north side of barn south of offset on east side of road near Silver Springs silo.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 92
 Pg 12 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

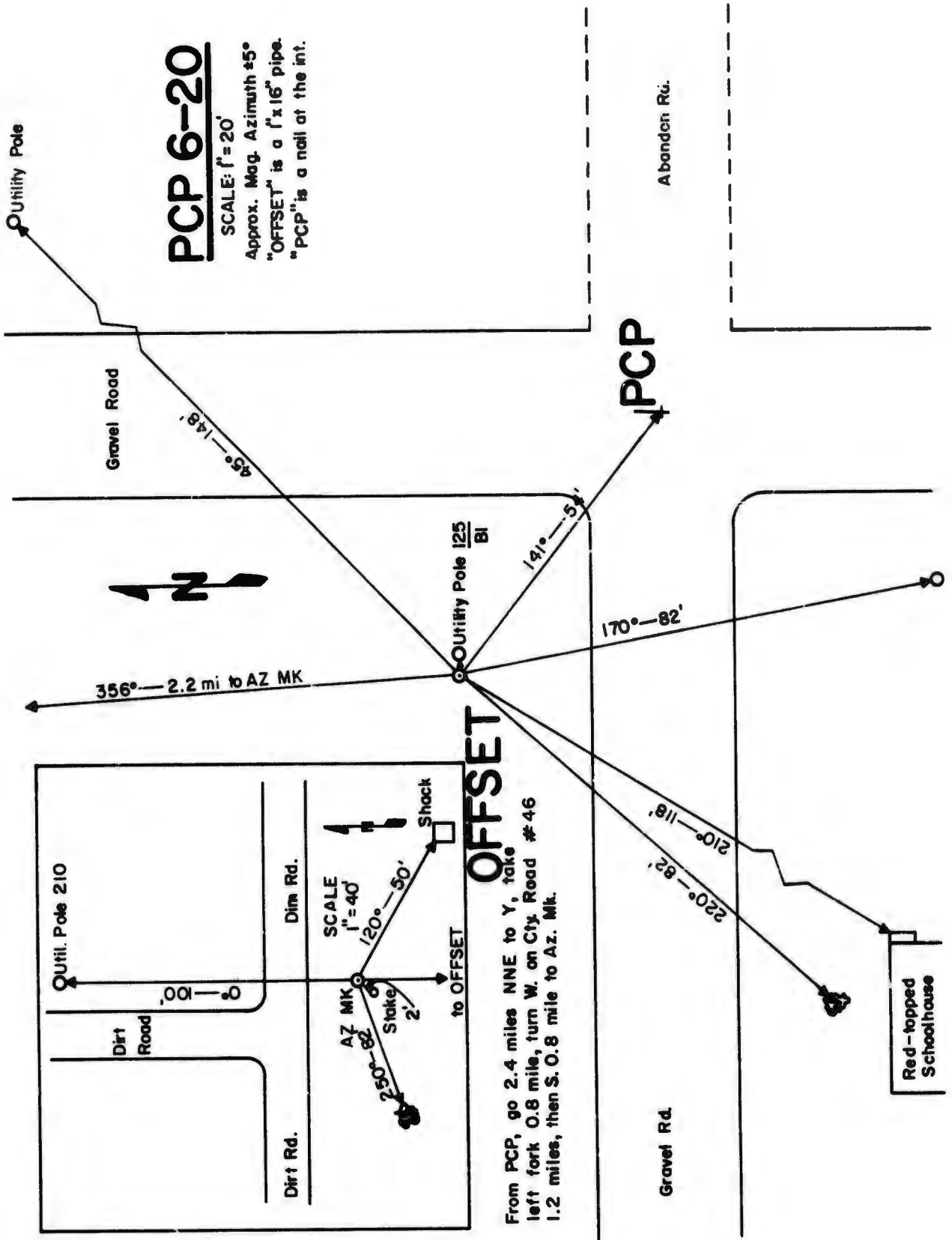
SUBRANGE: 6 PCP: 6-20 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Angelica
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 21' 50"148 N	42° 21' 50"476 N
NAD 1927: Longitude	78° 02' 26"265 W	78° 02' 26"826 W
Grid Coord: X	646,669.2	(Not Required)
(Mercator) Y	861,724.8	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	558.37	556.76
SLD 1929 (Feet)	1831.9	1826.6

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*	343° 23'9	Not Required
PCP Offset to PCP	128° 11'5	53.6

*Azimuth Mark Designation 6-20 C2



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 93
 Pg 13 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

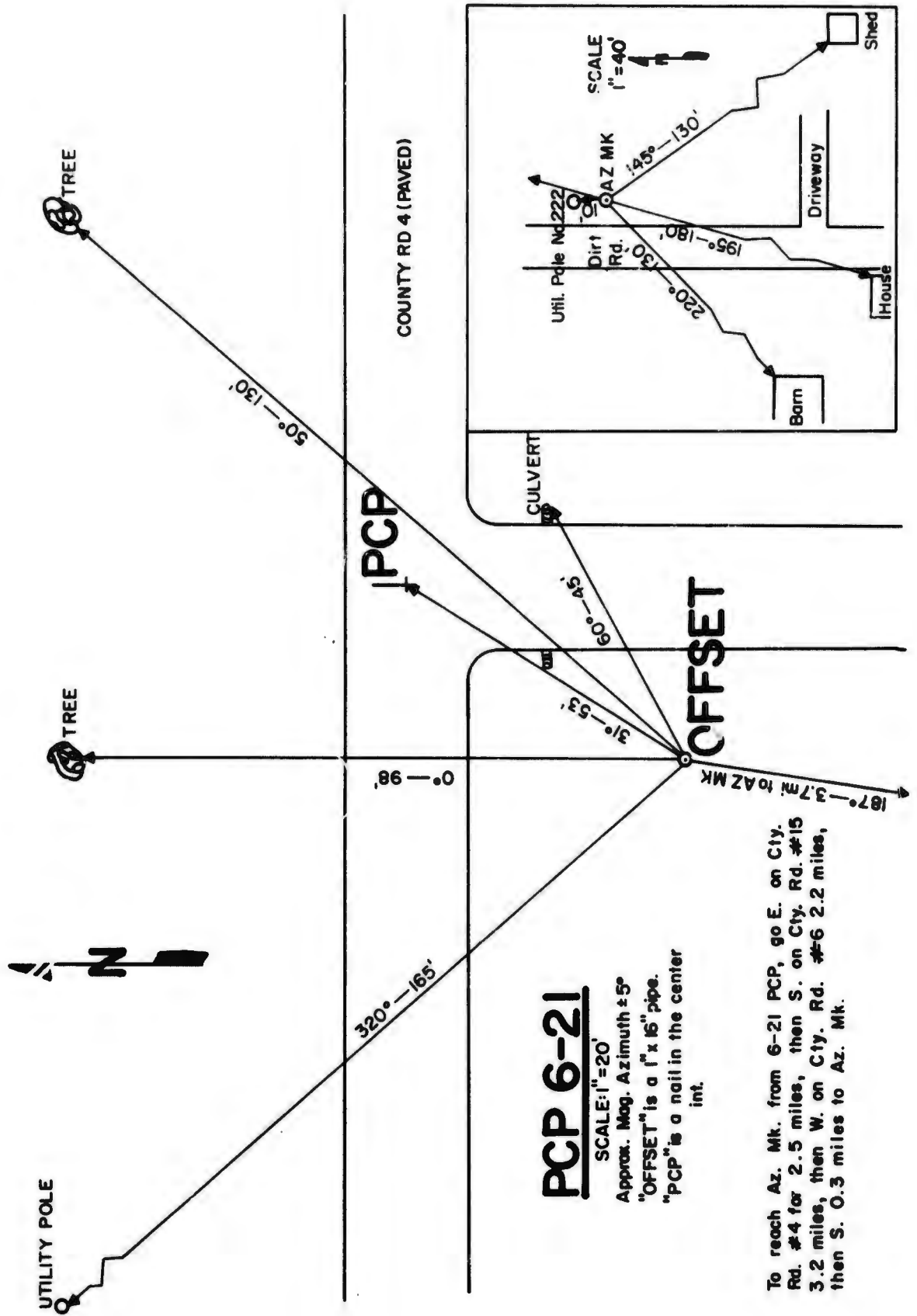
SUBRANGE: 6 PCP: 6-21 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Angelica
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 27' 07"114 N	42° 27' 06"617 N
NAD 1927: Longitude	78° 03' 33"809 W	78° 03' 34"032 W
Grid Coord: X	641,400.7	(Not Required)
(Mercator) Y	893,778.1	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	490.65	491.04
SLD 1929 (Feet)	1609.7	1611.0

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	173° 52'5	Not Required
PCP Offset to PCP	18° 19'0	53.2

*Azimuth Mark Designation 6-21-B2



PCP 6-21

SCALE: 1" = 20'
 Approx. Mag. Azimuth ± 5°
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail in the center int.

To reach Az. Mk. from 6-21 PCP, go E. on Cty. Rd. #4 for 2.5 miles, then S. on Cty. Rd. #15 3.2 miles, then W. on Cty. Rd. #6 2.2 miles, then S. 0.3 miles to Az. Mk.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 9
 Pg 9 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-22 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Warsaw
 (Scale) 1:24,000

		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.:	Latitude	42° 37' 49" 229 N	42° 37' 49" 458 N
NAD 1927:	Longitude	78° 08' 03" 939 W	78° 08' 03" 466 W
Grid Coord:	X	620,805.7	(Not Required)
(UTM)	Y	958,662.1	(Not Required)
	Zone	New York-West	(Not Required)
Elevation (Meters)		517.43	516.99
SLD 1929 (Feet)		1697.6	1696.2

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	355° 03' 7	Not Required
PCP Offset to PCP	236° 45' 5	42.2

*Azimuth Mark Designation Lightning Rod

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 10
 Pg 10 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-23 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Portageville
 (Scale) 1:24,000

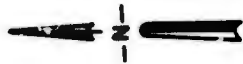
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 35' 42" 921 N	42° 35' 42" 204 N
NAD 1927: Longitude	78° 03' 38" 226 W	78° 03' 38" 323 W
Grid Coord: X	640,747.6	(Not Required)
(UTM) Y	945,990.6	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	415.83	415.72
SLD 1929 (Feet)	1364.3	1363.9

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*	259° 17' 6	Not Required
PCP Offset to PCP	05° 43' 8	73.0

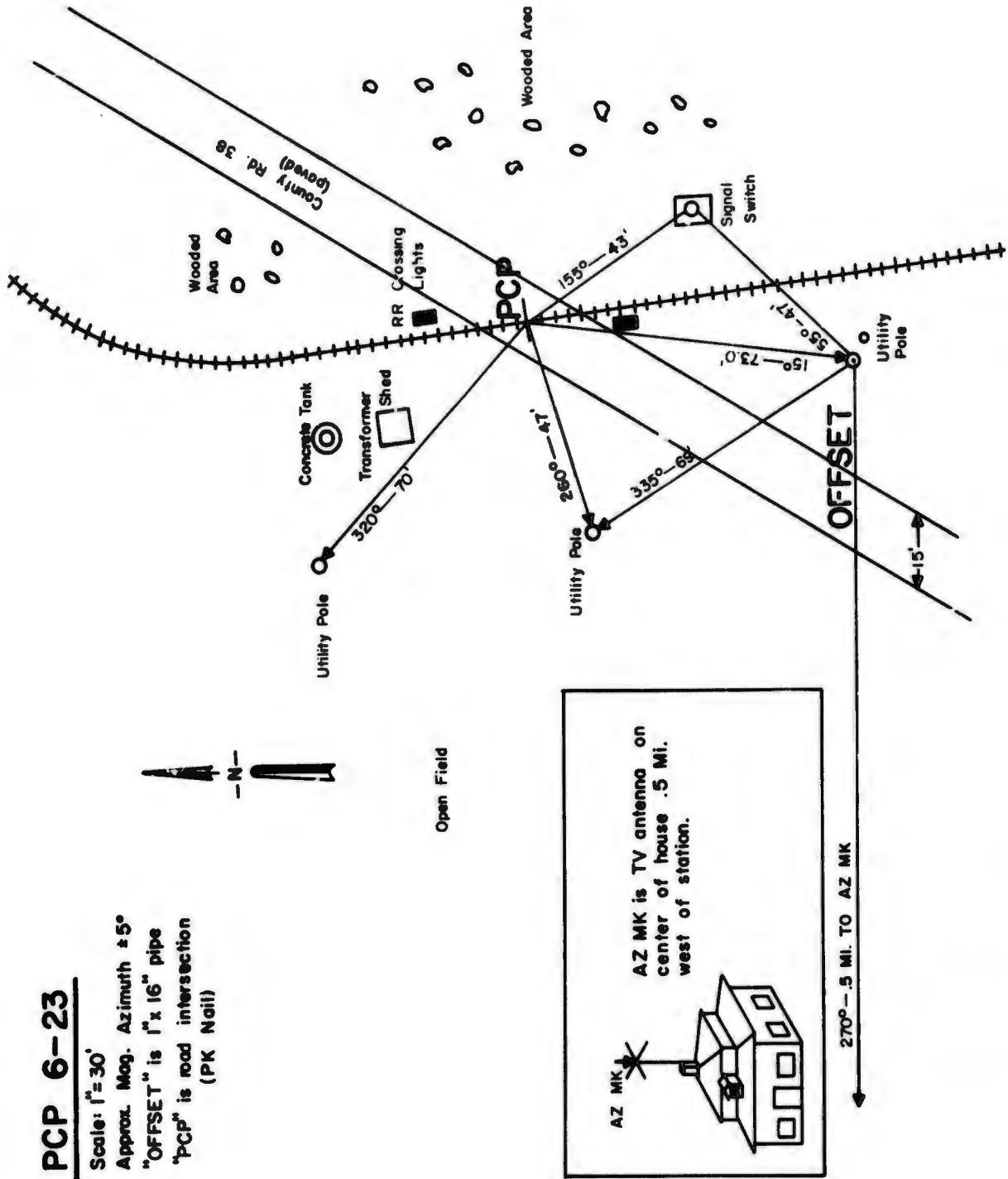
*Azimuth Mark Designation T.V. Antenna

PCP 6-23

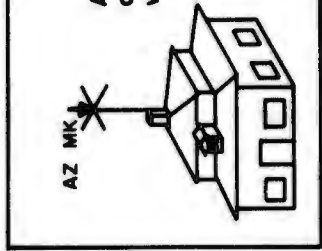
Scale: 1" = 30'
 Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is 1" x 16" pipe
 "PCP" is road intersection
 (PK Nail)



Open Field



AZ MK is TV antenna on center of house .5 Mi. west of station.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 11
 Pg 11 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-24 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Pike
 (Scale) 1:24,000

		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.:	Latitude	42° 37' 09" 860 N	42° 37' 09" 691 N
NAD 1927:	Longitude	78° 14' 08" 311 W	78° 14' 08" 698 W

Grid Coord: X	593,584.0	(Not Required)
(UTM) Y	954,548.6	(Not Required)
Zone	New York-West	(Not Required)

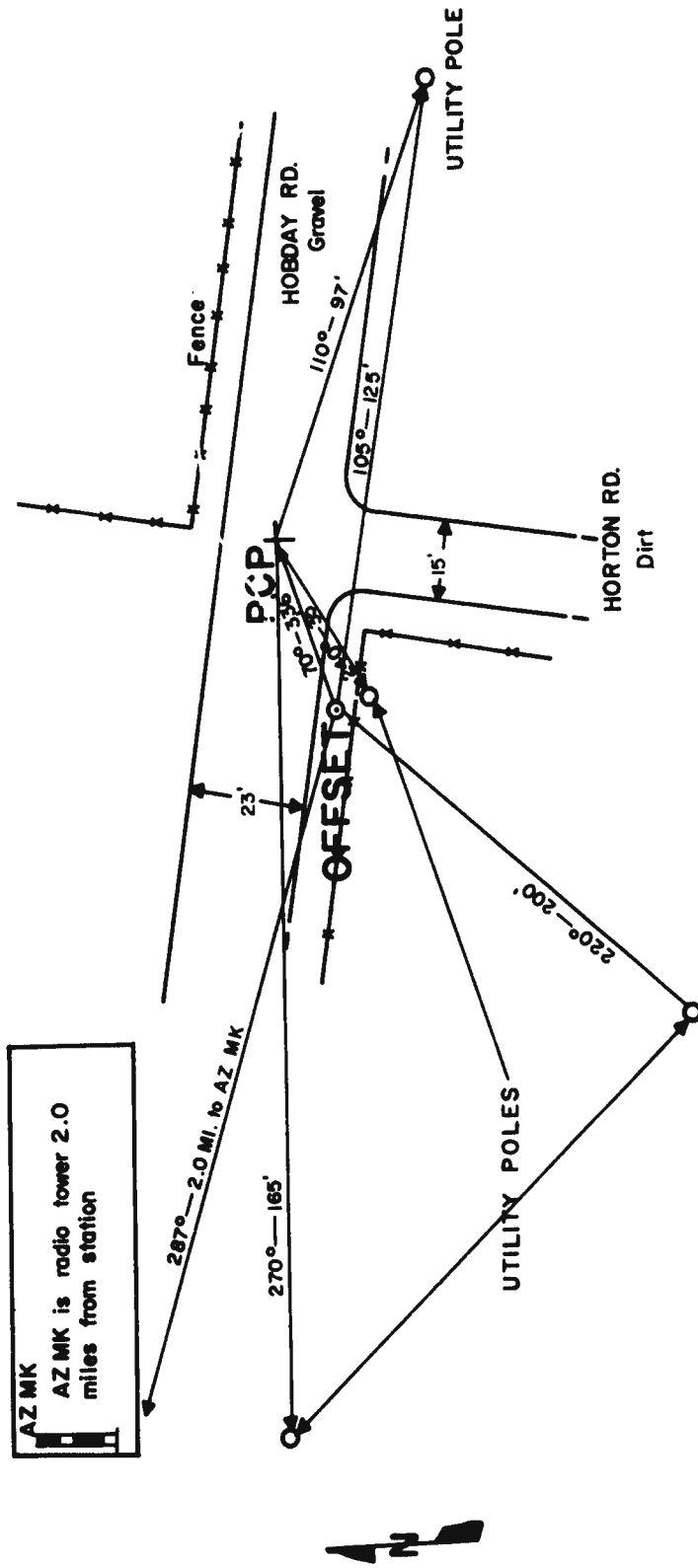
Elevation (Meters)	583.65	583.34
SLD 1929 (Feet)	1914.9	1913.8

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	276° 07' 7	Not Required
PCP Offset to PCP	59° 24' 6	33.6

*Azimuth Mark Designation Radio Tower

PCP 6-24

Scale 1" = 30'
 Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is 1" x .6" pipe
 "PCP" is road intersection (spike)



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 12
 Pg 12 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-25 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Arcade
 (Scale) 1:62,500

		<u>PCP</u>		<u>OFFSET</u>	
Geo. Pos.:	Latitude	42° 37'	17"474 N	42° 37'	17"677 N
NAD 1927:	Longitude	78° 21'	40"195 W	78° 21'	40"578 W

Grid Coord: X	559,796.3	(Not Required)
(UTM) Y	955,205.5	(Not Required)
Zone	New York-West	(Not Required)

Elevation (Meters)	555.43	555.95
SLD 1929 (Feet)	1822.3	1824.0

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	87° 47'8	Not Required
Offset to PCP	125° 46'3	35.2

*Azimuth Mark Designation Radio Tower

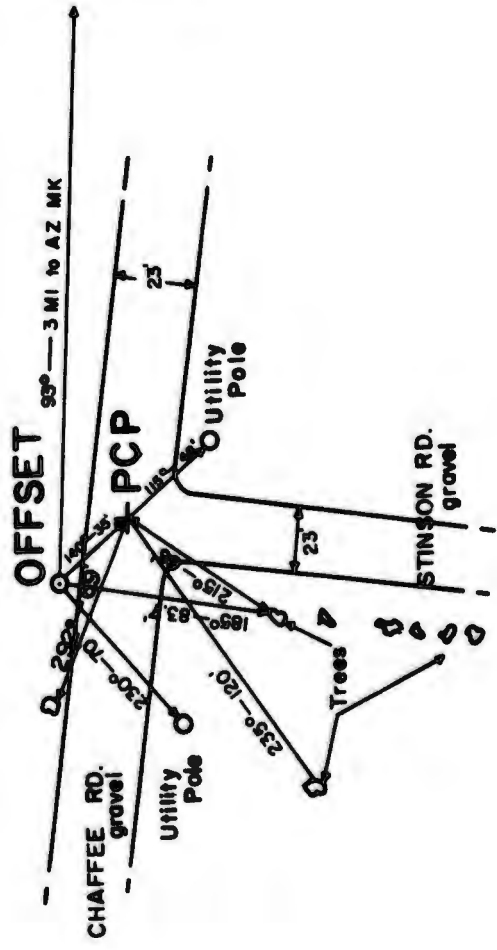
PCP 6-25

Scale 1" = 60'

Approx. Mag. Azimuth $\pm 5^\circ$

"OFFSET" is 1" x 16" pipe

"PCP" is road intersection (Spike)



AZ MK
 AZ MK is radio tower
 3.0 miles from station



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 13
 Pr 13 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-26 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Arcade
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 41' 03".691 N	42° 41' 03".942 N
NAD 1927: Longitude	78° 18' 30".787 W	78° 18' 31".410 W
Grid Coord: X	573,882.8	(Not Required)
(UTM) Y	978,147.1	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	509.70	509.52
SLD 1929 (Feet)	1672.3	1671.6

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*	89° 08.3	Not Required
PCP Offset to PCP	118° 37.9	53.1

*Azimuth Mark Designation Radio Tower

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 14
 Pg 14 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-28 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Dale
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 47' 20" 694 N	42° 47' 20" 478 N
NAD 1927: Longitude	78° 09' 49" 367 W	78° 09' 50" 178 W

Grid Coord: X	612,637.2	(Not Required)
(UTM) Y	1,016,471.6	(Not Required)
Zone	New York-West	(Not Required)

Elevation (Meters)	440.72	440.57
SLD 1929 (Feet)	1445.9	1445.4

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	273° 44' 2"	Not Required
PCP Offset to PCP	70° 06' 5"	64.3

*Azimuth Mark Designation Lightning Rod

PCP 6-28

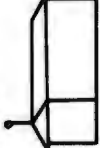
Scale: 1" = 30'

Approx. Mag. Azimuth ± 5°

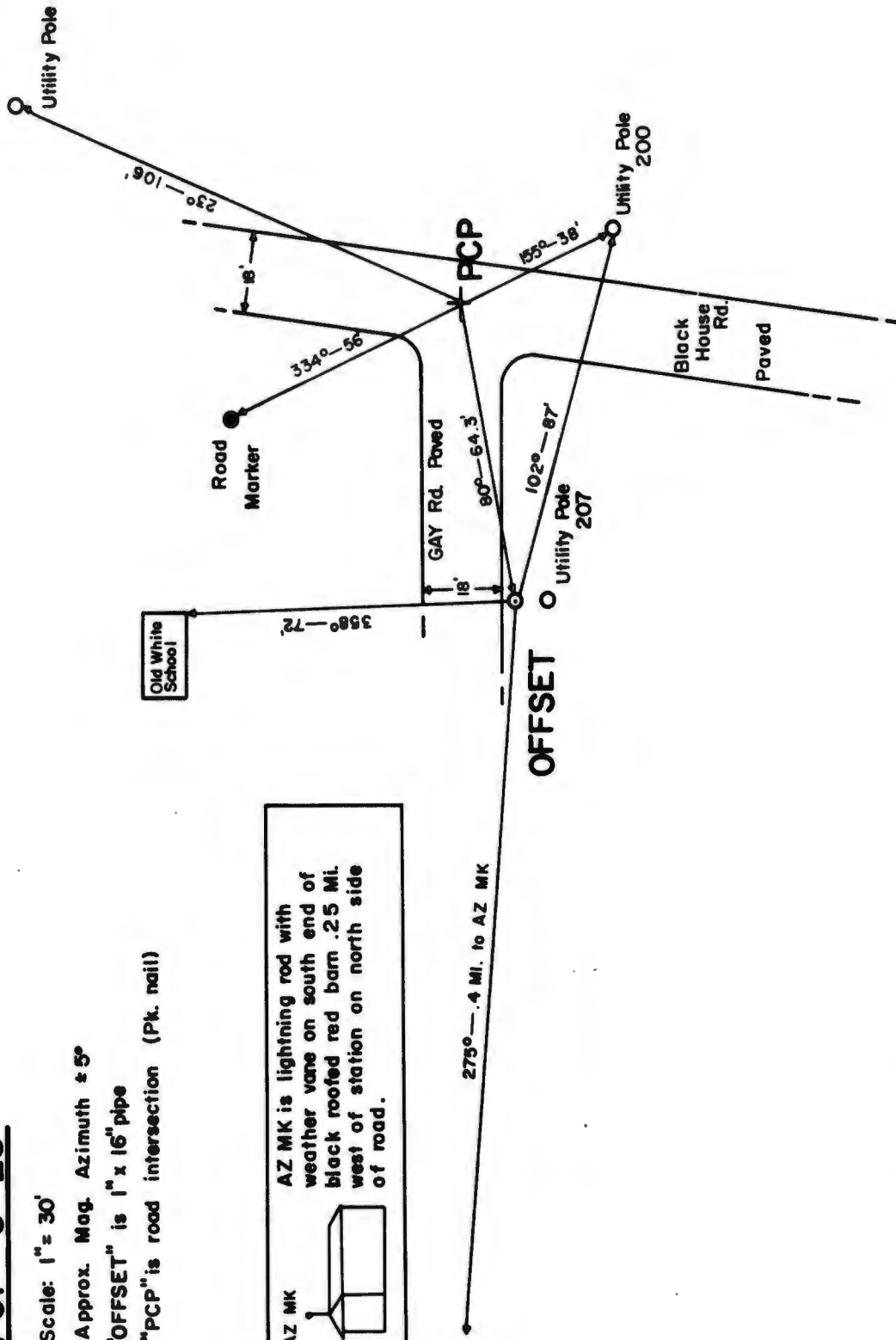
"OFFSET" is 1" x 16" pipe

"PCP" is road intersection (Pk. nail)

AZ MK



AZ MK is lightning rod with weather vane on south end of black roofed red barn .25 Mi. west of station on north side of road.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 15
 Pg 15 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

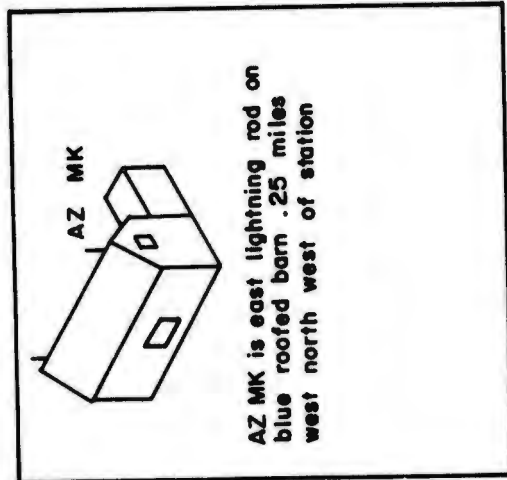
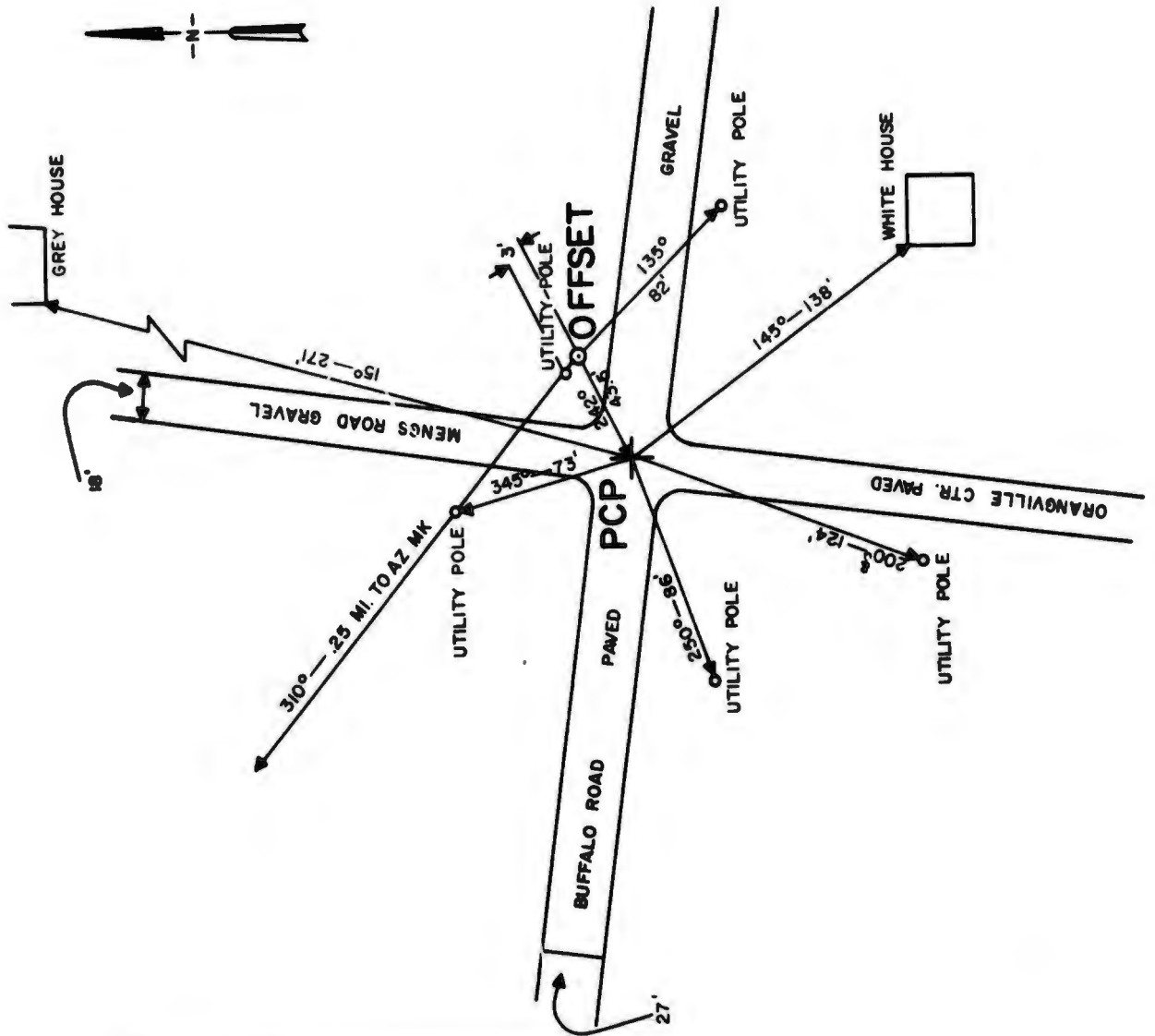
SUBRANGE: 6 PCP: 6-29 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) _____ Dale _____
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 46' 17"794 N	42° 46' 18"048 N
NAD 1927: Longitude	78° 14' 56"161 W	78° 14' 55"690 W
Grid Coord: X	589,787.0	(Not Required)
(UTM) Y	1,010,001.9	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	506.16	506.27
SLD 1929 (Feet)	1660.6	1661.0

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*	303° 30'9	Not Required
PCP Offset to PCP	233° 50'3	43.5

*Azimuth Mark Designation Lightning Rod



PCP 6-29

SCALE: 1"=60'
 Approx. Mag Azimuth ±5°
 "OFFSET" is 1" x 16" pipe
 "PCP" is road intersection (PK NAIL)

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 16
 Pg 16 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

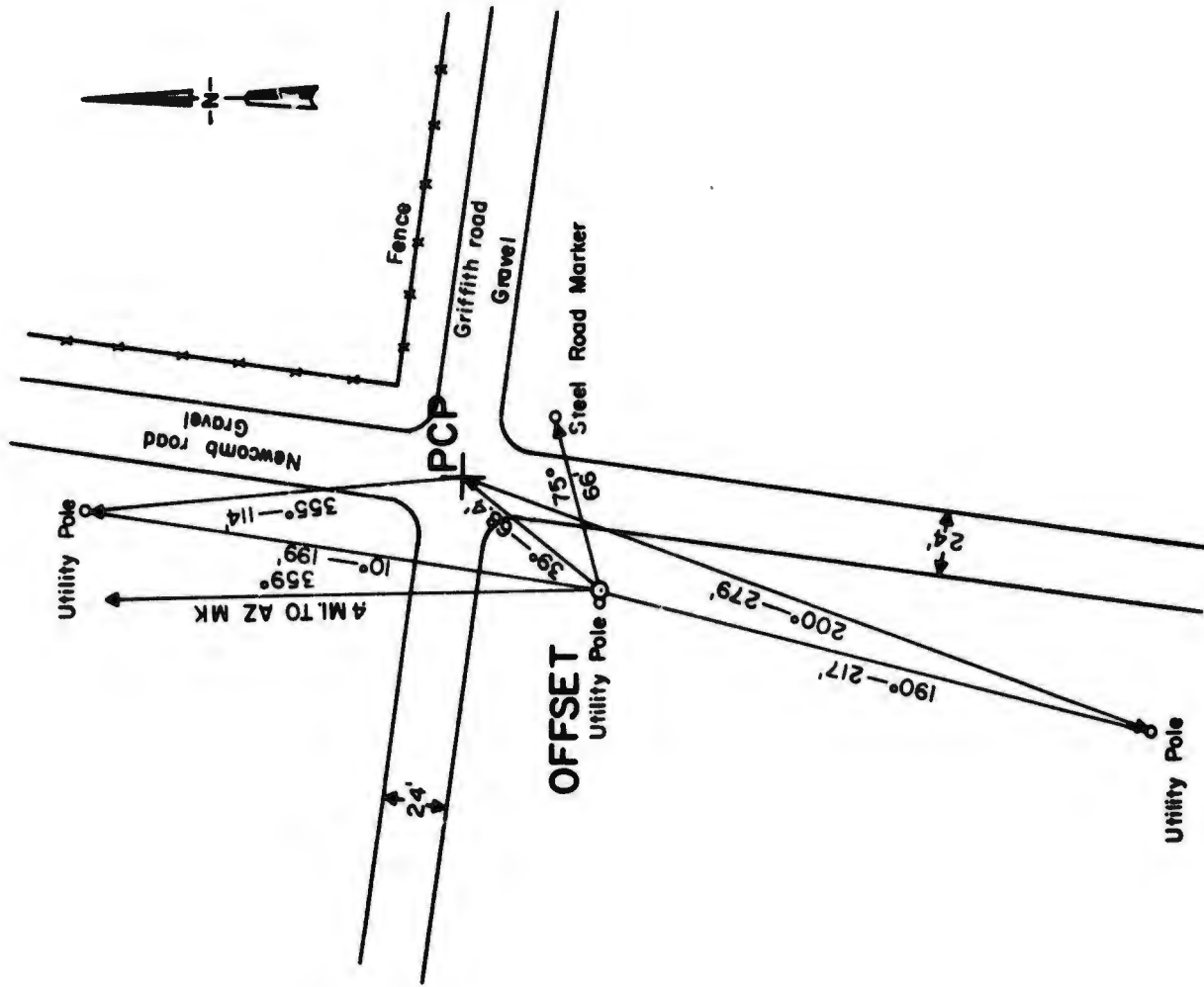
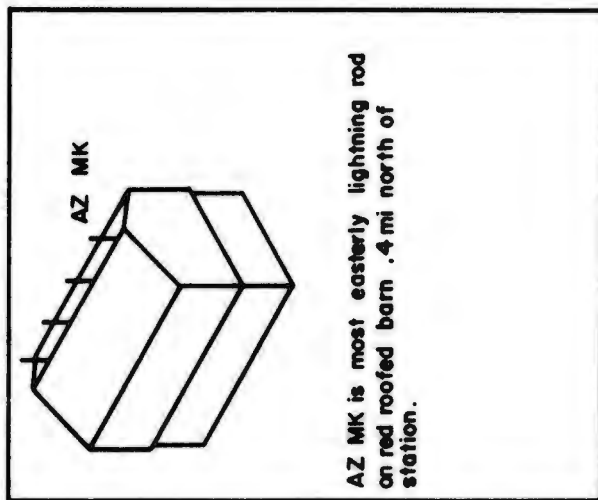
SUBRANGE: 6 PCP: 6-30 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Pike
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 33' 53"401 N	42° 33' 52"806 N
NAD 1927: Longitude	78° 08' 01"862 W	78° 08' 02"292 W
Grid Coord: X	621,087.7	(Not Required)
(UTM) Y	934,790.3	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	528.88	528.74
SLD 1929 (Feet)	1735.2	1734.7

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*	356° 13'7	Not Required
PCP Offset to PCP	28° 04'7	68.4

*Azimuth Mark Designation Lightning Rod



PCP 6-30

SCALE: 1"=60'
 Approx. Mag. Azimuth ±5°
 "OFFSET" is 1" x 16" Pipe
 "PCP" is road intersection
 (SPIKE)

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 94
 Pg 14 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 (BIRDSALL OFFSET) PCP: 6-51 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Canaseraga
 (Scale) 1:62,500

	<u>PCP</u>	<u>(BIRDSALL OFFSET)</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42°	23'	51"858 N
NAD 1927: Longitude	77°	52'	24"882 W

Grid Coord: X	691,713.0	(Not Required)
(Mercator) Y	874,377.5	(Not Required)
Zone	New York-West	(Not Required)

Elevation (Meters) 656.26
 SLD 1929 (Feet) 2153.1

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

P: PDS NO. 95
 Pg 15 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-52 (BAKER OFFSET) PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Canaseraga
 (Scale) 1:62,500

	<u>PCP</u>	<u>(BAKER OFFSET)</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 16' 09"074 N		
NAD 1927: Longitude	77° 58' 56"845 W		
Grid Coord: X	662,634.4		(Not Required)
(Mercator) Y	827,305.6		(Not Required)
Zone	New York-West		(Not Required)
Elevation (Meters)	649.80		
SLD 1929 (Feet)	2131.9		

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 96
 Pg 16 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: (BELFAST) 6-53 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Angelica
 (Scale) 1:62,500

	<u>PCP</u>	<u>(BELFAST)</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 16' 39"752		
NAD 1927: Longitude	78° 05' 55"132		
Grid Coord: X			(Not Required)
Y			(Not Required)
Zone			(Not Required)
Elevation (Meters)	632.31		
SLD 1929 (Feet)	2074.5		

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 97
 Pg 17 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-54 (AMIDON OFFSET) PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Canaseraga
 (Scale) 1:62,500

		<u>PCP</u>	<u>(AMIDON OFFSET)</u>	<u>OFFSET</u>
Geo. Pos.:	Latitude	42° 21' 42".972 N		
NAD 1927:	Longitude	77° 56' 29".183 W		

Grid Coord: X	673,481.3	(Not Required)
(Mercator) Y	861,185.1	(Not Required)
Zone	New York-West	(Not Required)

Elevation (Meters)	659.75
SLD 1929 (Feet)	2164.5

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
UNITED STATES AIR FORCE
Orlando AFB, Florida

PCPDS NO. 98
Pg 18 of 21 pgs
Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

(VAN BUSKIRK OFFSET)
SUBRANGE: 6 PCP: 6-55 PROJECT RADC 6512
AF64-RAD 6

QUADRANGLE: (Name) Angelica
(Scale) 1:62,500

PCP (VAN BUSKIRK OFFSET) OFFSET

Geo. Pos.: Latitude 42° 23' 45" 195 N
NAD 1927: Longitude 78° 03' 09" 197 W

Grid Coord: X 643,373.5 (Not Required)
(Mercator) Y 873,350.1 (Not Required)
Zone New York-West (Not Required)

Elevation (Meters) 601.66
SLD 1929 (Feet) 1973.9

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 99
 Pg 19 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: (FRENCH HILL) 6-56 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Nunda
 (Scale) 1:62,500

	<u>PCP</u>	<u>(FRENCH HILL)</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 30' 16"035		
NAD 1927: Longitude	77° 54' 17"716		
Grid Coord: X			(Not Required)
Y			(Not Required)
Zone			(Not Required)
Elevation (Meters)	617.53		
SLD 1929 (Feet)	2026.0		

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 100
 Pg 20 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: (JERSEY) 6-57 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Canaseraga
 (Scale) 1:62,500

	<u>PCP</u>	<u>(JERSEY)</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 21' 07"466		
NAD 1927: Longitude	77° 52' 30"442		
Grid Coord: X			(Not Required)
Y			(Not Required)
Zone			(Not Required)
Elevation (Meters)	686.52		
SLD 1929 (Feet)	2252.4		

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 101
 Pg 21 of 21 pgs
 Date: 24 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: (HANNEMAN) 6-58 Off-set to Az. Mk. 2
 PROJECT RADC 6512
 AF64-RAD 6

QUADRANGLE: (Name) Canaseraga
 (Scale) 1:62,500

	<u>PCP</u>	<u>(HANNEMAN)</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42 ^D 15' 54"908		
NAD 1927: Longitude	77 ^C 50' 48"021		
Grid Coord: X			(Not Required)
Y			(Not Required)
Zone			(Not Required)

Elevation (Meters) 708.37
 SLD 1929 (Feet) 2324.07

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*		Not Required
PCP Offset to PCP		

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 17
 Pg 17 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-59 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Angelica
 (Scale) 1:62,500

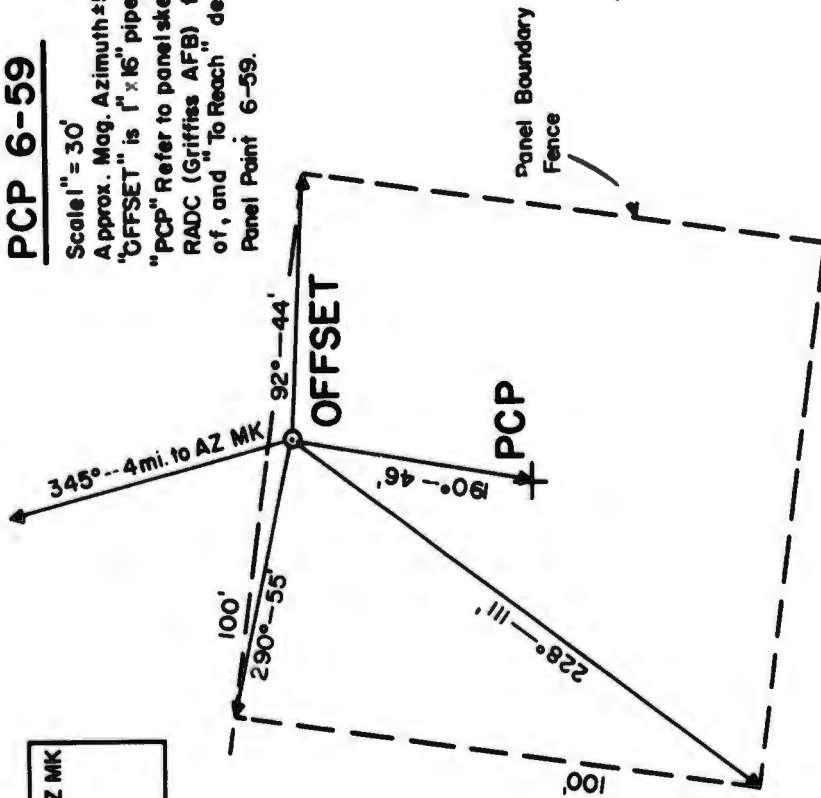
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 27' 42"658	42° 27' 43"110
NAD 1927: Longitude	78° 09' 59"909	78° 09' 59"845
Grid Coord: X	612,438.5	(Not Required)
(UTM) Y	897,215.7	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	506.17	506.31
SLD 1929 (Feet)	1660.7	1661.1

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	339° 20'5	Not Required
PCP Offset to PCP	185° 59'2	46.0


*Azimuth Mark Designation Radio Tower

PCP 6-59

Scale 1" = 30'
 Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is 1" x 16" pipe
 "PCP" Refer to panel sketches prepared by
 RADC (Griffiss AFB) for measurements
 of, and "To Reach" description for
 Panel Point 6-59.



AZ MK is radio tower 4 Mi.
 north west from station




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1381ST GEODETIC SURVEY SQUADRON
AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
UNITED STATES AIR FORCE
Orlando AFB, Florida

PCPDS NO. 18
Pg 18 of 29 pgs
Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-60

PROJECT RADC 6512
AF64-RAD 6A

QUADRANGLE: (Name) Portageville
(Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 34' 18" 214 N	Not Required
NAD 1927: Longitude	78° 04' 53" 133 W	Not Required
Grid Coord: X	635,195.7	(Not Required)
Y	937,381.4	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	484.68	(Not Required)
SLD 1929 (Feet)	1590.2	(Not Required)

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	Not Required	Not Required
PCP Offset to PCP	Not Required	Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 19
 Pg 19 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-61 PROJECT RADC 6512
 AF64-RAD 6A


QUADRANGLE: (Name) Pike
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 34' 03" 783 N	42° 34' 04" 105 N
NAD 1927: Longitude	78° 14' 50" 114 W	78° 14' 50" 095 W
Grid Coord: X	590, 533.4	(Not Required)
(UTM) Y	935, 699.6	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	612.05	611.93
SLD 1929 (Feet)	2008.0	2007.6

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	330° 51' 6"	Not Required
PCP Offset to PCP	182° 07' 2"	32.6

*Azimuth Mark Designation Radio Tower

AZ MK



AZ MK is radio tower west north west
of station approximately 4.5 miles

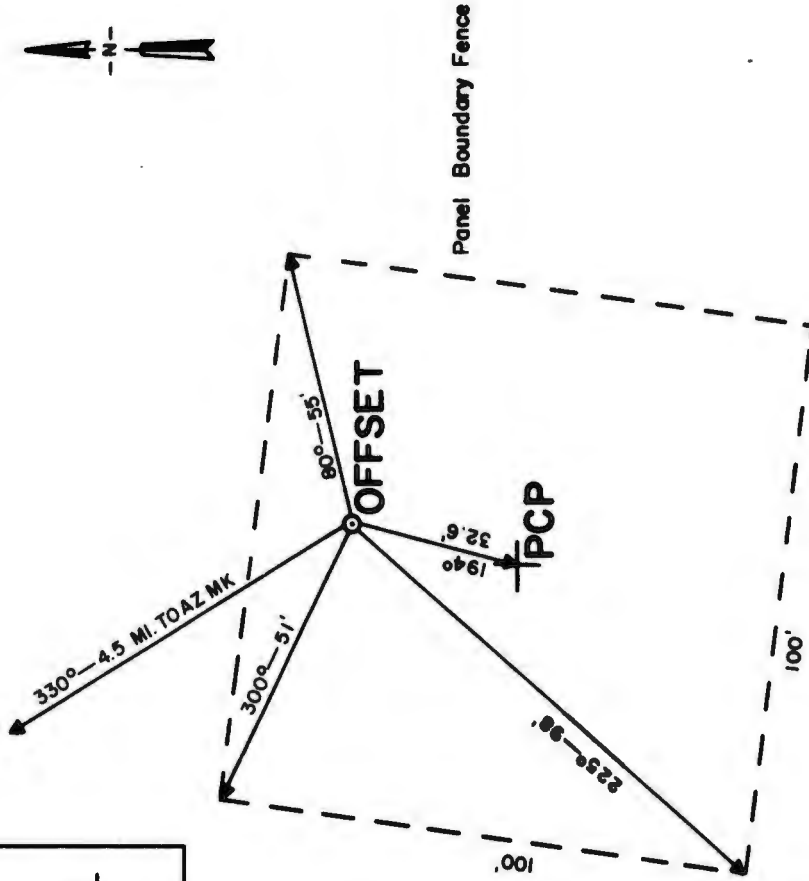
PCP 6-61

Scale: 1" = 30'

Approx. Mag. Azimuth $\pm 5^\circ$

"OFFSET" is 1" x 16" Pipe

"PCP"—Refer to panel sketches for
measurements of, and "To Reach"
description for panels. (Prepared by
RADC)



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 20
 Pg 20 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

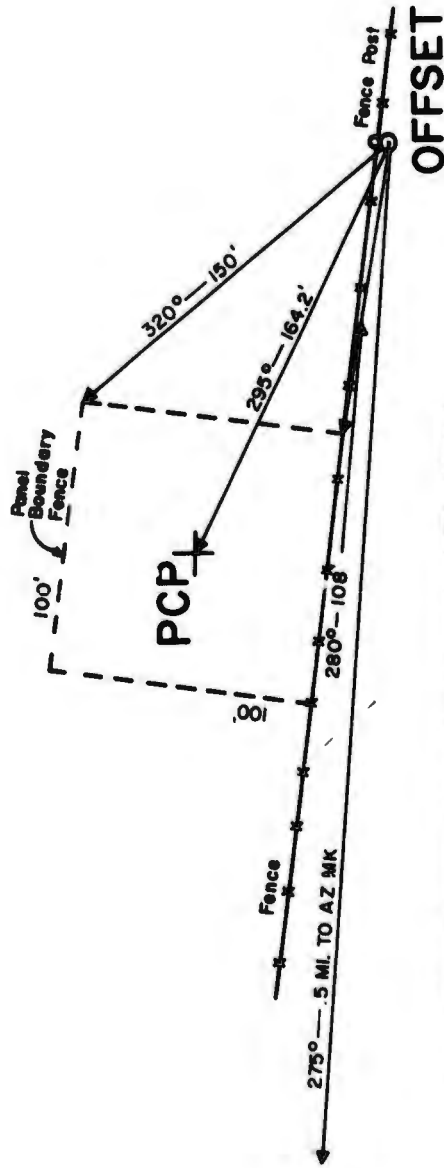
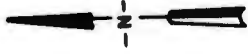
SUBRANGE: 6 PCP: 6-62 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Arcade
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 33' 16" 478 N	42° 33' 15" 962 N
NAD 1927: Longitude	78° 18' 43" 763 W	78° 18' 41" 683 W
Grid Coord: X	573,065.2	(Not Required)
Y	930,848.3	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	551.41	557.48
SLD 1929 (Feet)	1809.1	1829.0

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	263° 44' 3"	Not Required
PCP Offset to PCP	288° 33' 0"	164.2

*Azimuth Mark Designation Lightning Rod



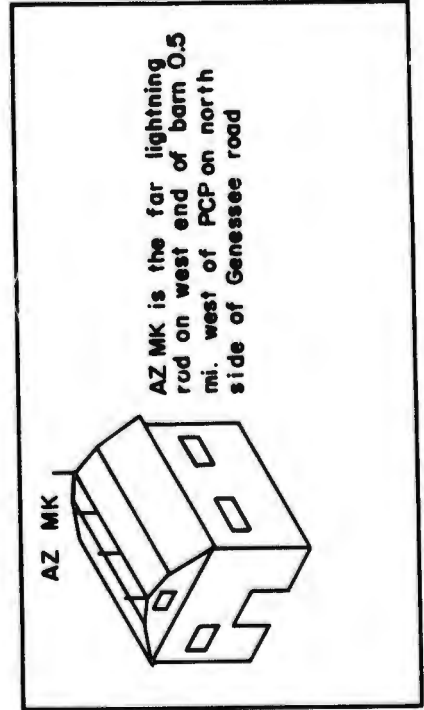
PCP 6-62

SCALE: 1"=60'

Approx. Mag. Azimuth $\pm 5^\circ$

"OFFSET" is 1" x 16" Pipe

PCP - Refer to panel sketches prepared by
RADG (Griffiss AFB) for measurements
of, and "to reach" description for
panel point 6-62.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 21
 Pg 21 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-63 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Pike
 (Scale) 1:24,000

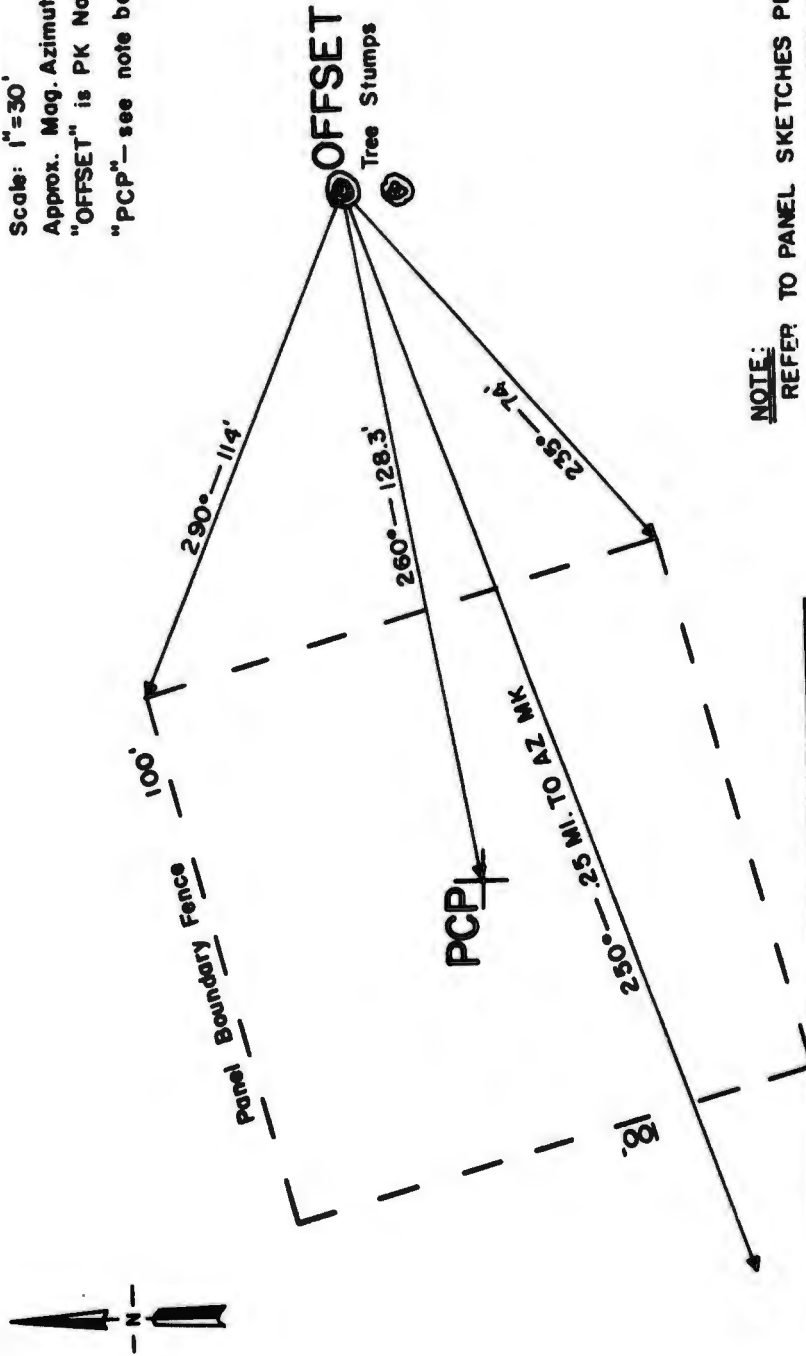
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 37' 20" 322 N	42° 37' 20" 657 N
NAD 1927: Longitude	78° 09' 52" 603 W	78° 09' 50" 949 W
Grid Coord: X	612,697.2	(Not Required)
(UTM) Y	955,694.3	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	540.67	542.89
SLD 1929 (Feet)	1773.9	1781.1

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	244° 14' 6"	Not Required
PCP Offset to PCP	254° 38' 6"	128.3

*Azimuth Mark Designation Lightning Rod

PCP 6-63

Scale: 1"=30'
 Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is PK Nail in tree stump
 "PCP"—see note below



NOTE:
 REFER TO PANEL SKETCHES PREPARED
 BY RADC (GRIFFISS AFB) FOR MEASUREMENTS
 OF, AND "TO REACH" DESCRIPTION FOR
 PANEL POINT NR. 6-63.

AZ MK is the lightning rod on southwest end of green roofed barr .25 mi west of station.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 22
 Pg 22 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-64 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Castile
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 41' 16".191	Not Required
NAD 1927: Longitude	78° 04' 01".266	Not Required
Grid Coord: X	638,818.4	(Not Required)
(UTM) Y	979,716.4	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	514.09	(Not Required)
SLD 1929 (Feet)	1686.6	(Not Required)

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	Not Required	Not Required
PCP Offset to PCP	Not Required	Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 23
 Pg 23 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-65 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Warsaw
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 41' 05" 779 N	Not Required
NAD 1927: Longitude	78° 10' 22" 036 W	Not Required
Grid Coord: X	610,385.9	(Not Required)
(UTM) Y	978,506.4	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	534.28	(Not Required)
SLD 1929 (Feet)	1752.9	(Not Required)

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*	Not Required	Not Required
PCP Offset to PCP	Not Required	Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 24
 Pg 24 of 29 pgs
 Date: _____

SUBRANGE: 6 PCP: 6-66 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Franklinville
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 37' 31" 177 N	42° 37' 31" 474 N
NAD 1927: Longitude	78° 18' 07" 342 W	78° 18' 07" 257 W

Grid Coord: X	575,705.4	(Not Required)
Y	956,640.0	(Not Required)
Zone	New York-West	(Not Required)

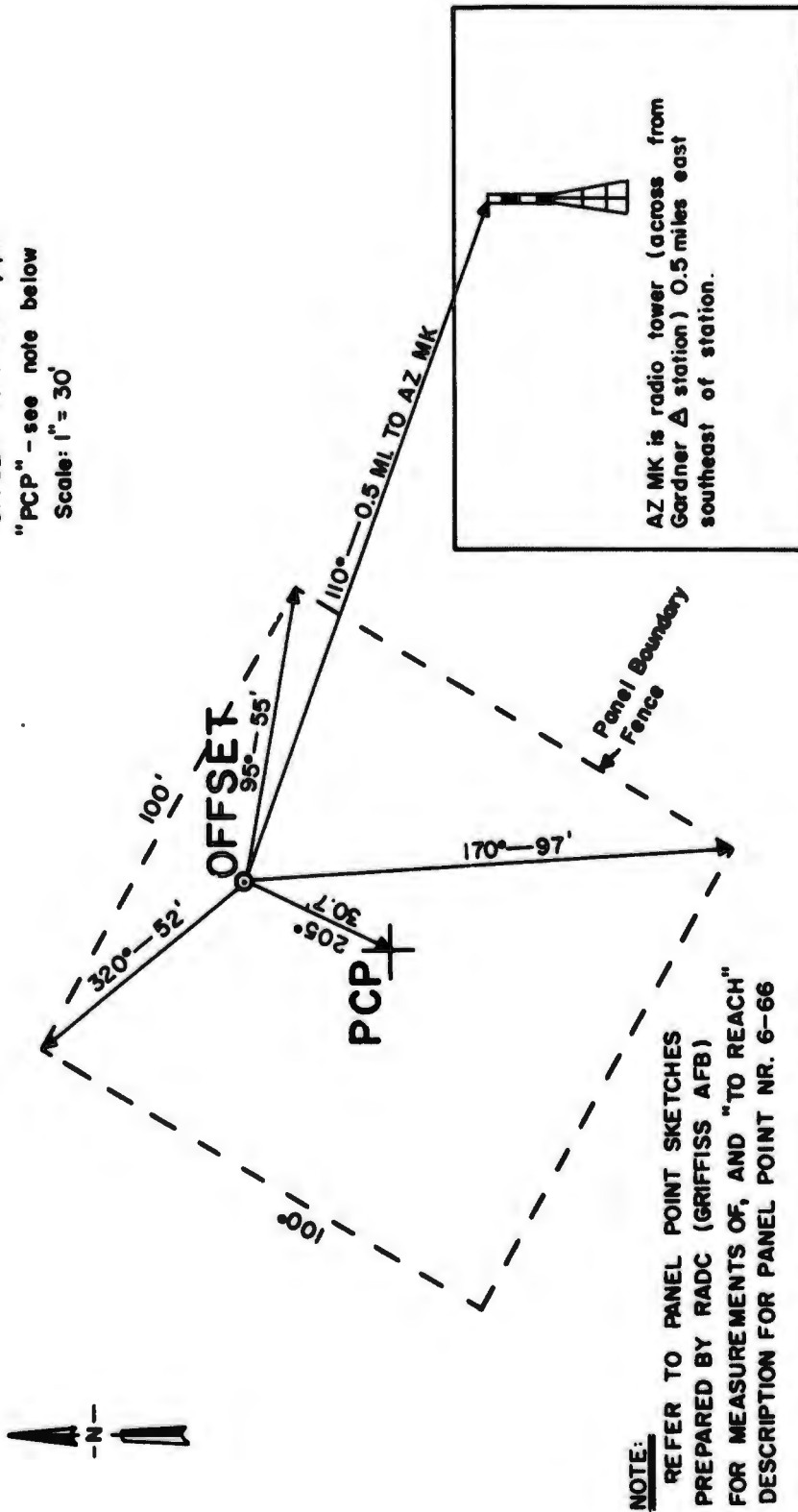
Elevation (Meters)	590.81	591.53
SLD 1929 (Feet)	1938.4	1940.7

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	100° 58' 4"	Not Required
PCP Offset to PCP	192° 04' 7"	30.7

*Azimuth Mark Designation Radio Tower

PCP 6-66

Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is 1" x 16" pipe
 "PCP" - see note below
 Scale: 1" = 30'



NOTE:
 REFER TO PANEL POINT SKETCHES
 PREPARED BY RADC (GRIFFISS AFB)
 FOR MEASUREMENTS OF, AND "TO REACH"
 DESCRIPTION FOR PANEL POINT NR. 6-66

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 25
 Pg 25 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-67 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Strykersville
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 42' 14"930 N	42° 42' 14"476 N
NAD 1927: Longitude	78° 24' 01"937 W	78° 24' 02"543 N
Grid Coord: X	549,134.1	(Not Required)
(UTM) Y	985,291.7	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	475.44	475.16
SLD 1929 (Feet)	1559.8	1558.9

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	254° 58'9	Not Required
PCP Offset to PCP	44° 33'7	64.5

*Azimuth Mark Designation Radio Tower

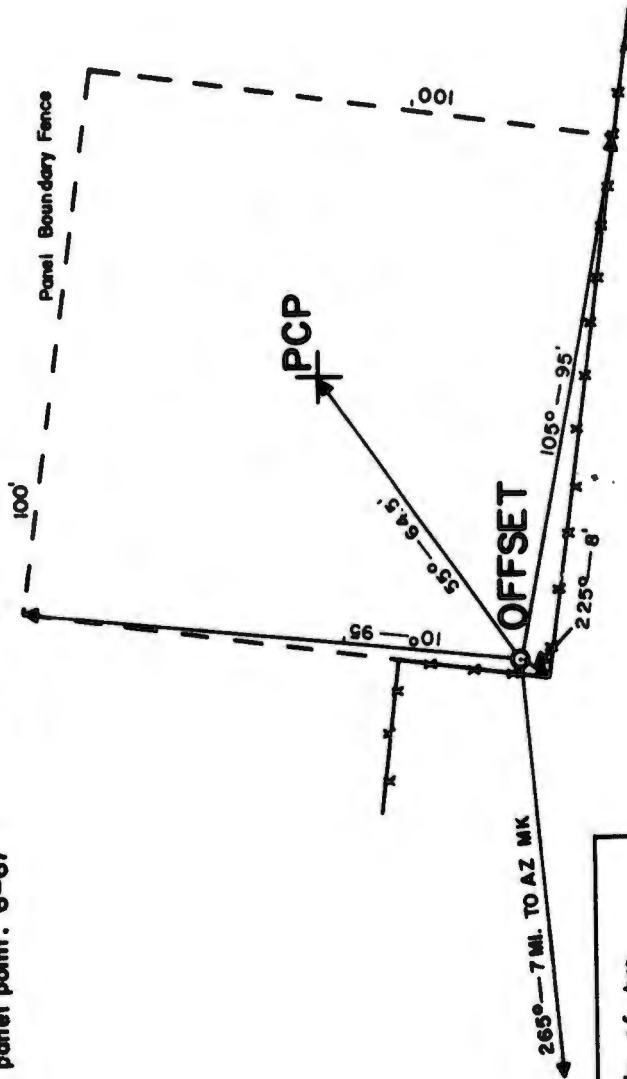
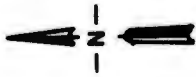
PCP 6-67

Scale: $\bar{r} = 30'$

Approx. Mag. Azimuth $\pm 5^\circ$

"OFFSET" is 1" x 16" Pipe

"PCP" — Refer to panel point sketches prepared by RADC (Griffiss AFB) for measurements of, and "To Reach" description for panel point. 6-67



AZ MK is most northerly of two towers approximately 7 miles west of station

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 26
 Pg 26 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-68 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Castile
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 44' 40" 453 N	42° 44' 39" 740 N
NAD 1927: Longitude	78° 06' 54" 231 W	78° 06' 54" 290 W
Grid Coord: X	625,785.9	(Not Required)
(UTM) Y	1,000,318.8	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	443.91	445.36
SLD 1929 (Feet)	1456.4	1461.2

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	237° 56' 8"	Not Required
PCO Offset to PCP	03° 29' 6"	72.3

*Azimuth Mark Designation Radio Tower

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 27
 Pg 27 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-69 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Arcade
 (Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 44' 27" 306 N	Not Required
NAD 1927: Longitude	78° 20' 25" 021 W	Not Required
Grid Coord: X	565,291.5	(Not Required)
(UTM) Y	998,733.1	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	550.90	(Not Required)
SLD 1927 (Feet)	1807.4	(Not Required)

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	Not Required	Not Required
PCP Offset to PCP	Not Required	Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 28
 Pg 28 of 29 pgs
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-70 PROJECT RADC 6512
 AF64-RAD 6A

QUADRANGLE: (Name) Warsaw
 (Scale) 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 44' 04" 800 N	42° 44' 04" 766 N
NAD 1927: Longitude	78° 14' 41" 502 W	78° 14' 42" 137 W
Grid Coord: X	590,934.3	(Not Required)
(UTM) Y	996,543.0	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	573.65	574.25
SLD 1929 (Feet)	1882.1	1884.0

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk.*	79° 04' 9"	Not Required
PCP Offset to PCP	85° 49' 9"	47.5

*Azimuth Mark Designation Weather Vane

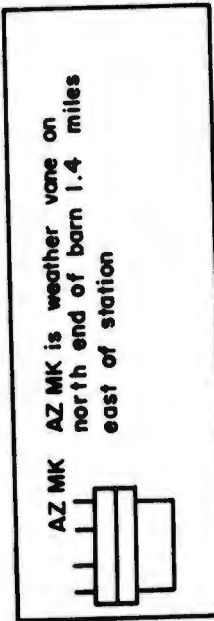
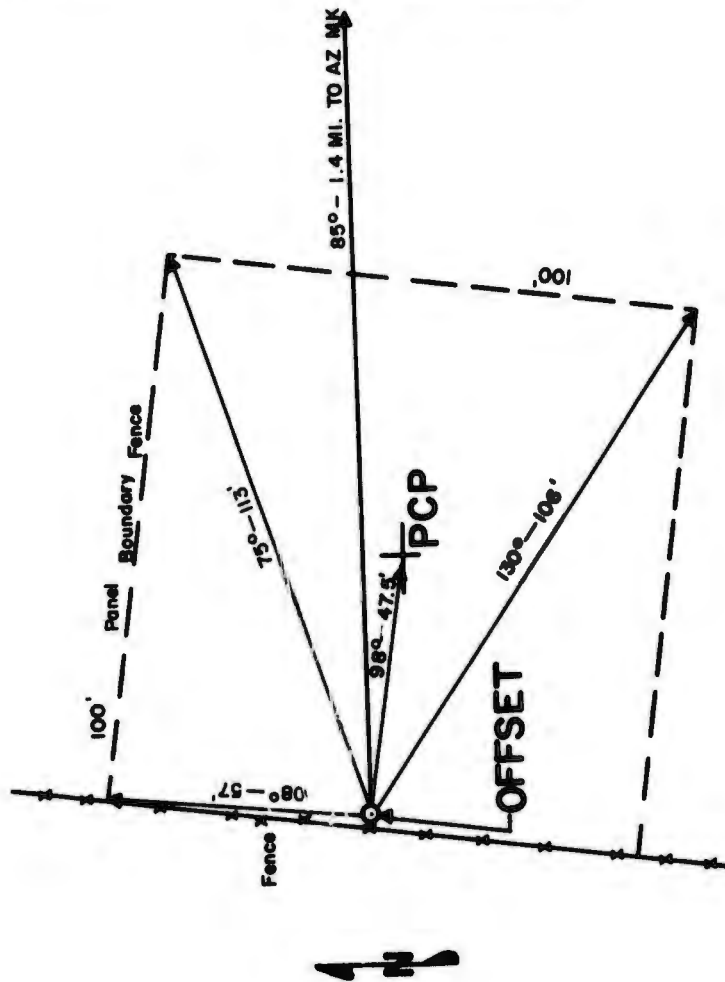
PCP 6-70

Scale 1" = 30'

Approx. Mag. Azimuth $\pm 5^\circ$

"OFFSET" is 1" x 16" pipe

"PCP" Refer to panel point sketches prepared by RADC (Griffiss AFB) for measurements of, and "To Reach" description for panel point 6-70



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1381ST GEODETIC SURVEY SQUADRON
AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
UNITED STATES AIR FORCE
Orlando AFB, Florida

PCPDS NO. 29
Pg 29 of 29 pgs
Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 6 PCP: 6-71 PROJECT RADC 6512
AF64-RAD 6A

QUADRANGLE: (Name) Arcade
(Scale) 1:62,500

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos.: Latitude	42° 40' 24"841 N	Not Required
NAD 1927: Longitude	78° 15' 13"773 W	Not Required
Grid Coord: X	588,612.81	(Not Required)
(UTM) Y	974,266.87	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	626.01	Not Required
SLD 1929 (Feet)	2053.8	Not Required

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk.*	Not Required	Not Required
PCP Offset to PCP	Not Required	Not Required

*Azimuth Mark Designation _____

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 1 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 102
 Date: 25 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-06 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Bergen Churchville
 (Scale) 1:62,500 1:24,000

		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. :	Latitude	43° 05' 19" 060 N	43° 05' 19" 060 N
NAD 1927:	Longitude	77° 53' 05" 663 W	77° 53' 05" 913 W
Grid Coord:	X	686,570.0	(Not Required)
(Mercator)	Y	1,126,136.6	(Not Required)
	Zone	New York-West	(Not Required)
Elevation (Meters)		177.26	176.87
SLD 1929 (Feet)		581.6	580.3
<u>LINE</u>		<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *		02° 11' 4	Not Required
PCP Offset to PCP		90° 07' 7	18.6

*Azimuth Mark Designation Az Mark (Apex of Churchville Water Tower)



NY 36
(Paved)

Culvert

1.5 mi. to AZ MK

8° - 69.6'

9°

Open Field

OFFSET 98° 18.6' PCP

Street Marker

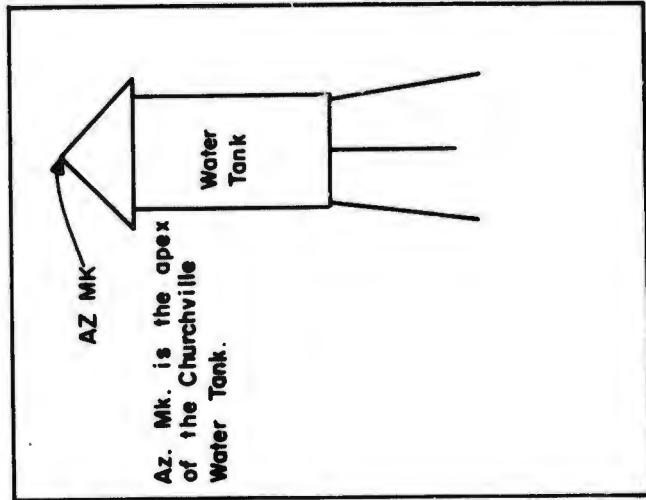
118° - 6.6'

19'

PCP 7-06

SCALE: 1" = 20'
Approx. Mag. Azimuth: ±5°
"OFFSET" is a 1" x 16" pipe
"PCP" is a nail at the int.

New Construction



Robertson Rd (Paved)

239'

New Construction

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 103
 Pg 2 of 19 pgs
 Date: 25 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-07 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Bergen Spencerport
 (Scale) 1:62,500 1:24,000

		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. :	Latitude	43° 09' 54" 947 N	43° 09' 54" 673 N
NAD 1927:	Longitude	77° 51' 20" 480 W	77° 51' 20" 812 W
Grid Coord:	X	694, 132.3	(Not Required)
(Mercator)	Y	1, 154, 133.4	(Not Required)
	Zone	New York-West	(Not Required)
Elevation (Meters)		193.08	192.89
SLD 1929 (Feet)		633.5	632.8

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	202° 27' 5	Not Required
PCP Offset to PCP	41° 29' 6	37.1

*Azimuth Mark Designation Az Mark (Lightning Rod on North End of Barn)

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-08 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Bergen Spencerport
 (Scale) 1:62,500 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	43° 11' 55" 349 N	43° 11' 55" 181 N
NAD 1927: Longitude	77° 52' 29" 661 W	77° 52' 29" 579 W
Grid Coord: X	688,902.2	(Not Required)
(Mercator) Y	1,166,278.9	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	160.49	160.37
SLD 1929 (Feet)	526.5	526.1
 <u>LINE</u>	 <u>AZIMUTH</u> (from North)	 <u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	139° 24' 8	Not Required
PCP Offset to PCP	340° 23' 1	18.0

*Azimuth Mark Designation Az Mark (Lightning Rod on East End of Barn)

PCP 7-08

SCALE: 1" = 20'
 Approx. Mag. Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail at the int.

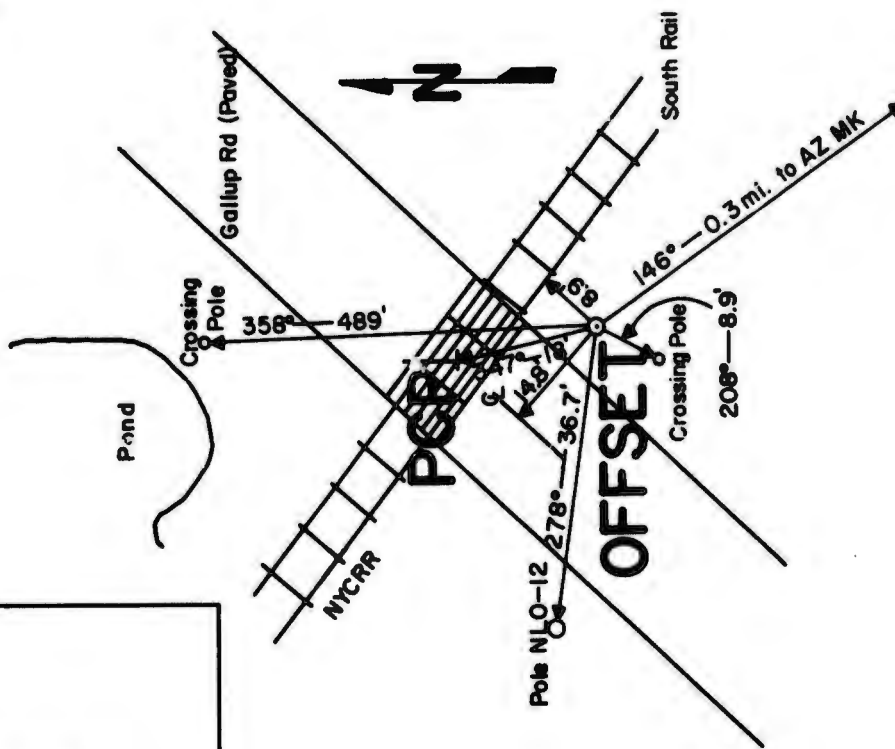
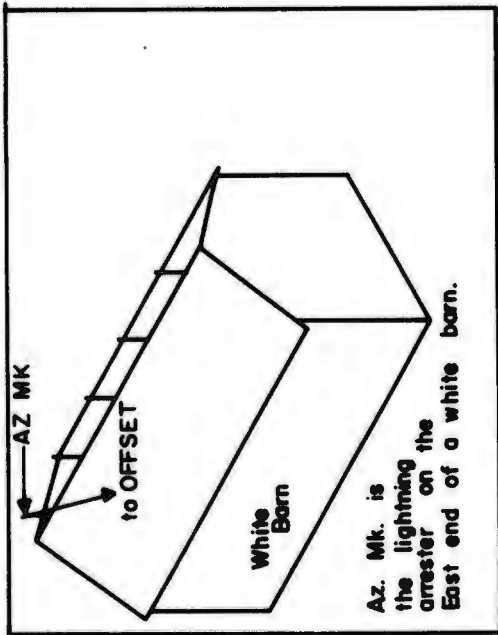


PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-09 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Bergen Brockport
 (Scale) 1:62,500 1:24,000

PCP

OFFSET

Geo. Pos. : Latitude 43° 14' 40" 254 N
 NAD 1927: Longitude 77° 55' 20" 357 W

43° 14' 40" 385 N
77° 55' 20" 564 W

Grid Coord: X 676,126.9
 (Mercator) Y 1,182,870.5
 Zone New York-West

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 116.18
 SLD 1929 (Feet) 381.2

115.98
380.5

LINE

AZIMUTH
 (from North)

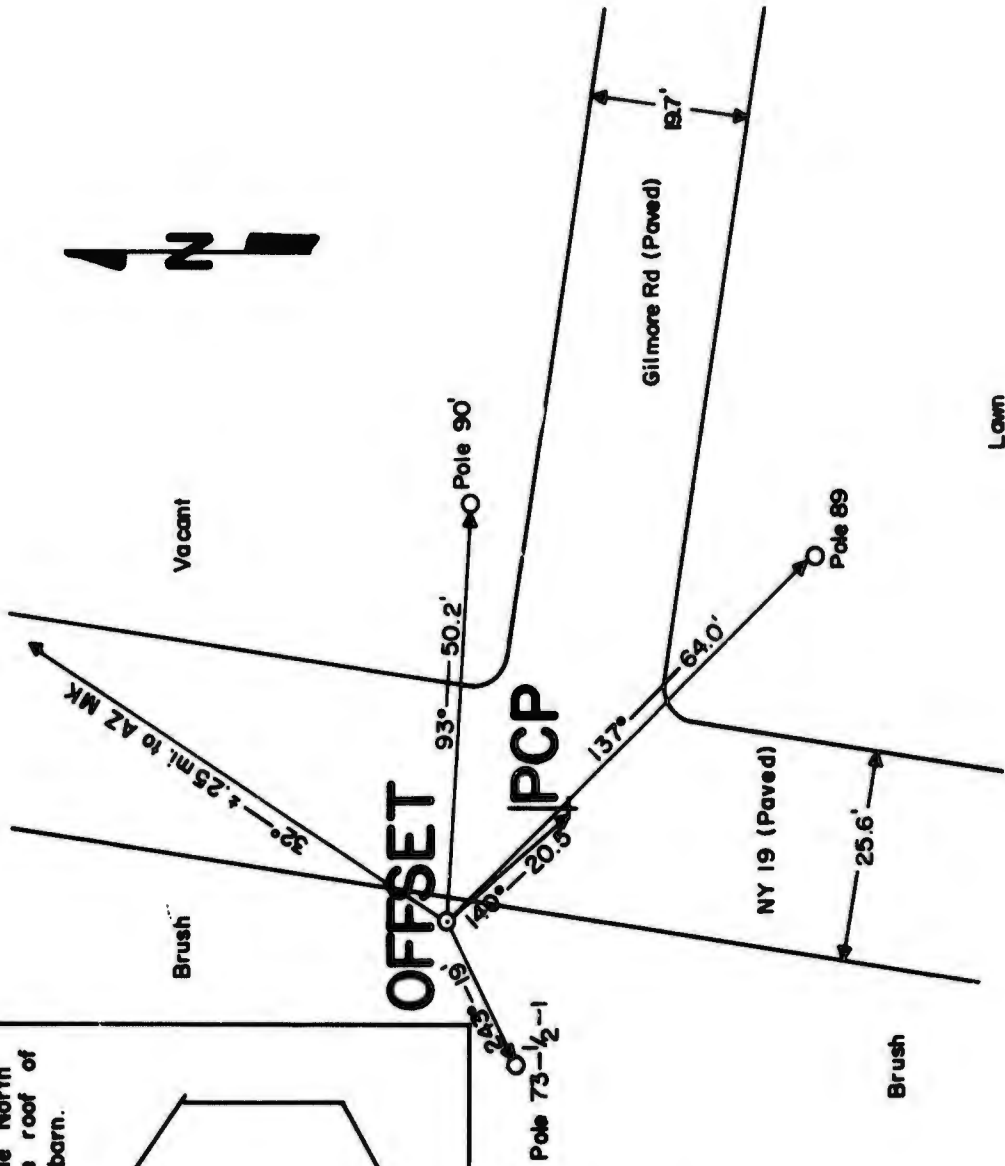
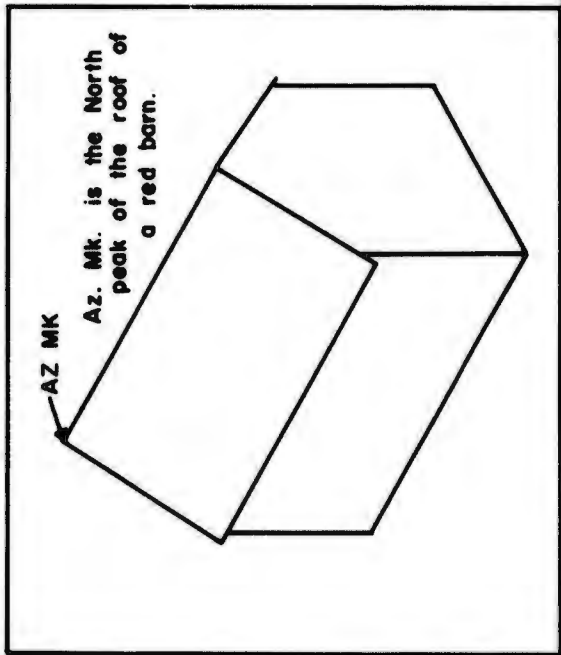
DISTANCE
 (Feet)

PCP Offset to Az. Mk.*
 PCP Offset to PCP

22° 54' 9
130° 51' 3

Not Required
20.3

*Azimuth Mark Designation Az Mark (North Peak of the Roof of a Red Barn)



PCP 7-09

SCALE: 1"=20'
 Approx. Mag. Azimuth ±5°
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail at the int.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 5 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 106
 Date: 25 Aug 64

PHOTO CONTROL POINT DATA SHEET

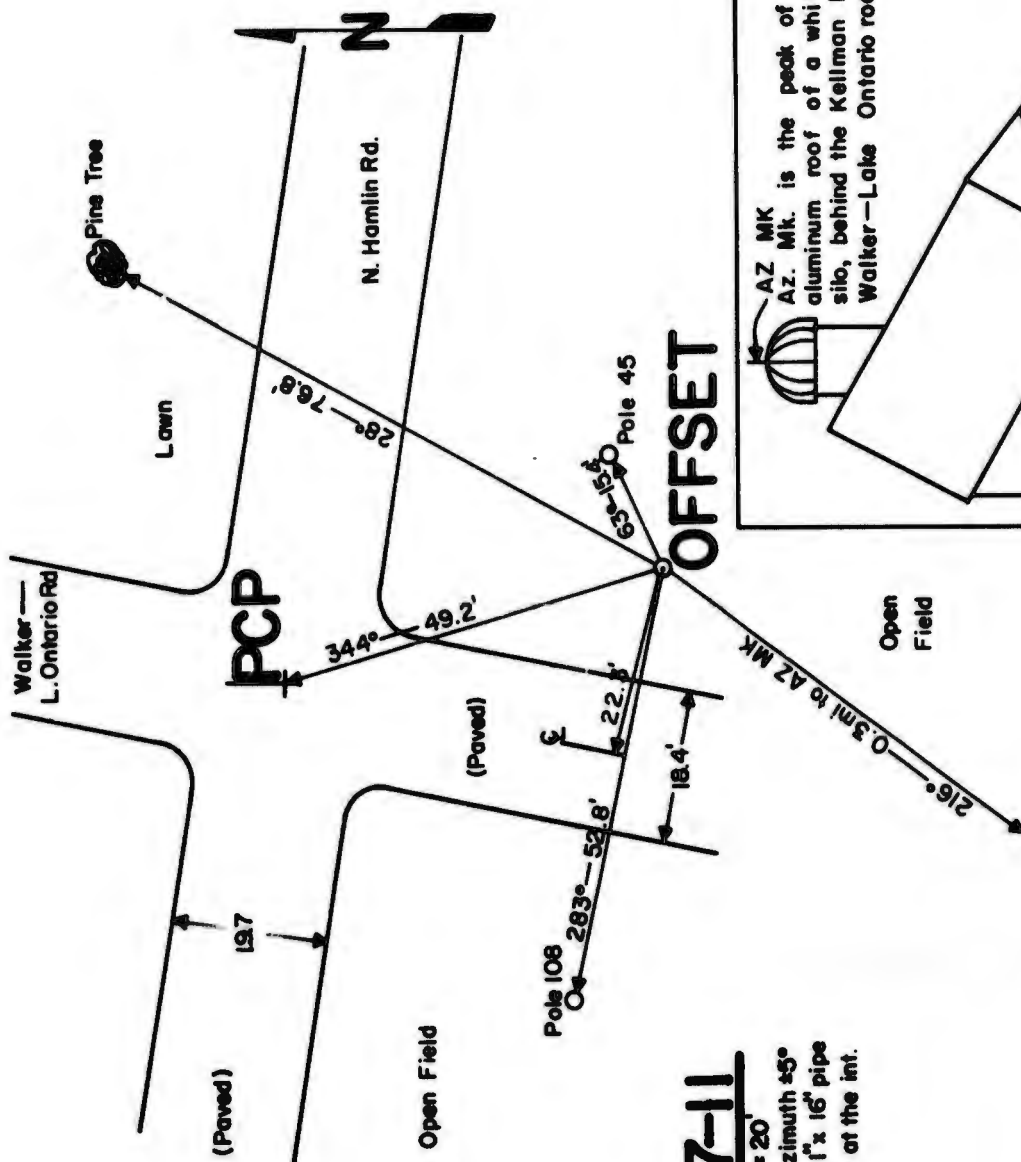
SUBRANGE: 7 PCP: 7-11 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Hilton
 (Scale) 1:24,000

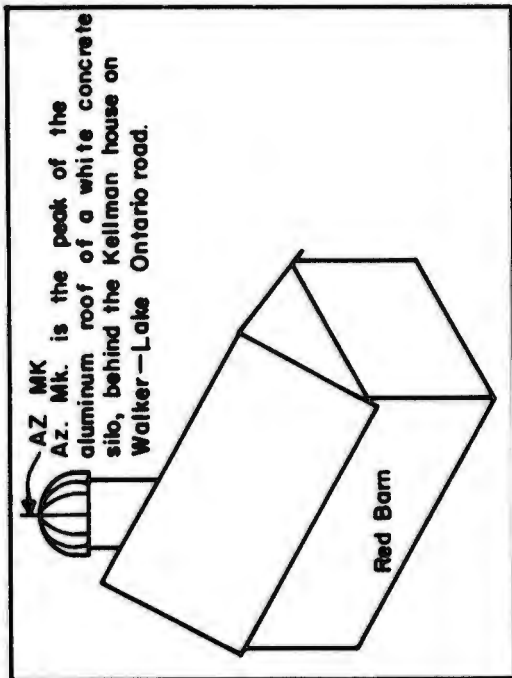
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	43° 20' 12" 307 N	43° 20' 11" 862 N
NAD 1927: Longitude	77° 51' 21" 501 W	77° 51' 21" 232 W
Grid Coord: X	693,512.9	(Not Required)
(Mercator) Y	1,216,634.9	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	78.53	78.41
SLD 1929 (Feet)	257.6	257.3

<u>LINE</u>	<u>AZIMUTH</u> <u>(from North)</u>	<u>DISTANCE</u> <u>(Feet)</u>
PCP Offset to Az. Mk. *	207° 59' 8	Not Required
PCP Offset to PCP	336° 08' 5	49.2

*Azimuth Mark Designation 17 Mark (Peak of the Aluminum Roof of a White Concrete Silo, Behind the Kellman House on Walker - Lake Ontario Road)



PCP 7-11
 SCALE: 1" = 20'
 Approx Mag Azimuth ±5°
 "OFFSET" is a 1" x 16" pipe
 "PCP" is a nail of the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) PCPDS NO. 107
 UNITED STATES AIR FORCE Pg 6 of 19 pgs
 Orlando AFB, Florida Date: 25 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-12 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Hamlin
 (Scale) 1:24000

PCP

OFFSET

Geo. Pos. : Latitude 43° 17' 41" 870 N
 NAD 1927: Longitude 77° 53' 28" 115 W

43° 17' 41" 992 N
 77° 53' 27" 293 W

Grid Coord: X 684, 282.1
 (Mercator) Y 1, 201, 324.8
 Zone New York - West

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 93.14
 SLD 1929 (Feet) 305.6

93.44
 306.6

LINE

AZIMUTH
 (from North)

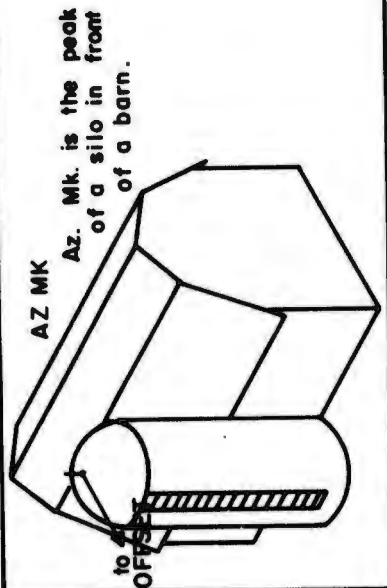
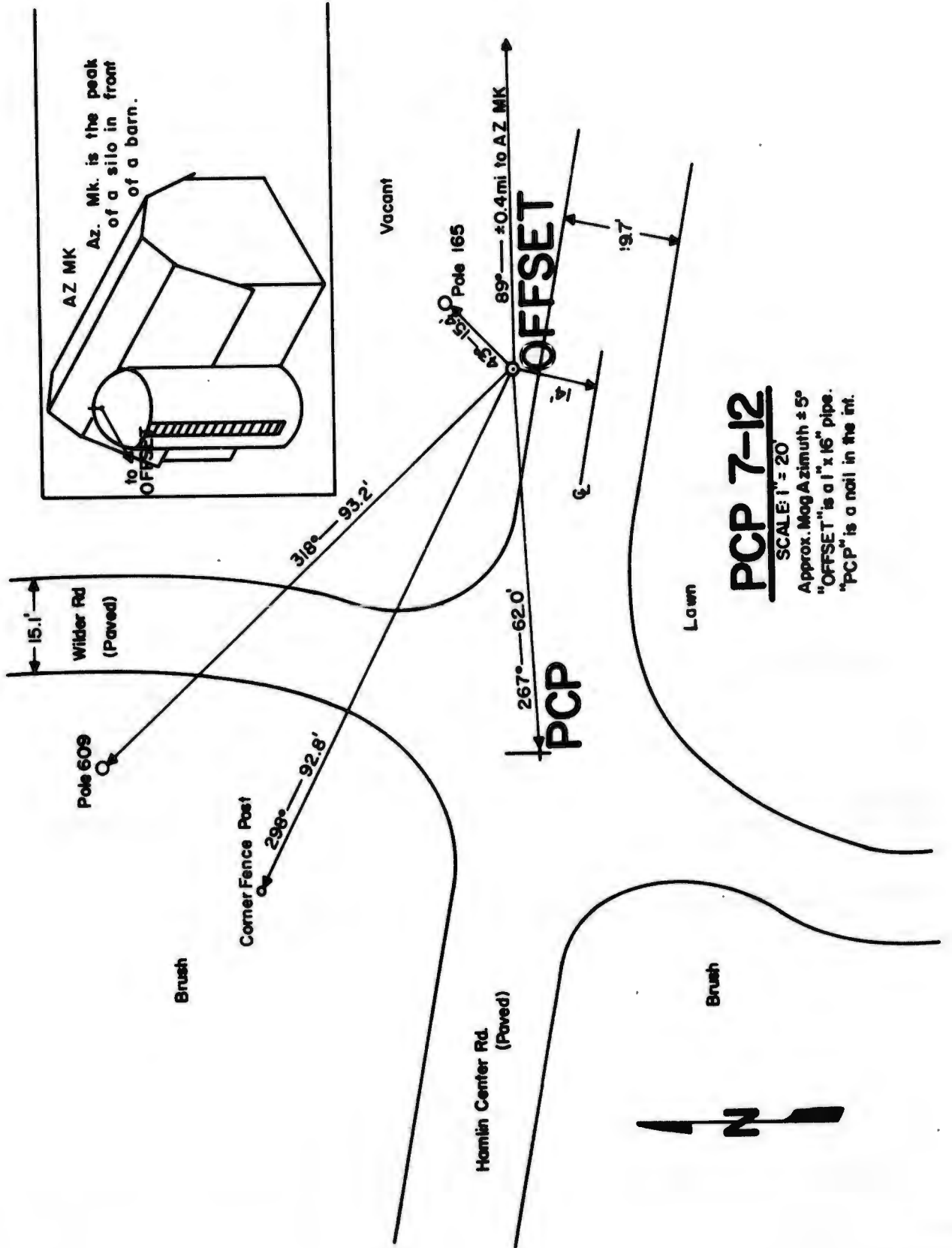
DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

80° 21' 1
 258° 30' 2

Not Required
 62.0

*Azimuth Mark Designation Az Mark (Peak of Silo)



PCP 7-12
 SCALE 1" = 20'
 Approx. Mag Azimuth ± 5°
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail in the int.

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 7 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 108
 Date: 25 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-13 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Oak Orchard Kendall
 (Scale) 1:62,500 1:24,000

PCP

OFFSET

Geo. Pos. : Latitude 43° 19' 39" 405 N
 NAD 1927: Longitude 78° 00' 58" 245 W

43° 19' 39" 154 N
 78° 00' 57" 940 W

Grid Coord: X 650,912.8
 (Mercator) Y 1,212,973.4
 Zone New York - West

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 98.22
 SLD 1929 (Feet) 322.2

98.02
 321.6

LINE

AZIMUTH
 (from North)

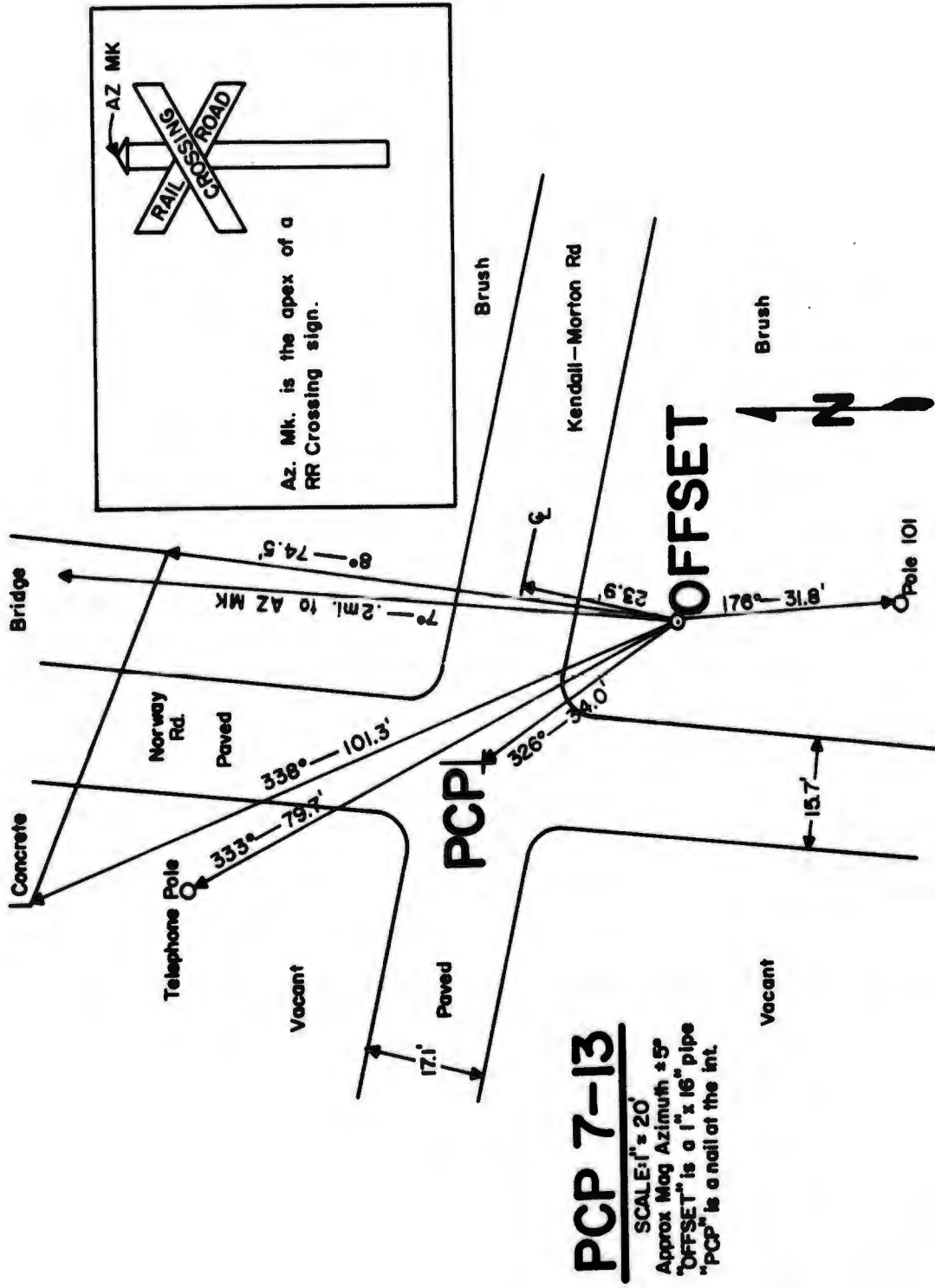
DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

359° 47' 5
 318° 30' 5

Not Required
 34.0

* Azimuth Mark Designation Az Mark (Apex of a RR Crossing Sign)



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 109
 Pg 8 of 19 pg.
 Date: 25 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-14 PROJECT RADC 6512
 AF64-RAD 5

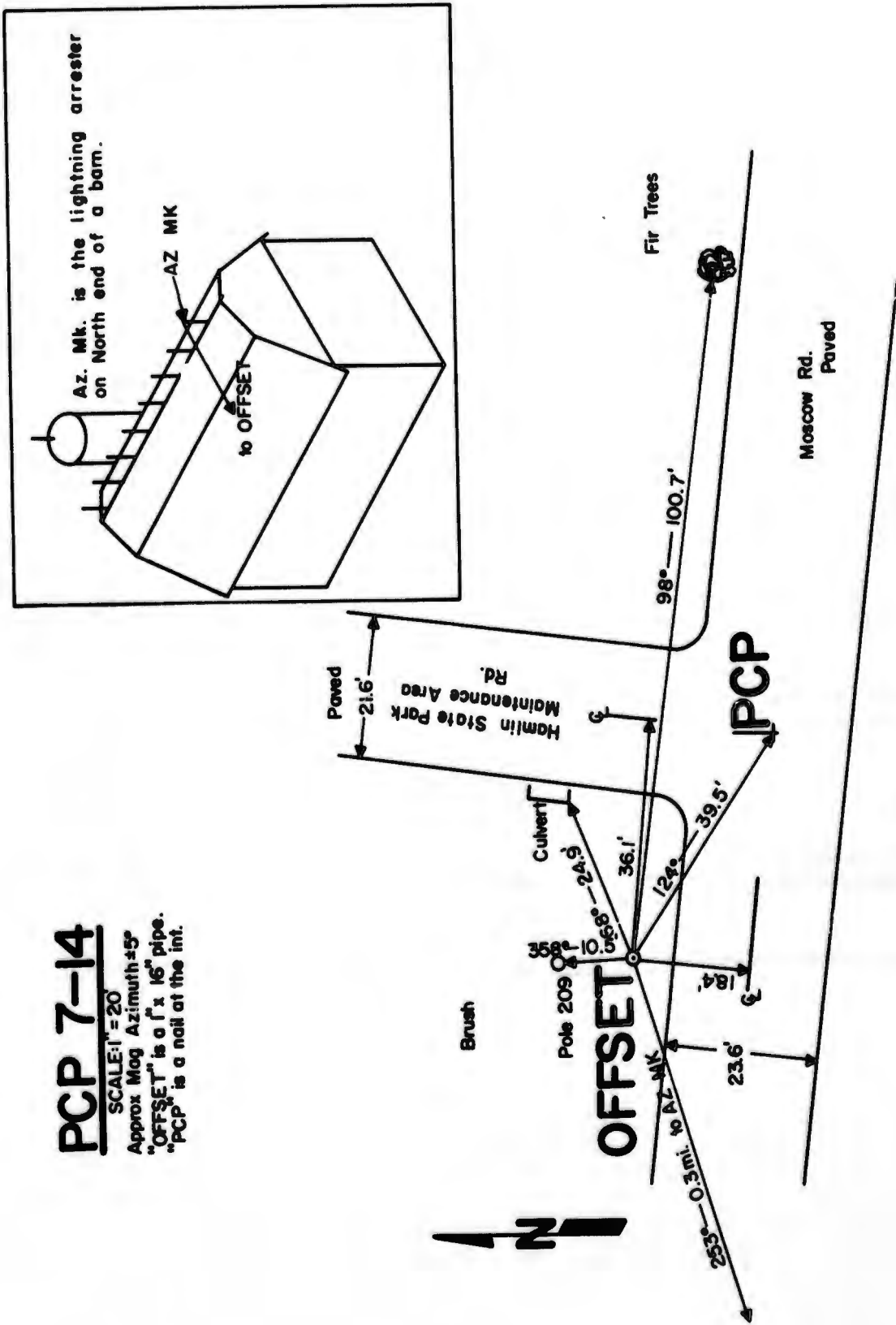
QUADRANGLE: (Name) Hamlin
 (Scale) 1:24,000

<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude $43^{\circ} 21' 01'' 399$ N	$43^{\circ} 21' 01'' 573$ N
NAD 1927: Longitude $77^{\circ} 57' 01'' 729$ W	$77^{\circ} 57' 02'' 208$ W
Grid Coord: X $668,331.6$	(Not Required)
(Mercator) Y $1,221,400.2$	(Not Required)
Zone $New York-West$	(Not Required)
Elevation (Meters) 82.66	82.62
SLD 1929 (Feet) 271.2	271.1
<u>LINE</u>	<u>AZIMUTH</u> (from North)
<u>DISTANCE</u> (Feet)	
PCP Offset to Az. Mk. *	$244^{\circ} 55' 3$
PCP Offset to PCP	$116^{\circ} 24' 5$
	Not Required
	39.5

*Azimuth Mark Designation Az Mark (Lightning Rod on North End of Barn)

PCP 7-14

SCALE: 1" = 20'
 Approx Mag Azimuth +5°
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail at the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 9 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 110
 Date: 25 Aug 64

PHOTO CONTROL POINT DATA SHEET

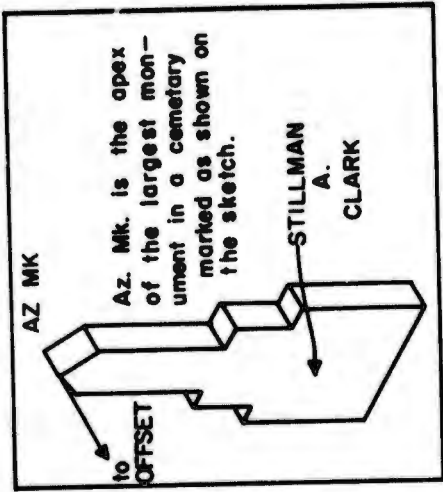
SUBRANGE: 7 PCP: 7-15 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Oak Orchard Kendall
 (Scale) 1:62500 1:24000

		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. :	Latitude	43° 15' 28" 540 N	43° 15' 28" 112 N
NAD 1927:	Longitude	78° 00' 29" 885 W	78° 00' 30" 451 W
Grid Coord:	X	653, 183.8	(Not Required)
(Mercator)	Y	1, 187, 589.7	(Not Required)
	Zone	New York - West	(Not Required)
Elevation (Meters)		131.53	131.06
SLD 1929 (Feet)		431.5	430.0

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	97° 04' 8	Not Required
PCP Offset to PCP	43° 58' 6	60.3

* Azimuth Mark Designation Az Mark (Apex of tallest monument in cemetery)



PCP 7-15

SCALE: 1" = 20'
 Approx Mag Azimuth $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail at the int.

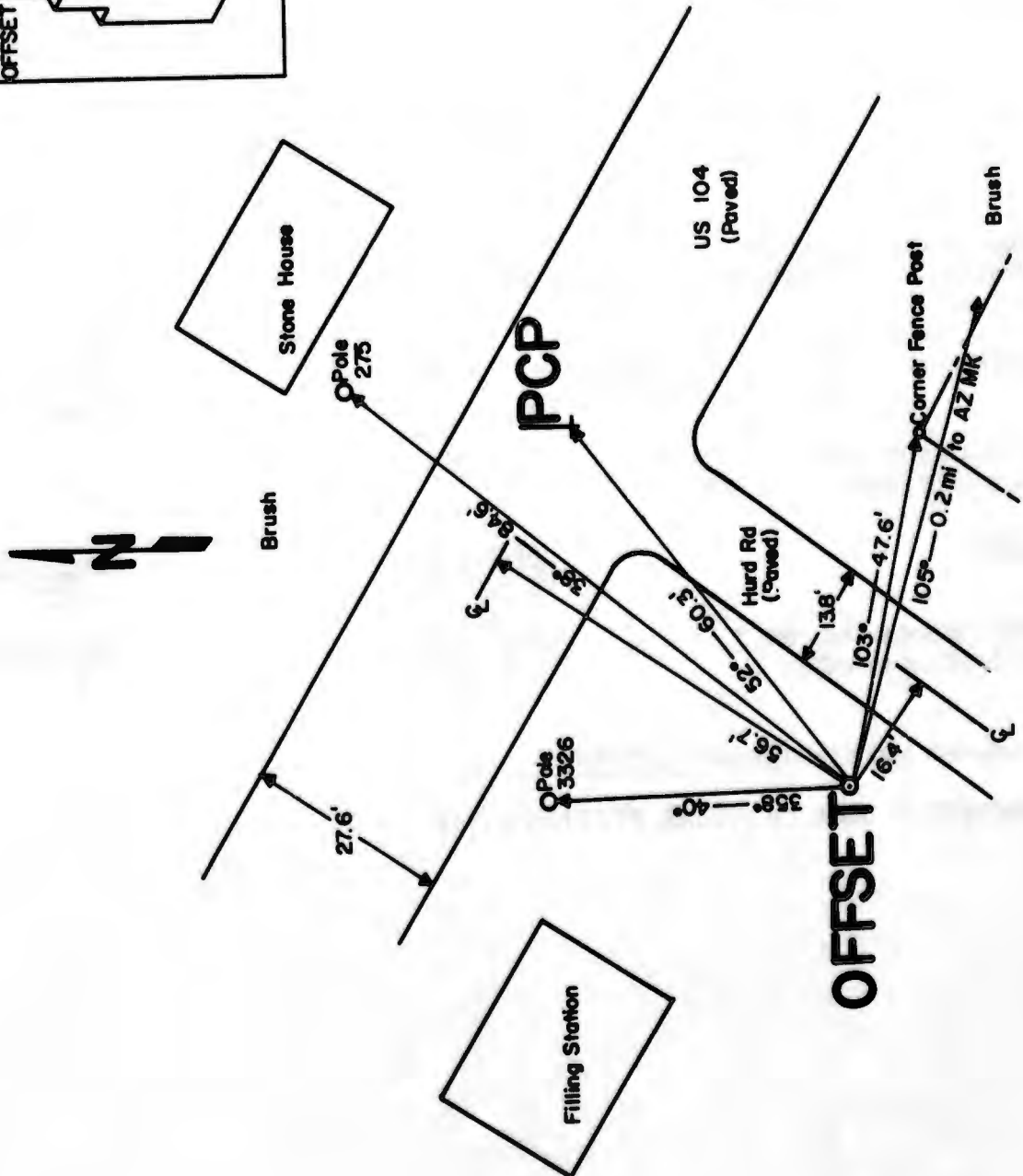


PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-16 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Bergen Brockport
 (Scale) 1:62,500 1:24,000

		<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. :	Latitude	43° 10' 34."544 N	43° 10' 34."211 N
NAD 1927:	Longitude	77° 59' 14."793 W	77° 59' 15."345 W
Grid Coord:	X	658,952.4	(Not Required)
(Mercator	Y	1,157,864.4	(Not Required)
	Zone	New York - West	(Not Required)
Elevation (Meters)		203.35	203.36
SLD 1929 (Feet)		667.2	667.2

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	176° 33:2	Not Required
PCP Offset to PCP	50° 31:8	53.0

*Azimuth Mark Designation NYGS 765

*OFFSET IS USGS TRAVERSE STATION TT74K

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 11 of 19 pgs
 UNITED STATES AIR FORCE Date: 25 Aug 64
 Orlando AFB, Florida

PCPDS NO. 112

Date: 25 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-18 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Bergen Brockport
 (Scale) 1:62,500 1:24,000

PCP

OFFSET

Geo. Pos. : Latitude 43° 08' 11" 278 N
 NAD 1927: Longitude 77° 56' 22" 885 W

43° 08' 11" 486 N
 77° 56' 23" 333 W

Grid Coord: X 671,801.7
 (Mercator) Y 1,143,454.5
 Zone New York-West

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 189.52
 SLD 1929 (Feet) 621.8

189.37
 621.3

LINE

AZIMUTH
 (from North)

DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

10° 17' 8
 122° 26' 2

Not Required
 39.4

*Azimuth Mark Designation Az Mark (Lightning Rod at East End of Barn)

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 12 of 19 pgs
 UNITED STATES AIR FORCE Date: 25 Aug 64
 Orlando AFB, Florida

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-19 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Bergen Churchville
 (Scale) 1:62500 1:24000

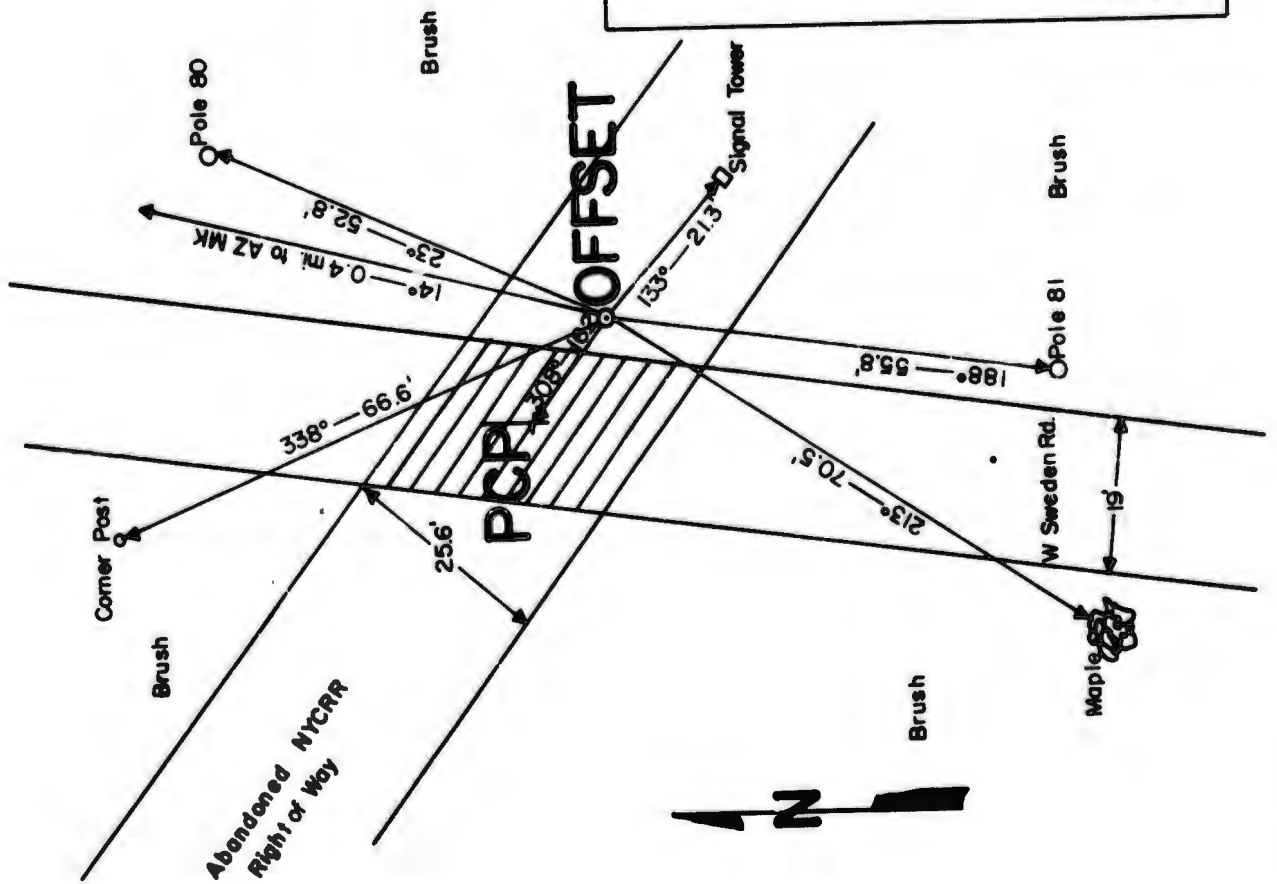
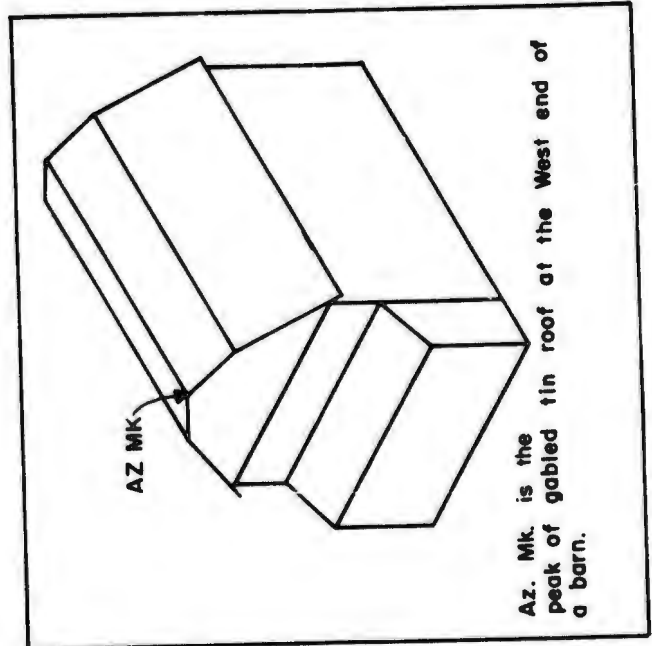
	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	43° 05' 28" 401 N	43° 05' 28" 345 N
NAD 1927: Longitude	77° 58' 36" 686 W	77° 58' 36" 487 W
Grid Coord: X	662,000.3	(Not Required)
(Mercator) Y	1,126,891.2	(Not Required)
Zone	New York - West	(Not Required)
Elevation (Meters)	181.94	181.98
SLD 1929 (Feet)	596.9	597.0

<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	6° 24' 2	Not Required
PCP Offset to PCP	291° 07' 1	15.8

*Azimuth Mark Designation Az Mark (Peak of gabled tin roof at the west end of a barn)

PCP 7-19

SCALE: 1" = 20'
 Approx Mag Azimuth $\pm 5^\circ$
 "OFFSET" is an iron bolt
 in the NW corner of an
 old signal tower base.
 "PCP" is a nail at the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 13 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 114
 Date: 25 Aug 64

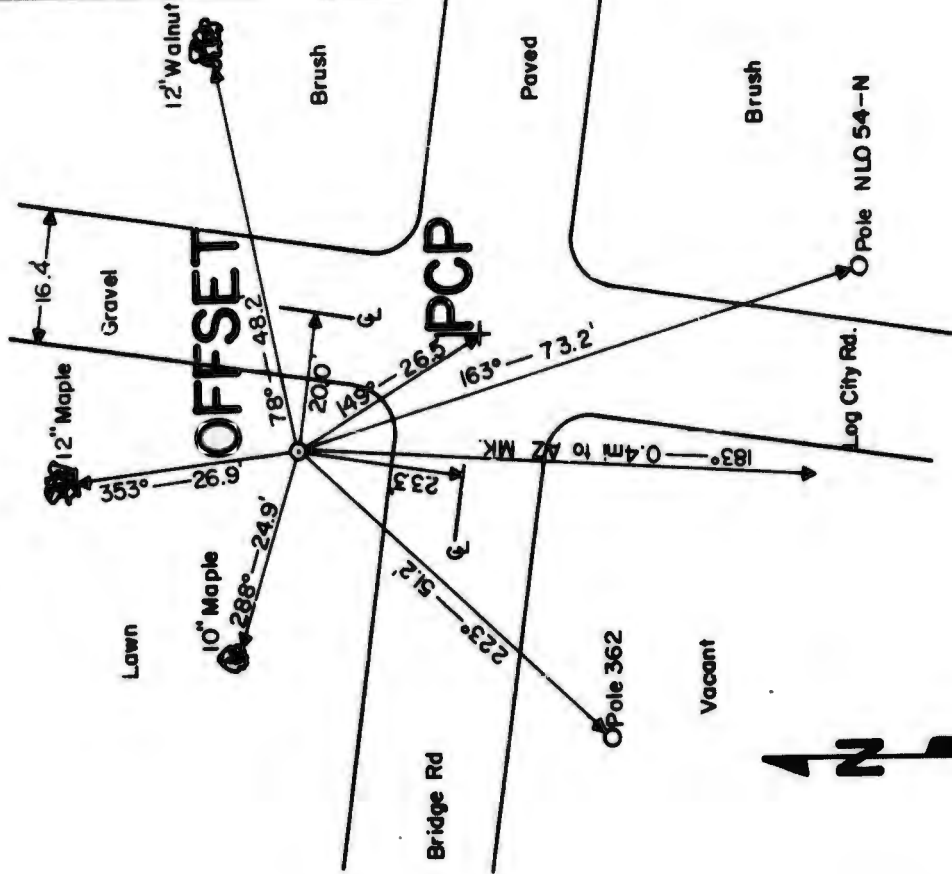
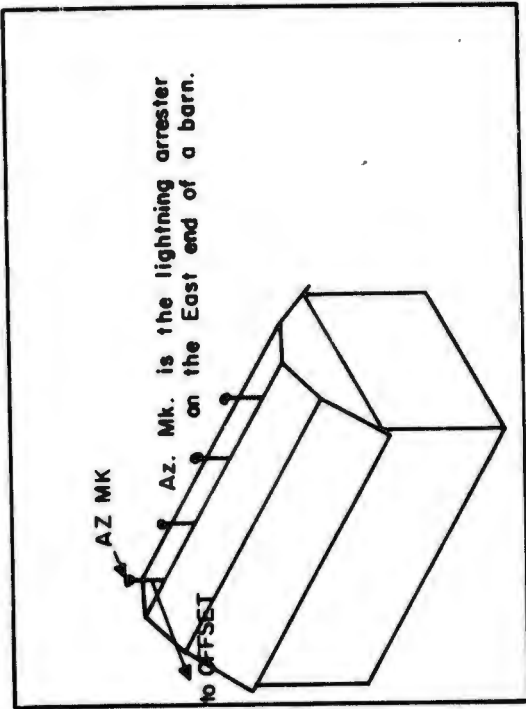
PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-21 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Albion Batavia North
 (Scale) 1:62500 1:24,000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	43° 05' 02" 050 N	43° 05' 02" 254 N
NAD 1927: Longitude	78° 08' 23" 091 W	78° 08' 23" 312 W
Grid Coord: X	618,503.6	(Not Required)
(Mercator) Y	1,123,951.0	(Not Required)
Zone	New York-West	(Not Required)
Elevation (Meters)	241.80	241.93
SLD 1929 (Feet)	793.3	793.7
<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	175° 27' 2	Not Required
PCP Offset to PCP	141° 38' 9	26.5

*Azimuth Mark Designation Az Mark (Lightning Rod on East End of Barn)



PCP 7-21

SCALE: 1" = 20'
 Approx Mag Azimuth ±5°
 "OFFSET" is a 1" x 16" pipe.
 "PCP" is a nail at the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 14 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 115
 Date: 25 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-22 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Albion Holley
 (Scale) 1:62500 1:24000

PCP

OFFSET

Geo. Pos. : Latitude 43° 14' 05" 038 N
 NAD 1927: Longitude 78° 06' 21" 985 W

43° 14' 04" 980 N
 78° 06' 19" 736 W

Grid Coord: X 627,177.4
 (Mercator) Y 1,178,972.0
 Zone New York - West

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 194.05
 SLD 1929 (Feet) 636.6

194.46
 638.0

LINE

AZIMUTH
 (from North)

DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

265° 30' 5
 271° 59' 5

Not Required
 166.6

*Azimuth Mark Designation Az Mark - Peak on east end of barn

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 15 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 116
 Date: 25 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-23 PROJECT RADC 6512
 AF64-RAD 5

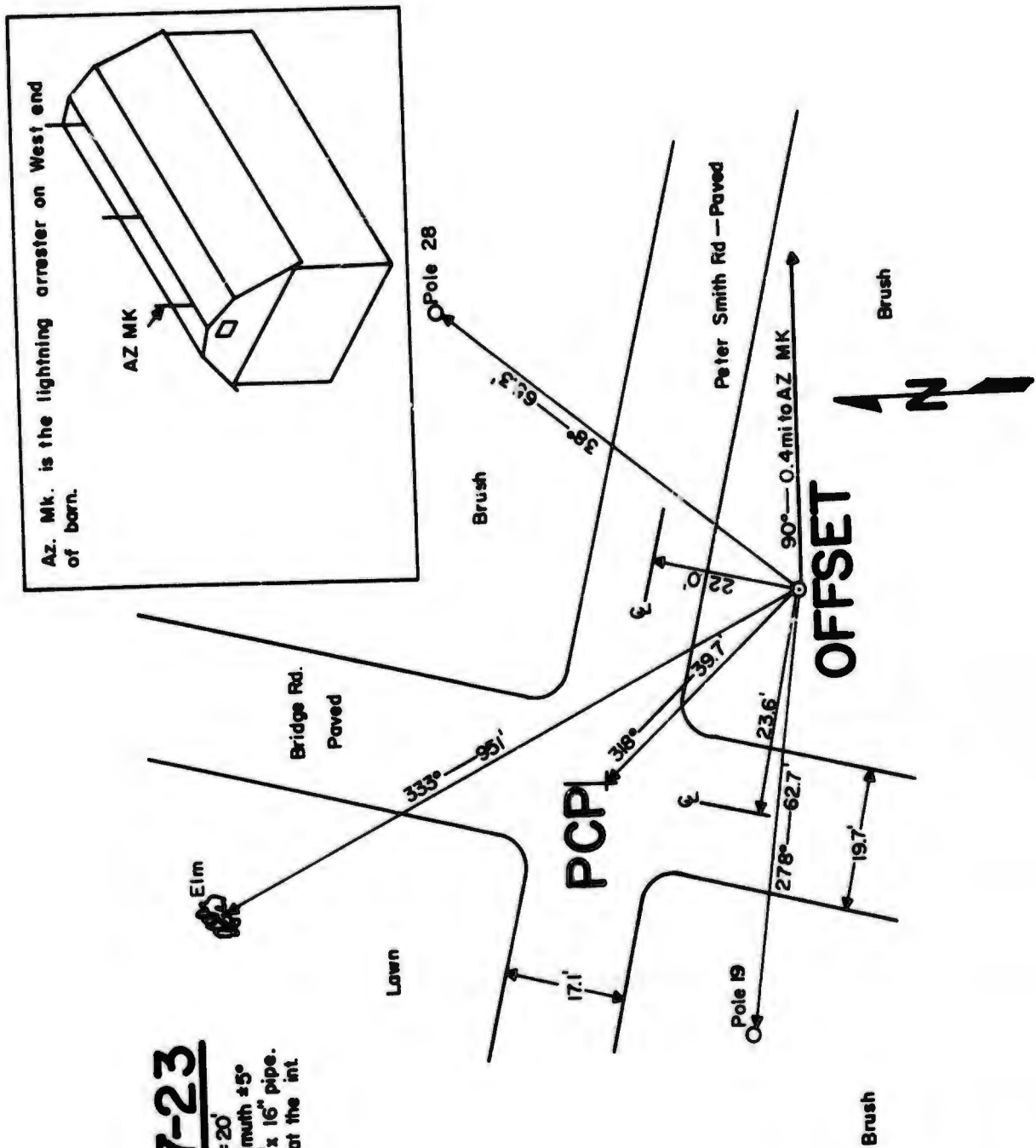
QUADRANGLE: (Name) Oak Orchard Kendall
 (Scale) 1:62500 1:24000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	43° 20' 55" 948 N	43° 20' 55" 694 N
NAD 1927: Longitude	78° 05' 45" 178 W	78° 05' 44" 768 W
Grid Coord: X	629, 659.3	(Not Required)
(Mercator) Y	1, 220, 588.8	(Not Required)
Zone	New York - West	(Not Required)
Elevation (Meters)	98.12	97.89
SLD 1929 (Feet)	321.9	321.2
<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	82° 22' 1	Not Required
PCP Offset to PCP	310° 16' 3	39.7

*Azimuth Mark Designation Az Mark (Lightning rod on west end of barn)

PCP 7-23

SCALE: 1" = 20'
 Approx. Mag Azimuth, $\pm 5^\circ$
 "OFFSET" is a 1" x 16" pipe.
 PCP is a nail at the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 16 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 117
 Date: 25 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-24 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Oak Orchard Kent
 (Scale) 1:62500 1:24000

PCP

OFFSET

Geo. Pos. : Latitude 43° 17' 24." 048 N 43° 17' 23." 520 N
 NAD 1927: Longitude 78° 09' 54." 800 W 78° 09' 54." 610 W

Grid Coord: X 611,322.8 (Not Required)
 (Mercator) Y 1,199,035.6 (Not Required)
 Zone New York - West (Not Required)

Elevation (Meters) 131.55 131.74
 SLD 1929 (Feet) 431.6 432.2

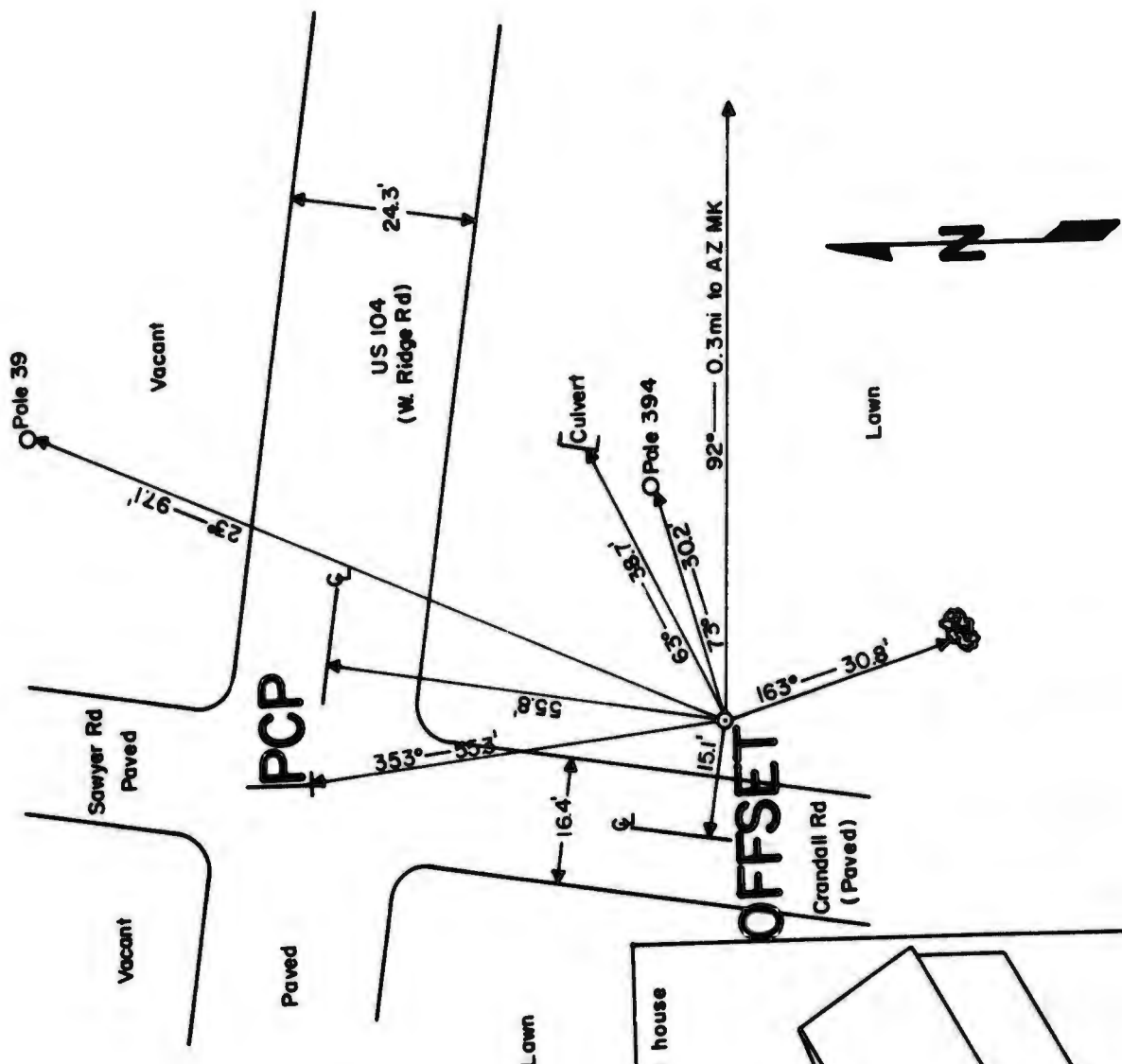
LINE

AZIMUTH
 (from North)

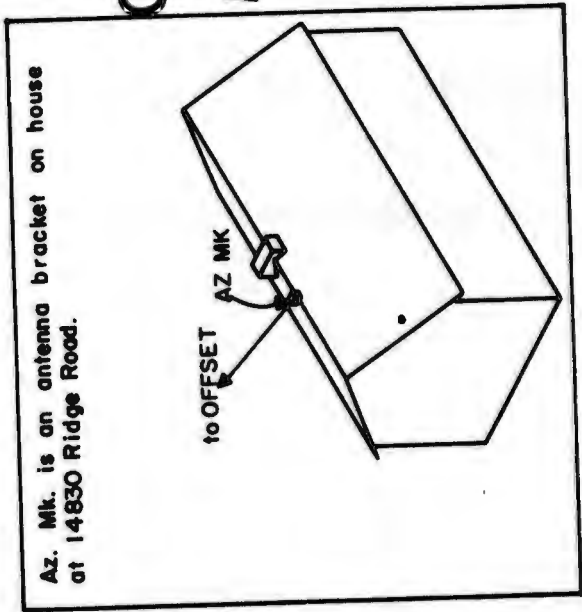
DISTANCE
 (Feet)

PCP Offset to Az. Mk. * 84° 25' 8" Not Required
 PCP Offset to PCP 345° 18' 4" 55.3

*Azimuth Mark Designation Az Mark (Antenna bracket on house)



PCP 7-24
 SCALE: 1" = 20'
 Approx Mag Azimuth $\pm 5'$
 "OFFSET" is a 1" x 16" pipe.
 PCP is a nail at the int.



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 118
 Pg 17 of 19 pgs
 Date: 25 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-25 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Albion Albion
 (Scale) 1:62500 1:24000

PCP

OFFSET

Geo. Pos. : Latitude 43° 11' 13" 108 N
 NAD 1927: Longitude 78° 09' 02" 835 W

43° 11' 11" 619 N
 78° 09' 03" 027 W

Grid Coord: X 615,360.3
 (Mercator) Y 1,161,501.0
 Zone

(Not Required)
 (Not Required)
 (Not Required)

Elevation (Meters) 207.48
 SLD 1929 (Feet) 680.7

208.04
 682.5

LINE

AZIMUTH
 (from North)

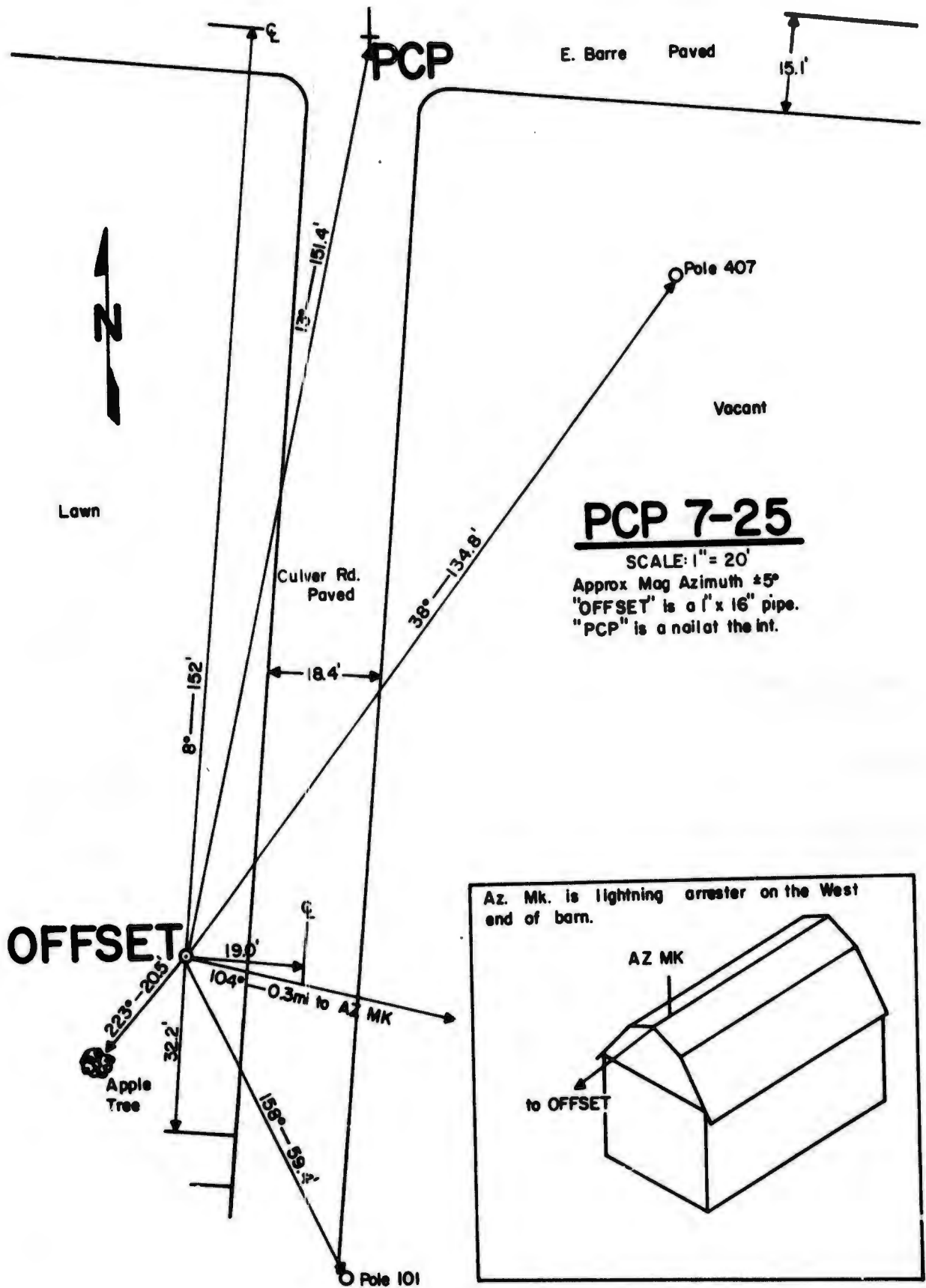
DISTANCE
 (Feet)

PCP Offset to Az. Mk. *
 PCP Offset to PCP

98° 10' 9
 5° 23' 2

Not Required
 151.4

*Azimuth Mark Designation Az Mark (Lightning rod on west end of barn)



1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS) Pg 18 of 19 pgs
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 119
 Date: _____

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 PCP: 7-26 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Albion Holley
 (Scale) 1:62500 1:24000

	<u>PCP</u>	<u>OFFSET</u>
Geo. Pos. : Latitude	43° 08' 26" 490 N	43° 08' 26" 311 N
NAD 1927: Longitude	78° 02' 13" 705 W	78° 02' 14" 520 W
Grid Coord: X	645, 780.2	(Not Required)
(Mercator) Y	1, 144, 810.0	(Not Required)
Zone	New York - West	(Not Required)
Elevation (Meters)	204.93	204.40
SLD 1929 (Feet)	672.3	670.6
<u>LINE</u>	<u>AZIMUTH</u> (from North)	<u>DISTANCE</u> (Feet)
PCP Offset to Az. Mk. *	74° 21' 3	Not Required
PCP Offset to PCP	73° 16' 3	63.1

*Azimuth Mark Designation Az Mark (Lightning rod at south end of barn)

1381ST GEODETIC SURVEY SQUADRON
 AIR PHOTOGRAPHIC AND CHARTING SERVICE (MATS)
 UNITED STATES AIR FORCE
 Orlando AFB, Florida

PCPDS NO. 120
 Pg 19 of 19 pgs
 Date: 25 Aug 64

PHOTO CONTROL POINT DATA SHEET

SUBRANGE: 7 (Brockport Offset) PCP: 7-53 PROJECT RADC 6512
 AF64-RAD 5

QUADRANGLE: (Name) Bergen Brockport
 (Scale) 1:62500 1:24000

PCP (Brockport Offset)

OFFSET

Geo. Pos. : Latitude 43° 11' 27" 738 N
 NAD 1927: Longitude 77° 56' 04" 655 W

Grid Coord: X 672,999.3 (Not Required)
 (Mercator) Y 1,163,354.6 (Not Required)
 Zone New York - West (Not Required)

Elevation (Meters) 217.38
 SLD 1929 (Feet) 713.2

LINE

AZIMUTH
 (from North)

DISTANCE
 (Feet)

PCP Offset to Az. Mk. * Not Required
 PCP Offset to PCP

*Azimuth Mark Designation _____

APPENDIX II

Classification and Standards of Accuracy

Table		Page
I	Triangulation	282
II	Traverse	284
III	Leveling	285

APPENDIX II

CLASSIFICATION AND STANDARDS OF ACCURACY
TABLE I
TRIANGULATION

	FIRST-ORDER			SECOND-ORDER		THIRD ORDER
	Class I (Special)	Class II (Optimum)	Class III (Standard)	Class I	Class II	
<u>Principal uses</u>	Urban surveys, scientific studies	Basic net-work	All other.	Area networks and supplemental arc in national net	Coastal areas, inland waterways and engineering surveys	Topographic mapping
<u>Spacing of arcs or principal stations*</u>	Stations: 1-5 miles or greater as required	Arcs: 60 miles. Stations: 10-15 miles	Stations: 10-15 miles	Stations: 4-10 miles	As required	As required
<u>Strength of figure</u>						
<u>R₁ between bases</u>						
Desirable limit	25	60	80	80	100	125
Maximum limit	30	80	110	120	130	175
<u>Single figure</u>						
Desirable limit	5	10	15	15	25	25
R ₂	10	30	50	70	80	120
<u>Maximum limit</u>						
R ₁	10	25	25	25	40	50
R ₂	15	60	80	100	120	170

*Additional stations of same accuracy may be interspersed among principal stations.

TABLE I
(cont'd)

	FIRST-ORDER			SECOND-ORDER			THIRD ORDER
	Class I	Class II	Class III	Class I	Class II	Class III	
<u>Base measurement</u>							
Actual error not to exceed	1 part in 300,000	1 part in 300,000	1 part in 300,000	1 part in 300,000	1 part in 150,000	1 part in 75,000	1 part in 75,000
Probable error not to exceed	1 part in 1,000,000	1 part in 1,000,000	1 part in 1,000,000	1 part in 1,000,000	1 part in 500,000	1 part in 250,000	1 part in 250,000
<u>Triangle closure</u>							
Average not to exceed	1"	1"	1"	1".5	3"	5"	5"
Max. not to exceed	3"	3"	3"	5"	5"	10"	10"
<u>Side checks</u>							
Ratio of maximum difference of logs of sides to tabl. diff. for 1" of log sine of smallest angle	1.5	1.5-2	2	2-4	4	10-12	10-12
OR in side equation test, avg corr. to direction not to exceed	0".3	0".4	0".4	0".6	0".8	2"	2"
<u>Astro. Azimuths Spacing-figures Probable error</u>	6-8 0".3	6-10 0".3	8-10 0".3	8-10 0".3	10-12 0".5	12-15 2".0	12-15 2".0
<u>Closure in length (also position when applicable) after side & angle conditions have been satisfied, should not exceed</u>	1 part in 100,000	1 part in 50,000	1 part in 25,000	1 part in 20,000	1 part in 10,000	1 part in 5,000	1 part in 5,000

TABLE II
TRAVERSE

	<u>FIRST-ORDER</u>	<u>SECOND-ORDER</u>	<u>THIRD-ORDER</u>
Number of azimuth courses between azimuth checks not to exceed	15	25	50
Astro. azimuth: Probable error of result	0".5	2".0	5".0
Azimuth closure at az. check points not to exceed*	2 sec \sqrt{N} or 1.0 sec. per station	10 sec. \sqrt{N} or 3.0 sec. per station	30 sec. \sqrt{N} or 8.0 sec. per station
Distance Measurements accurate within	1 in 35,000	1 in 15,000	1 in 7,500
After az. adjustment, closing error in position not to exceed*	0.66 ft \sqrt{M} or 1 in 25,000	1.67 ft \sqrt{M} or 1 in 10,000	3.34 ft \sqrt{M} or 1 in 5,000

N is the number of stations for carrying azimuth

M is the distance in miles

* The expressions for closing errors in traverse surveys are given in two forms. The expression containing the square root is designed for longer lines where higher proportional accuracy is required. The formula which gives the smaller permissible closure should be used.

TABLE III
LEVELING

	<u>FIRST-ORDER</u>	<u>SECOND-ORDER</u>	<u>THIRD-ORDER</u>
	<u>Class I</u>	<u>Class II</u>	

Spacing of lines and cross-lines	60 miles	25-35 miles	6 miles	Not specified
Average spacing of permanently marked bench marks along lines, not to exceed	1 mile	1 mile	1 mile	3 miles
Length of sections	1/2-1 mile	1/2-1 mile	1/2-1 mile	Not specified
Check between forward and backward running between fixed elevations or loop closures, not to exceed	4mm \sqrt{K} or 0.017 ft \sqrt{M}	8.4mm \sqrt{K} or 0.035 ft \sqrt{M}	8.4mm \sqrt{K} or 0.035 ft \sqrt{M}	12mm \sqrt{K} or 0.05 ft \sqrt{M}

K is the distance in kilometers

M is the distance in miles

Security Classification

DOCUMENT CONTROL DATA - R&D		
<small>(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)</small>		
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		2b. GROUP
3. REPORT TITLE RADC Photogrammetric range		
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5. AUTHOR(S) (Last name, first name, initial) Cracknell, Robert W. Merchant, Dean Zulch, Donald		
6. REPORT DATE May 1966	7a. TOTAL NO. OF PAGES 285	7b. NO. OF REFS 4
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10. AVAILABILITY/LIMITATION NOTICES This document is subject to special export controls and each transmittal to foreign governments or foreign nationals may be made only with prior approval of RADC (EMLI) GAFB, N.Y. 13440.		
11. SUPPLEMENTARY NOTES	12. SPONSORING MILITARY ACTIVITY Rome Air Development Center/EMASI Griffiss AFB, N. Y. 13440	
13. ABSTRACT This report describes the location and position of the RADC Photogrammetric Range used to calibrate the accuracy of ground based radars under test at Rome Air Development Center. The range was designed to evaluate a particular radar; however, it is generally applicable to a number of airborne photographic applications.		

KEY WORDS

Photogrammetry
Range
Aerial Reconnaissance

LINK A		LINK B		LINK C	
ROLE	WT	ROLE	WT	ROLE	WT

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