

WPRC

WESTERN PENNSYLVANIA REPEATER COUNCIL

FREQUENCY COORDINATING COMMITTEE

HAAT CALCULATION WORKSHEET

Use this worksheet to calculate your repeater transmitting antenna's Height Above Average Terrain (HAAT).

DO NOT RETURN THIS FORM TO WPRC. IT IS FOR YOUR USE ONLY

*Transmit Site Ground Elevation above Mean Sea Level: _____ Feet

Height of Center of Antenna above the Ground: _____ Feet

Antenna Make and Model: _____

*Identification of Topographical Map Used: _____

On a Topographical Map, plot 8 radials at 45 degree increments, centered on the transmitter location. Now plot circles at 2-, 4-, 6-, 8-, and 10-mile radii, centered on the transmitter location. Determine the ground elevation at the 40 points of intersection of the eight radials and five circles, and enter these into Table III (See Figure 1 for example of plot).

CIRCLE RADIUS	RADIAL DEGREES								TOTALS
	0	45	90	135	180	225	270	315	
2 Miles									
4 Miles									
6 Miles									
8 Miles									
10 Miles									
TABLE III									GRAND TOTAL:

Determine Antenna Height Above Sea Level

Transmit Site Ground Elevation: _____ Feet
 ADD Antenna Height Above Ground: + _____ Feet
 EQUALS Antenna Height Above Sea Level: = _____ Feet

Now calculate your antenna HAAT:

Antenna Height above Sea Level: _____ Feet

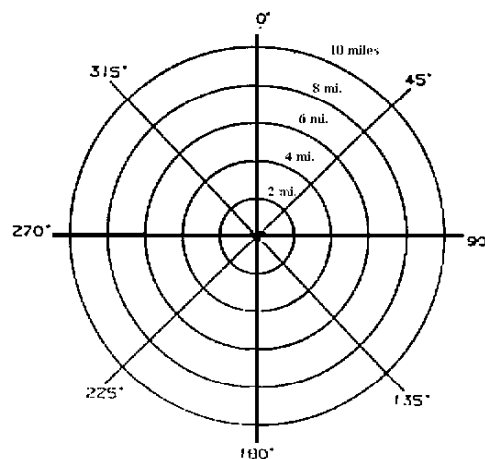
MINUS Average Ground Elevation: - _____ Feet

EQUALS Antenna HAAT: = _____ Feet

Determine Average Ground Elevation

GRAND TOTAL from Above: _____ Feet
 DIVIDE BY 40: ÷ 40
 EQUALS Average Ground Elevation: = _____ Feet

FIGURE 1
(Not Drawn to Scale)



*Site elevation and information on where to obtain a Topographical Map for your location may be obtained from the County Engineer's Office or from a local Surveyor. Indexes and ordering information for suitable topographical maps are available from the U.S. Geological Survey, Washington, DC, 20242, or from the Federal Center, Denver, Colorado 80255.