Ohio Area Repeater Council, Inc.

HAAT Calculation Worksheet

This worksheet may be used to calculate your repeater transmitting antenna height above average terrain. This must be provided on OARC form 103 or 104.

Repeater Call Sign:_____/R Repeater Output Frequency:_____MHz

Exact location of repeater system transmit antenna:_____

Transmit site ground elevation above mean sea level (AMSL):_____ft

Height of center of antenna above ground: _____ft

Antenna make and model:_____

Identification of topographical map used:_____

*Information on how to secure a topographical map may be obtained from your county engineer or the USGS, Washington DC

On a topographical map, plot 8 radials at 45 degree increments, centered on the transmit site location. On the map, plot circles at 2, 4, 6, 8 and 10 mile radii, centered on the transmit site location. Next, determine the ground elevation at each of the 40 points that intersect the 8 radials at each circle. Enter the elevation numbers in feet into Table III (see figure 1 for an example of the plot).

TABLE III

Radial Degrees

Mile	0	45	90	135	180	225	270	315	Total
2									0
4									0
6									0
8									0
10									0
Total	0	0	0	0	0	0	0	0	0

Determine antenna height above mean sea level (AMSL):

Transmit site ground elevation: 0 ft
ADD antenna height above ground: 0 ft
EQUALS AMSL (Enter on Form 103/104): 0 ft (A)

Determine average ground level (AGL):

Grand Total from Table III: 0 ft
Divide by 40: 40
EQUALS AGL: 0 ft (B)

To calculate your antenna HAAT, enter (A): 0 ft
MINUS (B): (0)ft
EQUALS HAAT (Enter on Form 103/104): 0 ft

Figure 1
(not drawn to scale)