

## Antenna Height Above Average Terrain Calculations -- Results

### Input Data

Latitude **42° 59' 34" North**

Longitude **71° 27' 50" West (NAD 27)**

These coordinates convert to NAD 83 coordinates of  
42° 59' 34.30", North, 71° 27' 48.24" West (NAD 83).

Height of antenna radiation center above mean sea level: **152 meters AMSL**

Number of Evenly Spaced Radials = **360**      0° is referenced to True North

### Results

Calculated HAAT = **32 meters**

Antenna Height Above Average Terrain calculated  
using 1 km [GLOBE terrain data](#)

#### Individual "Radial HAAT" Values, in meters

0°	90.1 m	120°	46.7 m	240°	1.2 m
1°	88.6 m	121°	47.1 m	241°	-3.2 m
2°	82.6 m	122°	48.2 m	242°	-7.2 m
3°	77.0 m	123°	50.1 m	243°	-10.2 m
4°	71.5 m	124°	51.9 m	244°	-12.4 m
5°	65.6 m	125°	53.0 m	245°	-13.8 m
6°	61.1 m	126°	53.5 m	246°	-15.1 m
7°	58.3 m	127°	53.9 m	247°	-17.4 m
8°	56.0 m	128°	54.3 m	248°	-20.6 m
9°	54.0 m	129°	55.0 m	249°	-24.1 m
10°	51.9 m	130°	55.7 m	250°	-26.8 m
11°	50.4 m	131°	56.2 m	251°	-28.8 m
12°	49.2 m	132°	56.5 m	252°	-30.6 m
13°	48.2 m	133°	56.5 m	253°	-32.2 m
14°	47.3 m	134°	56.5 m	254°	-32.3 m
15°	45.7 m	135°	56.5 m	255°	-31.2 m
16°	42.2 m	136°	56.6 m	256°	-30.8 m
17°	38.3 m	137°	56.7 m	257°	-31.8 m
18°	34.1 m	138°	56.4 m	258°	-34.2 m
19°	29.0 m	139°	55.1 m	259°	-36.9 m
20°	23.0 m	140°	53.5 m	260°	-39.1 m
21°	17.0 m	141°	52.9 m	261°	-41.0 m
22°	12.7 m	142°	53.1 m	262°	-41.3 m
23°	10.1 m	143°	53.1 m	263°	-39.9 m
24°	7.6 m	144°	52.2 m	264°	-37.8 m
25°	5.2 m	145°	51.9 m	265°	-35.9 m
26°	4.8 m	146°	53.2 m	266°	-34.0 m

27°	6.7 m	147°	55.6 m	267°	-31.8 m
28°	7.9 m	148°	57.9 m	268°	-27.4 m
29°	6.8 m	149°	59.8 m	269°	-21.4 m
30°	4.4 m	150°	60.7 m	270°	-15.4 m
31°	1.3 m	151°	60.7 m	271°	-9.4 m
32°	-1.8 m	152°	60.6 m	272°	-3.7 m
33°	-3.9 m	153°	61.3 m	273°	2.4 m
34°	-3.8 m	154°	62.2 m	274°	9.4 m
35°	-2.3 m	155°	62.8 m	275°	16.6 m
36°	-1.4 m	156°	63.6 m	276°	23.3 m
37°	-1.9 m	157°	64.9 m	277°	29.6 m
38°	-3.5 m	158°	66.3 m	278°	35.5 m
39°	-5.7 m	159°	67.8 m	279°	41.0 m
40°	-7.8 m	160°	69.6 m	280°	46.0 m
41°	-9.2 m	161°	71.4 m	281°	50.8 m
42°	-9.2 m	162°	72.7 m	282°	55.7 m
43°	-7.6 m	163°	73.7 m	283°	60.3 m
44°	-5.2 m	164°	74.7 m	284°	62.8 m
45°	-2.9 m	165°	76.4 m	285°	63.0 m
46°	-1.6 m	166°	78.4 m	286°	60.4 m
47°	-1.0 m	167°	80.4 m	287°	56.0 m
48°	-0.3 m	168°	82.5 m	288°	50.3 m
49°	1.1 m	169°	84.5 m	289°	44.9 m
50°	2.9 m	170°	86.7 m	290°	40.0 m
51°	4.2 m	171°	88.7 m	291°	35.8 m
52°	4.9 m	172°	90.3 m	292°	32.1 m
53°	5.4 m	173°	91.7 m	293°	28.6 m
54°	6.3 m	174°	92.9 m	294°	25.2 m
55°	6.5 m	175°	93.2 m	295°	21.8 m
56°	5.6 m	176°	92.8 m	296°	18.8 m
57°	3.1 m	177°	91.4 m	297°	16.9 m
58°	0.3 m	178°	90.7 m	298°	15.5 m
59°	-1.2 m	179°	90.2 m	299°	14.9 m
60°	-0.5 m	180°	89.9 m	300°	13.8 m
61°	2.3 m	181°	90.4 m	301°	11.4 m
62°	6.5 m	182°	90.9 m	302°	7.3 m
63°	11.1 m	183°	90.4 m	303°	2.1 m
64°	15.5 m	184°	89.1 m	304°	-3.5 m
65°	19.5 m	185°	87.4 m	305°	-7.7 m
66°	23.1 m	186°	85.2 m	306°	-10.4 m
67°	26.3 m	187°	83.9 m	307°	-12.2 m
68°	29.3 m	188°	83.1 m	308°	-13.8 m
69°	32.7 m	189°	82.2 m	309°	-15.3 m
70°	36.4 m	190°	81.0 m	310°	-16.1 m
71°	39.7 m	191°	80.5 m	311°	-15.2 m
72°	41.6 m	192°	79.8 m	312°	-12.7 m
73°	42.4 m	193°	78.6 m	313°	-8.8 m
74°	42.5 m	194°	77.3 m	314°	-3.6 m
75°	43.0 m	195°	77.1 m	315°	1.8 m
76°	44.8 m	196°	77.6 m	316°	6.5 m
77°	46.6 m	197°	77.8 m	317°	10.0 m
78°	47.3 m	198°	77.2 m	318°	11.7 m
79°	47.0 m	199°	76.2 m	319°	11.1 m
80°	45.8 m	200°	75.4 m	320°	8.4 m
81°	44.5 m	201°	74.2 m	321°	4.4 m
82°	44.2 m	202°	72.7 m	322°	0.3 m
83°	44.5 m	203°	71.2 m	323°	-3.3 m



83°	44.5 m	203°	71.2 m	323°	-3.3 m
84°	44.9 m	204°	69.6 m	324°	-6.2 m
85°	45.4 m	205°	68.1 m	325°	-9.0 m
86°	46.3 m	206°	66.9 m	326°	-11.8 m
87°	47.2 m	207°	66.2 m	327°	-14.5 m
88°	47.8 m	208°	65.2 m	328°	-17.2 m
89°	47.6 m	209°	63.6 m	329°	-19.9 m
90°	46.7 m	210°	62.0 m	330°	-22.5 m
91°	45.8 m	211°	60.4 m	331°	-24.8 m
92°	44.9 m	212°	58.7 m	332°	-26.5 m
93°	44.4 m	213°	57.6 m	333°	-27.3 m
94°	44.8 m	214°	57.4 m	334°	-26.4 m
95°	45.5 m	215°	57.9 m	335°	-24.2 m
96°	46.8 m	216°	58.5 m	336°	-22.5 m
97°	48.0 m	217°	59.0 m	337°	-21.6 m
98°	48.9 m	218°	58.2 m	338°	-20.4 m
99°	49.3 m	219°	56.2 m	339°	-17.1 m
100°	48.2 m	220°	53.0 m	340°	-11.4 m
101°	46.7 m	221°	49.7 m	341°	-4.7 m
102°	44.8 m	222°	47.3 m	342°	1.5 m
103°	43.6 m	223°	46.2 m	343°	7.0 m
104°	42.9 m	224°	45.7 m	344°	12.1 m
105°	42.0 m	225°	44.9 m	345°	16.7 m
106°	41.2 m	226°	43.2 m	346°	20.2 m
107°	41.2 m	227°	41.2 m	347°	23.6 m
108°	41.5 m	228°	39.4 m	348°	26.0 m
109°	41.9 m	229°	37.5 m	349°	28.8 m
110°	42.6 m	230°	34.8 m	350°	31.0 m
111°	43.8 m	231°	32.1 m	351°	33.1 m
112°	45.6 m	232°	29.5 m	352°	36.5 m
113°	47.0 m	233°	26.4 m	353°	41.5 m
114°	47.3 m	234°	22.5 m	354°	47.6 m
115°	46.9 m	235°	18.0 m	355°	55.2 m
116°	46.5 m	236°	14.5 m	356°	62.5 m
117°	46.4 m	237°	11.8 m	357°	69.9 m
118°	46.7 m	238°	9.2 m	358°	76.6 m
119°	46.7 m	239°	5.8 m	359°	83.3 m

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