



## Audio Division

(202)-418-2700

### Antenna Height Above Average Terrain (HAAT) / Contour Calculations

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## Antenna Height Above Average Terrain Calculations -- Input

Latitude **40 48 6.0 North**  
Longitude **73 26 3.0 West** (NAD 27)

Height of antenna radiation center above mean sea level [RCAMSL] = **165.0** meters

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

## Results:

**Calculated HAAT= 129. meters**

(Antenna Height Above Average Terrain)  
using the 30 second FCC/NGDC terrain data)

## Antenna Radiation Center Heights Above Individual Radials:

0.0°	138.5 meters
1.0°	139.4 meters
2.0°	140.5 meters
3.0°	141.7 meters
4.0°	142.6 meters
5.0°	142.9 meters
6.0°	142.7 meters
7.0°	142.2 meters
8.0°	141.8 meters
9.0°	140.7 meters
10.0°	139.1 meters
11.0°	136.9 meters
12.0°	134.5 meters
13.0°	132.3 meters
14.0°	131.5 meters
15.0°	131.8 meters
16.0°	132.6 meters
17.0°	132.8 meters
18.0°	132.6 meters
19.0°	132.2 meters
20.0°	131.8 meters

21.0°	131.6 meters
22.0°	131.5 meters
23.0°	131.6 meters
24.0°	131.8 meters
25.0°	131.8 meters
26.0°	131.4 meters
27.0°	130.7 meters
28.0°	129.8 meters
29.0°	128.8 meters
30.0°	127.8 meters
31.0°	126.7 meters
32.0°	126.0 meters
33.0°	125.5 meters
34.0°	124.2 meters
35.0°	122.2 meters
36.0°	119.8 meters
37.0°	117.6 meters
38.0°	115.8 meters
39.0°	114.4 meters
40.0°	113.2 meters
41.0°	112.1 meters
42.0°	110.7 meters
43.0°	109.3 meters
44.0°	108.1 meters
45.0°	107.5 meters
46.0°	107.3 meters
47.0°	107.2 meters
48.0°	107.0 meters
49.0°	106.6 meters
50.0°	106.1 meters
51.0°	105.5 meters
52.0°	105.2 meters
53.0°	105.2 meters
54.0°	105.1 meters
55.0°	105.1 meters
56.0°	105.2 meters
57.0°	105.6 meters
58.0°	106.0 meters
59.0°	106.6 meters
60.0°	107.3 meters
61.0°	108.1 meters
62.0°	108.9 meters
63.0°	109.8 meters
64.0°	110.7 meters
65.0°	111.4 meters
66.0°	112.0 meters
67.0°	112.4 meters
68.0°	112.6 meters
69.0°	112.6 meters
70.0°	

	112.5 meters
71.0°	112.2 meters
72.0°	111.7 meters
73.0°	111.0 meters
74.0°	110.4 meters
75.0°	109.8 meters
76.0°	109.4 meters
77.0°	109.1 meters
78.0°	108.6 meters
79.0°	108.3 meters
80.0°	108.0 meters
81.0°	107.6 meters
82.0°	107.4 meters
83.0°	107.3 meters
84.0°	107.9 meters
85.0°	109.2 meters
86.0°	110.9 meters
87.0°	112.7 meters
88.0°	114.0 meters
89.0°	115.4 meters
90.0°	116.7 meters
91.0°	118.2 meters
92.0°	120.0 meters
93.0°	121.7 meters
94.0°	123.4 meters
95.0°	124.9 meters
96.0°	126.0 meters
97.0°	126.8 meters
98.0°	127.5 meters
99.0°	128.3 meters
100.0°	128.9 meters
101.0°	129.6 meters
102.0°	130.4 meters
103.0°	131.0 meters
104.0°	131.4 meters
105.0°	131.6 meters
106.0°	132.0 meters
107.0°	132.5 meters
108.0°	133.1 meters
109.0°	133.7 meters
110.0°	134.5 meters
111.0°	135.3 meters
112.0°	136.2 meters
113.0°	136.7 meters
114.0°	137.1 meters
115.0°	137.3 meters
116.0°	137.7 meters
117.0°	138.1 meters
118.0°	138.7 meters
119.0°	

	139.2 meters
120.0°	139.7 meters
121.0°	140.1 meters
122.0°	140.5 meters
123.0°	140.9 meters
124.0°	141.3 meters
125.0°	141.7 meters
126.0°	142.1 meters
127.0°	142.5 meters
128.0°	142.9 meters
129.0°	143.2 meters
130.0°	143.6 meters
131.0°	144.0 meters
132.0°	144.3 meters
133.0°	144.9 meters
134.0°	145.5 meters
135.0°	146.1 meters
136.0°	146.7 meters
137.0°	147.4 meters
138.0°	148.3 meters
139.0°	149.3 meters
140.0°	150.0 meters
141.0°	150.3 meters
142.0°	150.4 meters
143.0°	150.4 meters
144.0°	150.4 meters
145.0°	150.4 meters
146.0°	150.5 meters
147.0°	150.4 meters
148.0°	150.3 meters
149.0°	150.2 meters
150.0°	150.1 meters
151.0°	150.2 meters
152.0°	150.4 meters
153.0°	150.6 meters
154.0°	150.7 meters
155.0°	150.6 meters
156.0°	150.3 meters
157.0°	150.2 meters
158.0°	150.1 meters
159.0°	150.2 meters
160.0°	150.2 meters
161.0°	150.2 meters
162.0°	150.0 meters
163.0°	149.9 meters
164.0°	150.0 meters
165.0°	150.1 meters
166.0°	150.1 meters
167.0°	150.0 meters
168.0°	

	149.7 meters
169.0°	149.4 meters
170.0°	149.0 meters
171.0°	148.6 meters
172.0°	148.5 meters
173.0°	148.4 meters
174.0°	148.3 meters
175.0°	148.1 meters
176.0°	147.8 meters
177.0°	147.5 meters
178.0°	147.2 meters
179.0°	146.8 meters
180.0°	146.5 meters
181.0°	146.0 meters
182.0°	145.4 meters
183.0°	145.0 meters
184.0°	144.7 meters
185.0°	144.2 meters
186.0°	143.8 meters
187.0°	143.6 meters
188.0°	143.4 meters
189.0°	143.3 meters
190.0°	143.3 meters
191.0°	143.3 meters
192.0°	143.4 meters
193.0°	143.5 meters
194.0°	143.2 meters
195.0°	142.9 meters
196.0°	142.5 meters
197.0°	142.0 meters
198.0°	141.6 meters
199.0°	141.4 meters
200.0°	141.4 meters
201.0°	141.7 meters
202.0°	142.2 meters
203.0°	142.8 meters
204.0°	143.2 meters
205.0°	143.3 meters
206.0°	143.2 meters
207.0°	143.0 meters
208.0°	142.7 meters
209.0°	142.4 meters
210.0°	142.1 meters
211.0°	141.8 meters
212.0°	141.4 meters
213.0°	141.0 meters
214.0°	140.5 meters
215.0°	140.1 meters
216.0°	139.8 meters

217.0°

	139.5 meters
218.0°	139.3 meters
219.0°	139.0 meters
220.0°	138.5 meters
221.0°	138.1 meters
222.0°	137.9 meters
223.0°	137.8 meters
224.0°	137.5 meters
225.0°	137.0 meters
226.0°	136.3 meters
227.0°	135.6 meters
228.0°	134.7 meters
229.0°	133.9 meters
230.0°	133.2 meters
231.0°	132.6 meters
232.0°	132.1 meters
233.0°	131.7 meters
234.0°	131.2 meters
235.0°	130.9 meters
236.0°	130.8 meters
237.0°	130.6 meters
238.0°	130.3 meters
239.0°	129.9 meters
240.0°	129.5 meters
241.0°	128.8 meters
242.0°	128.0 meters
243.0°	127.0 meters
244.0°	126.2 meters
245.0°	125.6 meters
246.0°	125.0 meters
247.0°	124.3 meters
248.0°	123.6 meters
249.0°	123.2 meters
250.0°	123.0 meters
251.0°	122.8 meters
252.0°	122.2 meters
253.0°	121.4 meters
254.0°	120.4 meters
255.0°	119.5 meters
256.0°	118.6 meters
257.0°	117.8 meters
258.0°	116.9 meters
259.0°	115.8 meters
260.0°	114.7 meters
261.0°	113.6 meters
262.0°	112.6 meters
263.0°	111.3 meters
264.0°	110.0 meters
265.0°	108.3 meters
266.0°	

	106.1 meters
267.0°	103.0 meters
268.0°	100.0 meters
269.0°	96.7 meters
270.0°	95.9 meters
271.0°	96.2 meters
272.0°	96.5 meters
273.0°	96.6 meters
274.0°	97.2 meters
275.0°	98.7 meters
276.0°	100.6 meters
277.0°	102.8 meters
278.0°	104.5 meters
279.0°	105.7 meters
280.0°	107.1 meters
281.0°	108.2 meters
282.0°	109.1 meters
283.0°	109.7 meters
284.0°	109.9 meters
285.0°	109.7 meters
286.0°	109.3 meters
287.0°	108.9 meters
288.0°	108.5 meters
289.0°	108.1 meters
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297.0°	107.4 meters
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301.0°	107.2 meters
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323.0°	140.8 meters
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326.0°	138.1 meters
327.0°	136.9 meters
328.0°	135.8 meters
329.0°	135.3 meters
330.0°	135.7 meters
331.0°	137.2 meters
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333.0°	142.4 meters
334.0°	145.1 meters
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350.0°	128.3 meters
351.0°	129.7 meters
352.0°	131.3 meters
353.0°	132.5 meters
354.0°	133.5 meters
355.0°	134.2 meters
356.0°	135.1 meters
357.0°	136.1 meters
358.0°	136.7 meters
359.0°	137.6 meters

### New Antenna Height Above Average Terrain (HAAT) calculation?



Federal Communications Commission  
445 12th Street SW  
Washington, DC 20554  
[More FCC Contact Information...](#)

Phone: 1-888-CALL-FCC (1-888-225-5322)  
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