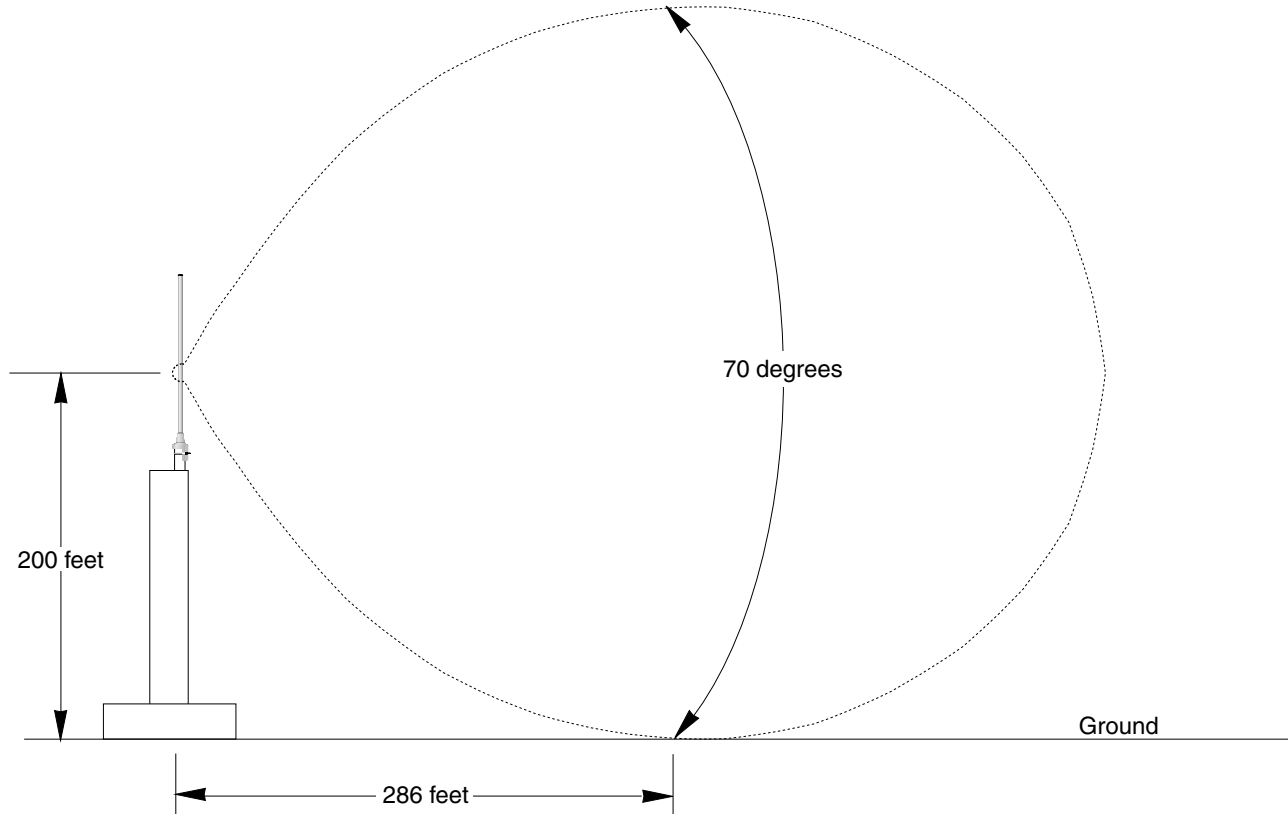


**Calculating HPBW Touchdown Point**



**Formula\***

$$\text{Distance} = \frac{H}{\tan\left(\frac{\text{HPBW}}{2} + \text{DTA}\right)}$$

H = Height of antenna from the ground (ft)

HPBW = Vertical half-power beamwidth (deg)

DTA = Downtilt angle expressed as a positive value (deg)

\* This formula is for level terrain calculations only.

**Example**

$$(70^\circ \div 2) + 0 = 35$$

$$\tan(35) = .7002$$

$$200 \div .7002 = 286 \text{ feet}$$



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