

QEX File

Effects Due To Ground For Small Transmitting Loops

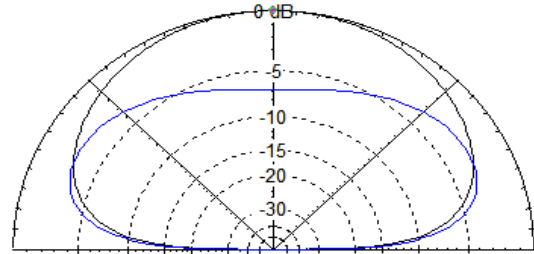
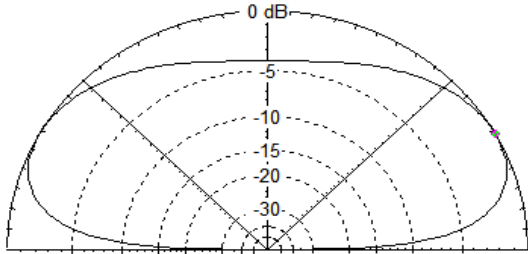
Peter DeNeef, AE7PD

	<u>Pages</u>
29 MHz	2 - 3
21 MHz	4 - 5
14 MHz	6 - 7
7 MHz	8 - 9

29 MHz

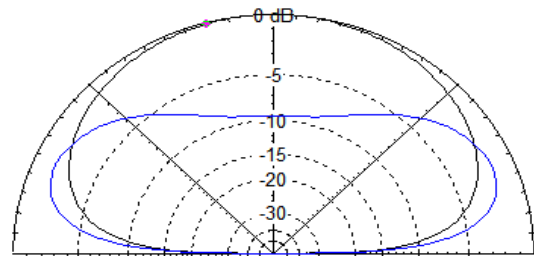
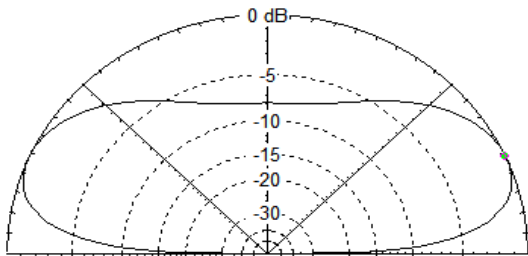
Capacitor at Top

Capacitor at Bottom



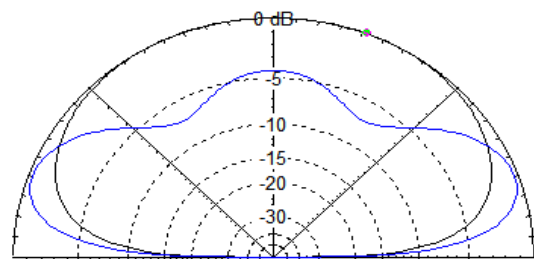
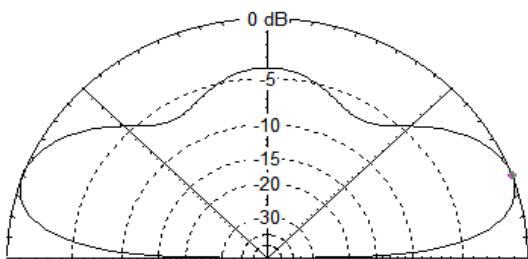
h = 1.0 Outer Arc = -0.1 dBi

h = 1.0 m Outer Arc = 2.7 dBi



h = 1.5 m Outer Arc = 1.4 dBi

h = 1.5 m Outer Arc = 2.9 dBi



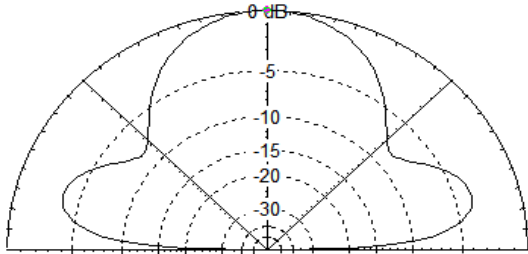
h = 2.0 m Outer Arc = 1.8 dBi

h = 2.0 m Outer Arc = 2.1 dBi

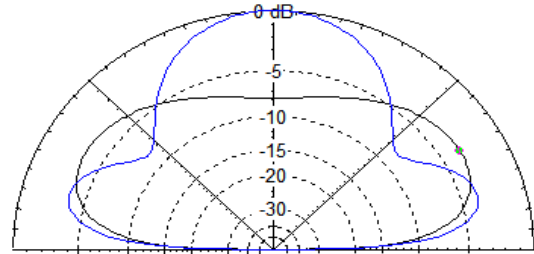
29 MHz

Capacitor at Top

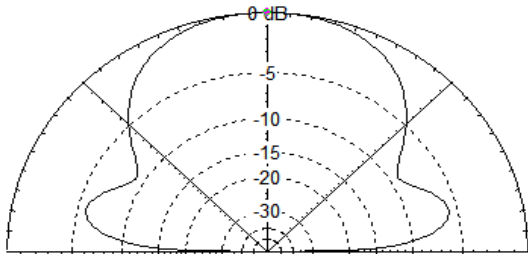
Capacitor at Bottom



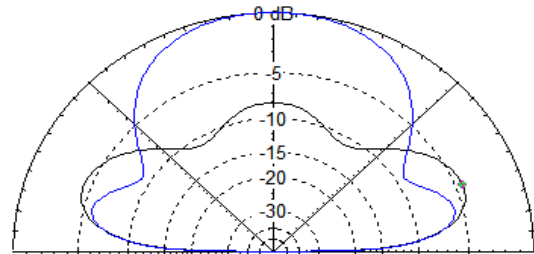
h = 3.0 Outer Arc = 4.5 dBi



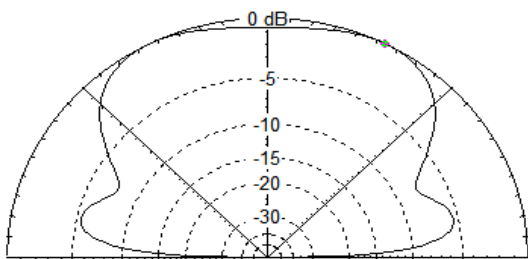
h = 3.0 m Outer Arc = 4.5 dBi



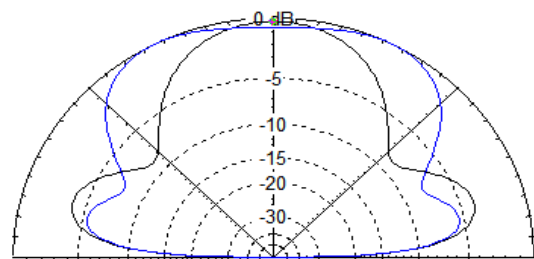
h = 4.0 m Outer Arc = 5.5 dBi



h = 4.0 m Outer Arc = 5.5 dBi



h = 5.0 m Outer Arc = 4.5 dBi

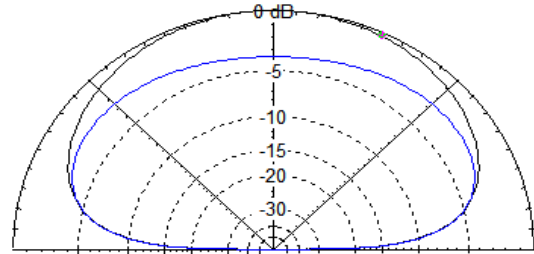
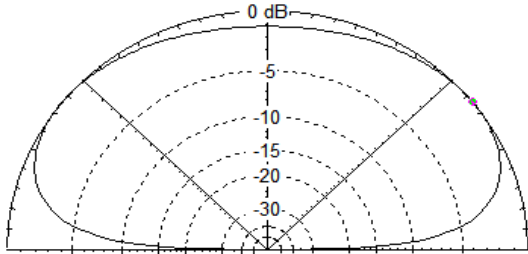


h = 5.0 m Outer Arc = 4.5 dBi

21 MHz

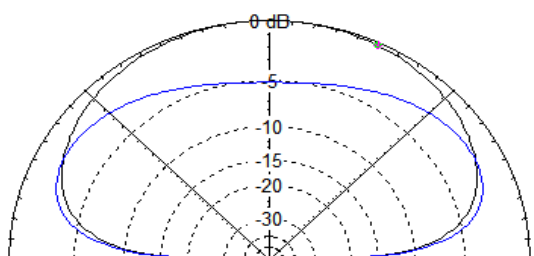
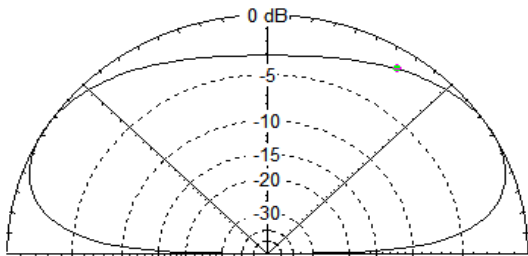
Capacitor at Top

Capacitor at Bottom



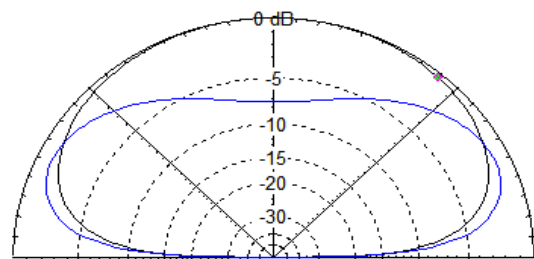
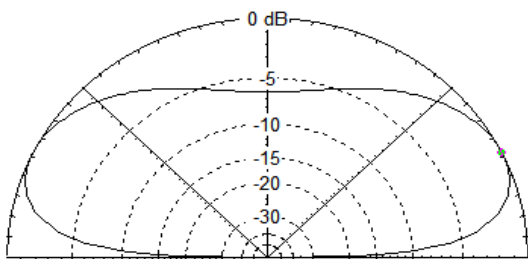
h = 1.0 Outer Arc = -1.0 dBi

h = 1.0 m Outer Arc = 1.5 dBi



h = 1.5 m Outer Arc = 0.3 dBi

h = 1.5 m Outer Arc = 2.2 dBi



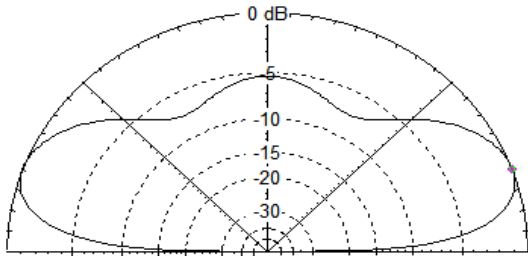
h = 2.0 m Outer Arc = 1.0 dBi

h = 2.0 m Outer Arc = 2.1 dBi

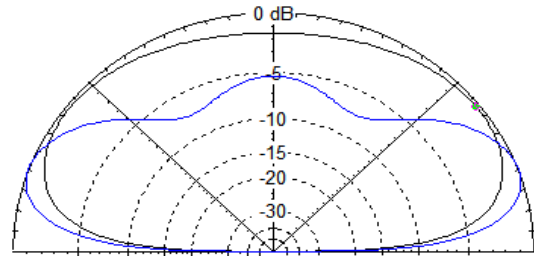
21 MHz

Capacitor at Top

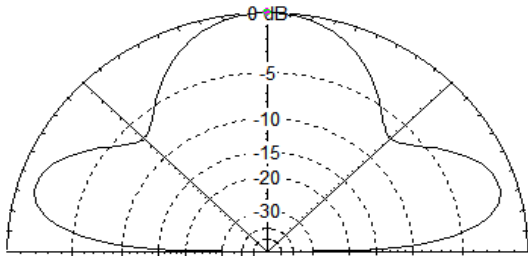
Capacitor at Bottom



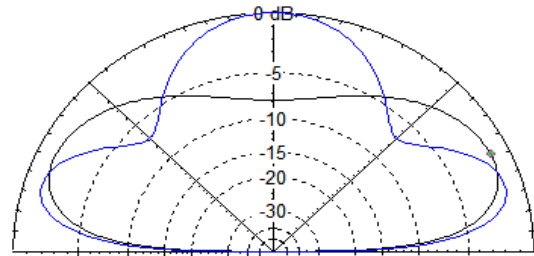
h = 3.0 Outer Arc = 1.5 dBi



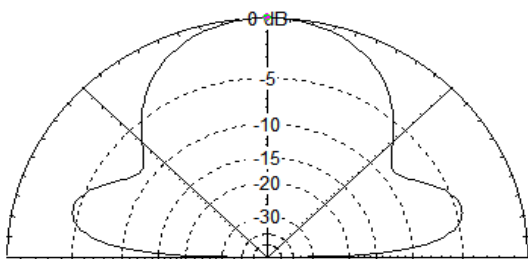
h = 3.0 m Outer Arc = 1.5 dBi



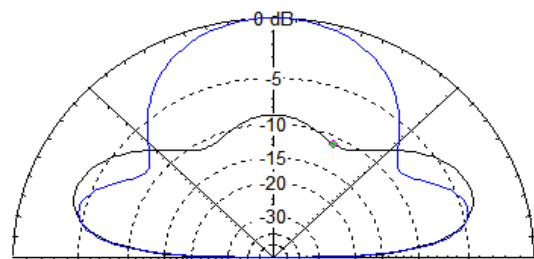
h = 4.0 m Outer Arc = 2.3 dBi



h = 4.0 m Outer Arc = 2.3 dBi



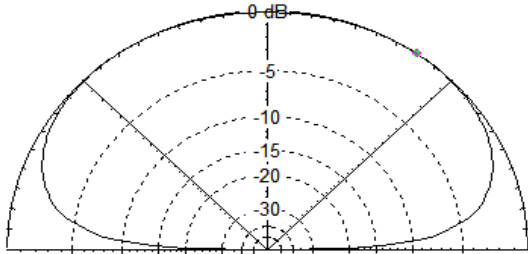
h = 5.0 m Outer Arc = 4.7 dBi



h = 5.0 m Outer Arc = 4.7 dBi

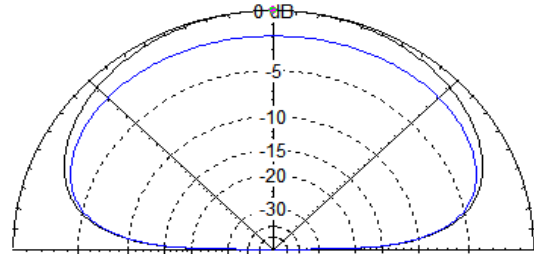
14 MHz

Capacitor at Top

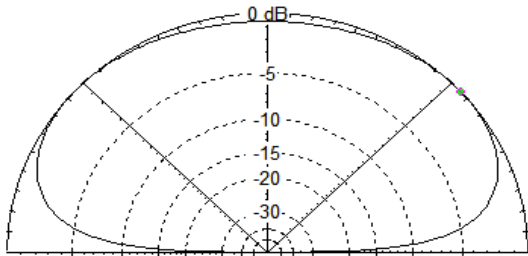


h = 1.0 Outer Arc = -2.4 dBi

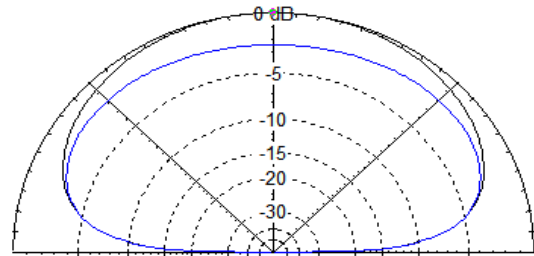
Capacitor at Bottom



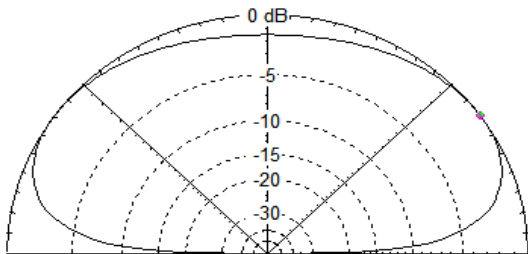
h = 1.0 m Outer Arc = -0.6 dBi



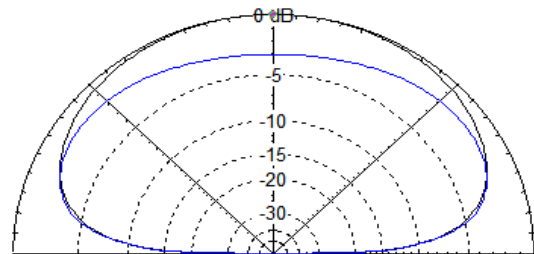
h = 1.5 m Outer Arc = -1.6 dBi



h = 1.5 m Outer Arc = 0.2 dBi



h = 2.0 m Outer Arc = -1.1 dBi

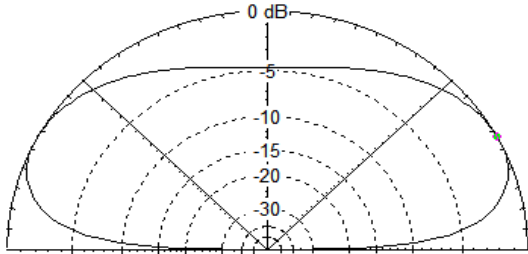


h = 2.0 m Outer Arc = 0.6 dBi

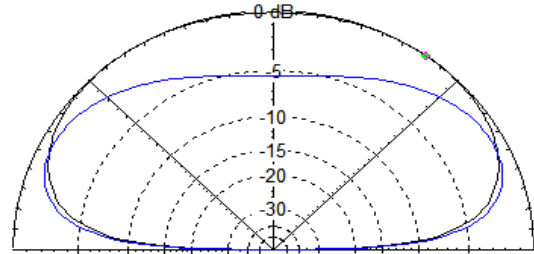
14 MHz

Capacitor at Top

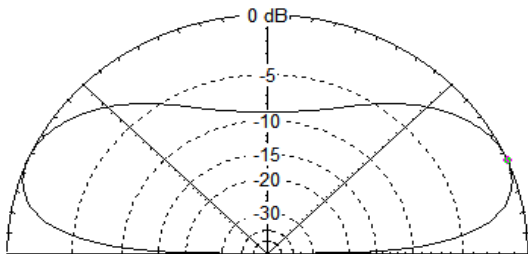
Capacitor at Bottom



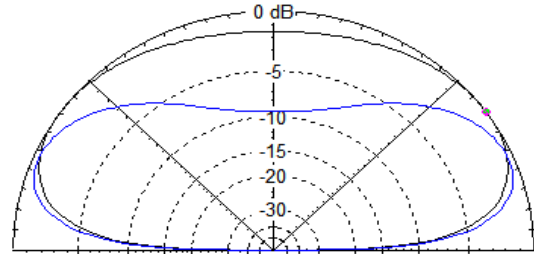
h = 3.0 Outer Arc = -0.7 dBi



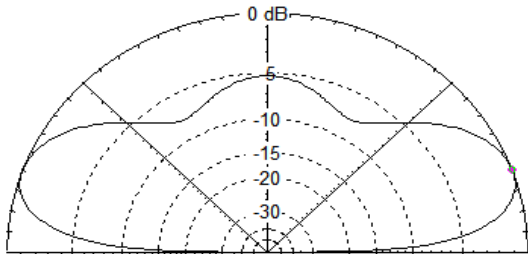
h = 3.0 m Outer Arc = 0.1 dBi



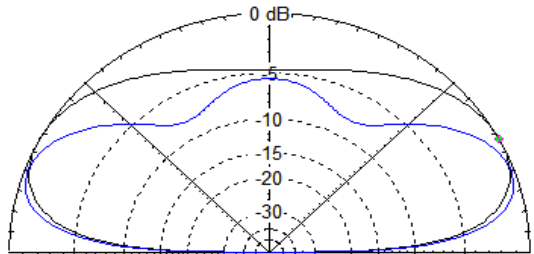
h = 4.0 m Outer Arc = -0.7 dBi



h = 4.0 m Outer Arc = -0.3 dBi



h = 5.0 m Outer Arc = -0.9 dBi

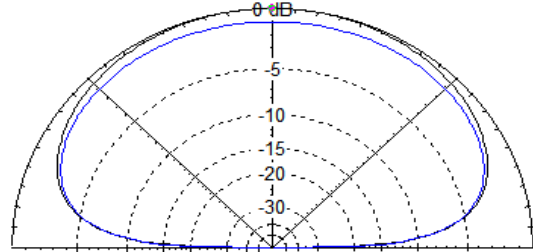
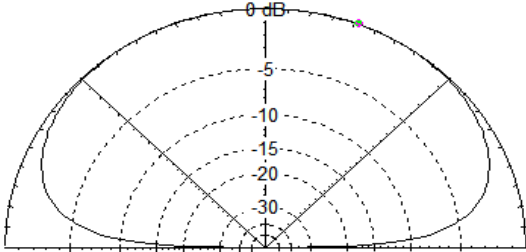


h = 5.0 m Outer Arc = -0.6 dBi

7 MHz

Capacitor at Top

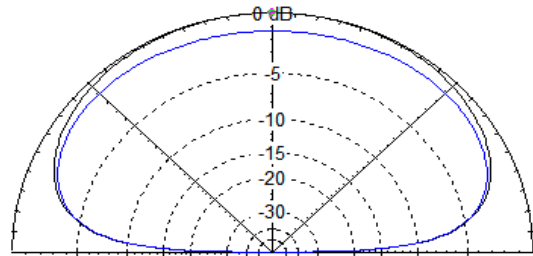
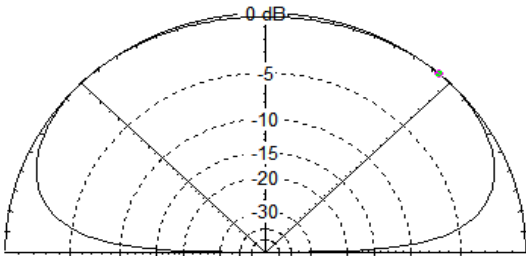
Capacitor at Bottom



h = 2.0 m Outer Arc = -6.9 dBi

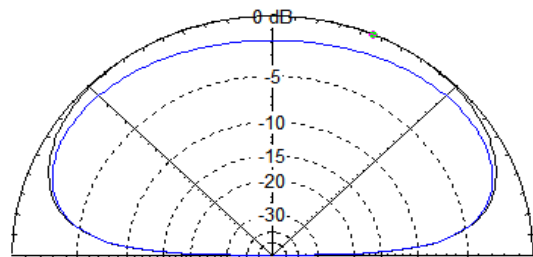
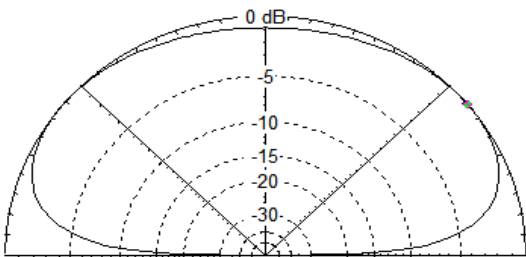
h = 2.0 m Outer Arc = -5.9 dBi

(NEC is not accurate below h=2.0 m for 7 MHz.)



h = 3.0 m Outer Arc = -6.9 dBi

h = 3.0 m Outer Arc = -5.9 dBi



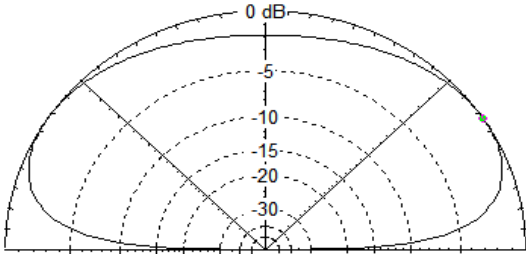
h = 4.0 m Outer Arc = -7.2 dBi

h = 4.0 m Outer Arc = -6.3 dBi

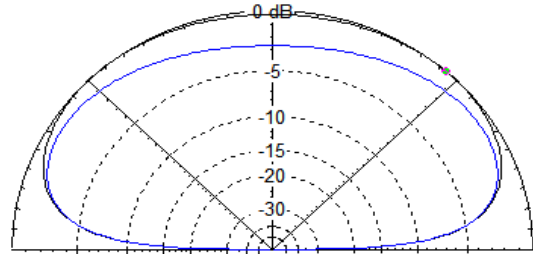
7 MHz

Capacitor at Top

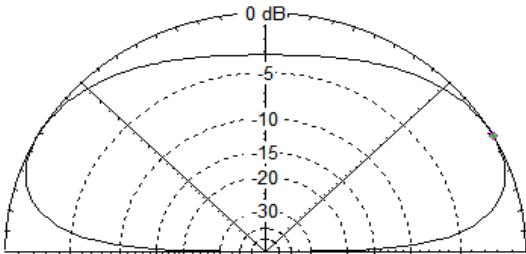
Capacitor at Bottom



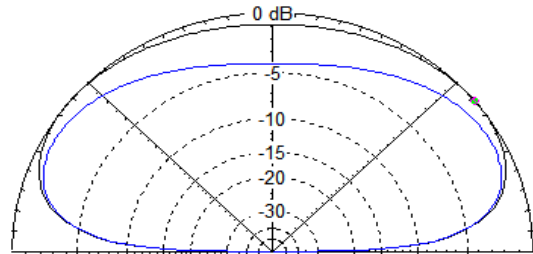
h = 5.0 Outer Arc = -7.6 dBi



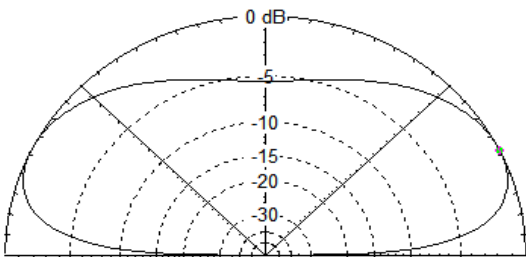
h = 5.0 m Outer Arc = -6.7 dBi



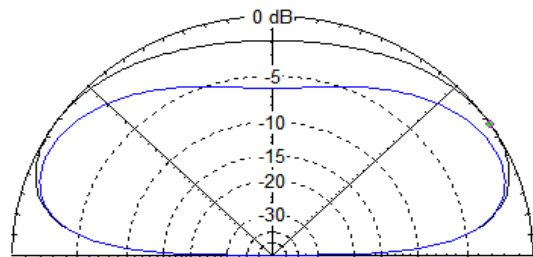
h = 6.0 m Outer Arc = -7.9 dBi



h = 6.0 m Outer Arc = -7.1 dBi



h = 7.0 m Outer Arc = -8.3 dBi



h = 7.0 m Outer Arc = -7.5 dBi