

1/4 Vertical bazooka antenna for the 40m

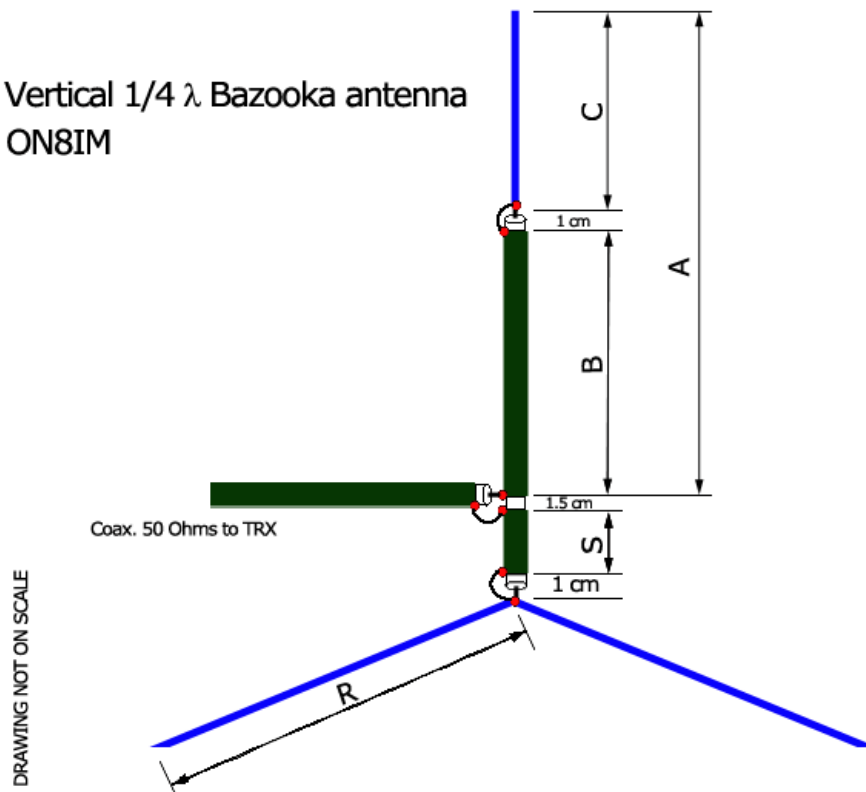
Details

Hits: 14439



I needed a omnidirectional antenna for the 40m.
Here is the schema of the antenna :

Vertical $1/4 \lambda$ Bazooka antenna
ON8IM



The design formulas are quite simple :

Dimensions in feet

$$A = 230/F \text{ (feet)}$$

$$B = A * Vf$$

$$C = (A - B)$$

$$S = 4''$$

$$R = A * 1.05$$

Dimensions in meters

$$A = (230/F)*0.305 \text{ (meters)}$$

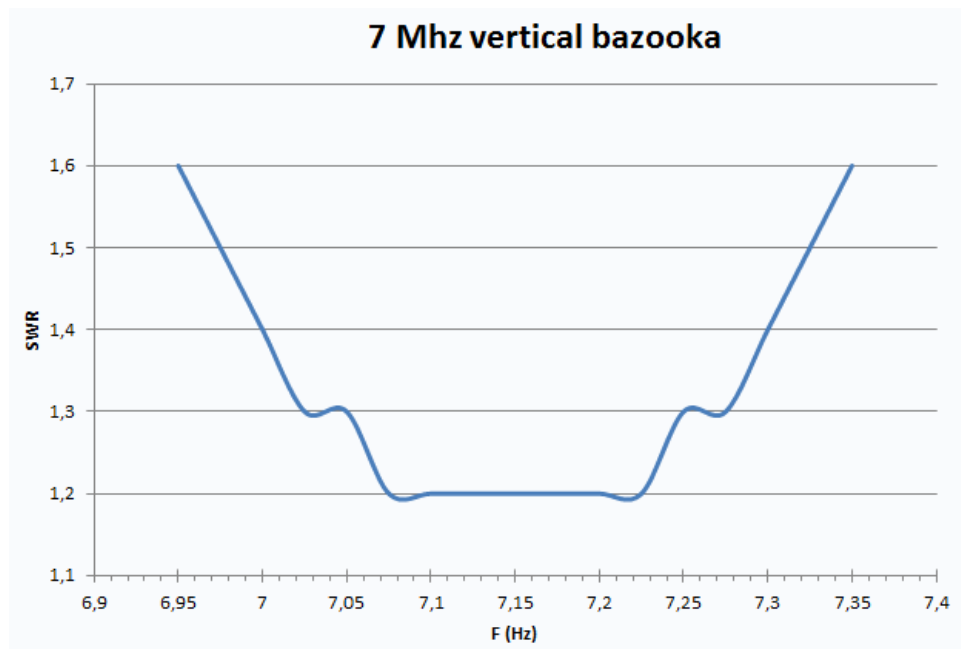
$$B = A * Vf$$

$C = (A - B)$
 $S = +/- 10\text{cm}$
 $R = A * 1.05$

The angle of the radials will be ideally between 35° and 45°

Vf (velocity factor of used coax) depends of the type of cable. Don't trust to much the classic 0.66 value : the best is to mesure the Vf with a antenna analyser, results are some surprising (espacialy when you use old coax cables).

Applied as there are, those formulas gived me results close to what theoretically expected.



No re-tuning was necessary.

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