N1EA de W6VX

Dear Dave 21 Nov 88

Tnx for your letter and PMG. Very interesting. Wrote 4 ltrs to K1UGA. No answer ept. We see wat hpns. Don't expect too much. The # still following the flag with de regulations! Damn the "administration"!

You spoke of stretched wires. Still using one here on 40m. It's 12 wires, 10 caps. a la G6CJ. 40m ÷ 12 = 3.3m each section = 11 1/2' at 40.8 m. (each section 30° out of 360° λ) Theory is that the X_L of each section of wire is 2 times the $-X_C$ of the capacitors, so that makes a full λ for a dipole, center fed. This multi 30° section is a miniature uniform current element which radiates an H field, while a 1/2 λ (180° dipole) radiates an E field with high voltage on the ends and high current in the center. The feed Z is abt 200 ohms. I use open wire line and tune the input in the shack. The caps. are 150pF ceramics NPO across small egg insulators. P.S. looks like 100pF is better by computer (K5RP) X '90

Works 15 on WARCs, Ell etc.

The H field pays no attention to grounded gutters, pipes, trees nearer than about a λ, or the ground its self. Less losses. What about "gain"? It's better than a dipole, but worse than a beam of course – hi. Mine is 28' up at the center and 10' at each end. Should be ok for dx at higher "ups", tho have worked Eu on good nights, 80w.

USE #16 wire. not larger Than #14

The pattern on 40 is figure 8 as is any dipole. You would feed it at one end like a Zepp. It works on any higher f, but develops multi lobes as you go up, (like a dipole).

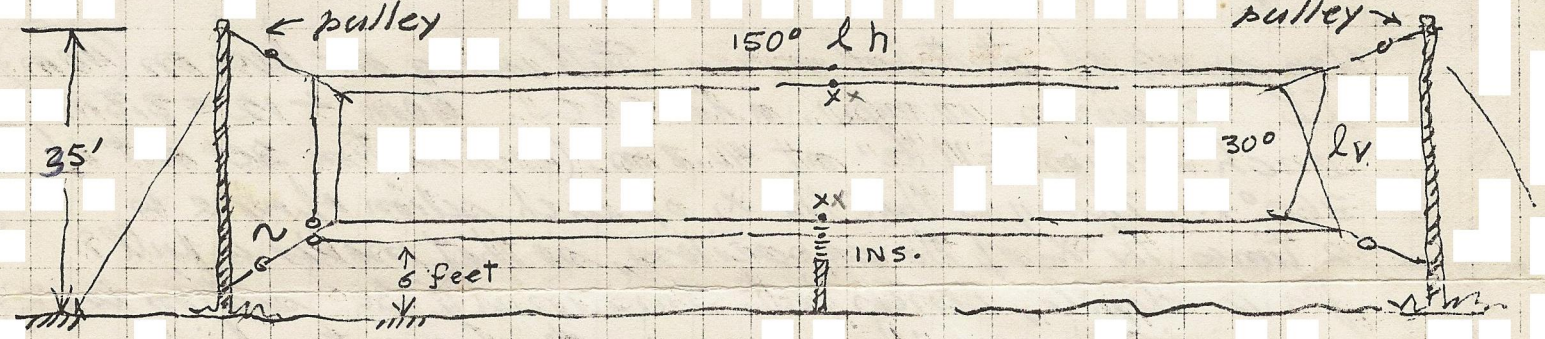
As Dud points out, you can hang it to the 1/2 λ 80m dipole from the same feeder, which is a thought.

Oh yeah, you can't draw sparks off the ends with a pencil – at 80w. – or anywhere along its length.

See ARRL "Ant. Compendium #2" Both ants are explained. Good book to have

PTO →

While my pencil is still working, here's another antenna to think about. KSRP developed it. Its a winner on 80 in particular 'cause most don't have 100' pine poles to hang double extended Zepps on.



Two full λ loops at 3750 KHz, 360° each

$$l_V = \frac{2.733 \cdot 30^\circ}{3.750} \approx \frac{82}{f} \approx 21.8' \text{ FEET}$$

$$l_h = \frac{2.733 \cdot 150^\circ}{3.750} \approx \frac{410}{f} \approx 109.3' \text{ FEET}$$

Its called a Multi U or "MU". It is a mono band broad side radiator. The feed point is around 150 Ω. You can use a W2DU bead balun, or open tuned feeders, or a coil of 75 Ω coax to 50 Ω coax etc. The spacing of the turns about a foot. *
Reason for the U name is that it is made of 4 half λ ⊏⊐ wires spliced together.

The max ∠ radiation is about 28° and competes with everything incl. an 80 m quad Loop or high dipole. ∠3dB down at 8° above the horizon.

* For tuning use ∠ slip joints and tack-soldering (To check resonance) on the upper and lower 150° runs. Or use clamps at x x

± 50 KHz at 3750 ≈ 24". If you are near home plate you can adjust only the lower run.

Vy 73 Dave

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