KL7JR 2 Element 28 MHz Off Center Fed Wire Beam

Put it in the attic or put it in the air!

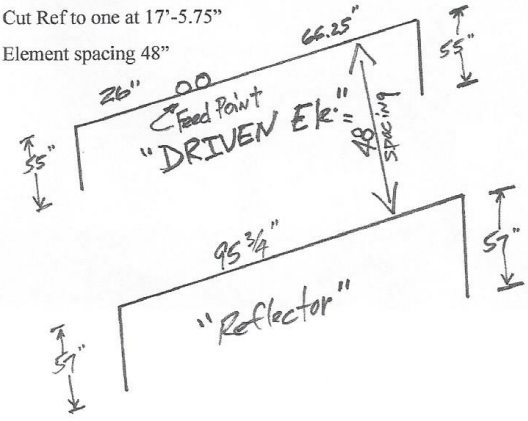
Last year I made an earlier test version of this beam with a PVC backbone. With help from Joel Hallas W1ZR (ARRL fame) I was encouraged to experiment further. Imagine a beam that's 50% reduced in length, easy to build, easily tunes 28-29 MHz and has high gain (about 7 dBi when mounted 35 ft high!). Since this would be a temporary antenna, I used whatever wood scraps I had on hand for the backbone. I used green insulated aluminum clothesline wire (9 ga.) for the elements and added a PVC pipe spacer on the bottom element ends to maintain the 4-foot spacing. Wire connections were hard wired twisted together. Antenna is also economical in cost- a winner in my book! Beam also loads 24 MHz and should work well with a tuner. You can even add a rotor to your design.

Notes

1. Connect coax shield to 66.25" side of element
2. Cut DE to one at 81" and one at 121.25"
3. Cut Ref to one at 17'-5.75"
4. Element spacing 48"

NOT TO SCALE

Measurements not critical but get as close as you can.



Measurements taken 12/7/18 w/beam at 28 feet:

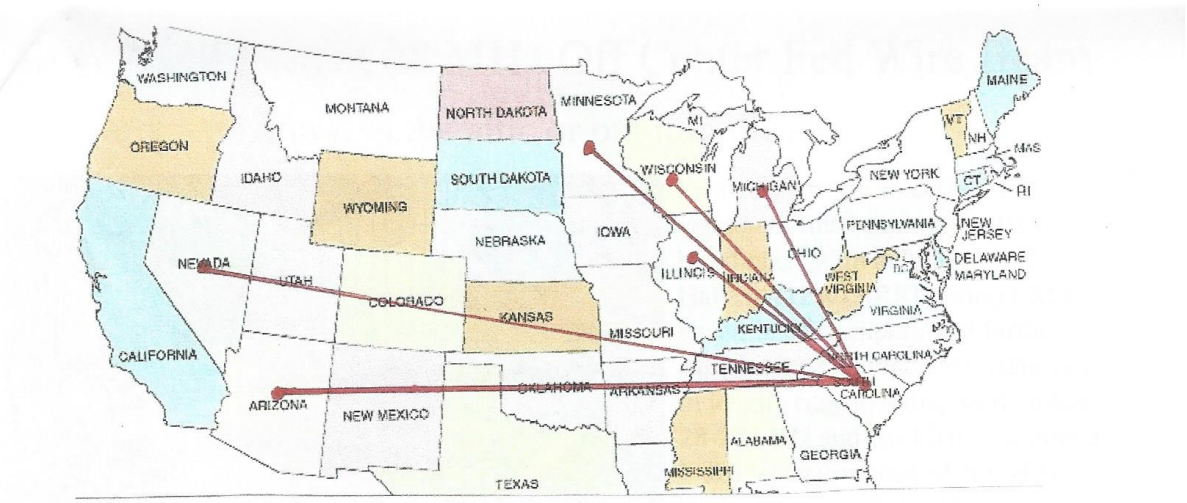
28.000 SWR 1.6
R=79 X=11

28.300 SWR 1.4
R=66 X=15

28.500 SWR 1.3
R=64 X=10

29.000 SWR 1.4
R=65 X=14

(note: PVC spacers at bottom. 1.5" PVC pipe cut down the middle)



How did the beam perform? Over the ARRL 10m Contest (Dec.8/9, 2018) weekend I sat glued to the radio during the poorest radio conditions I have ever experienced. With the beam pointed NW at about 30 feet up in a big pine tree I made 19 contacts with 6 different states on Dec. 8 over a 2-hour period. This was the only opening I experienced on 10m over the weekend. I was pleased the antenna pointed the way it should thanks to longer element lengths provided by Joel Hallas W1ZR. I'll play with this antenna a bit longer then start design of a more permanent and rigid antenna using copper tubing. Should you decide to build this antenna, please let me hear from you.

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