

## HAM Builders: easy Antenna spreaders

[This article is directed to old-fashion (nearly extinct) Antenna "builders".]

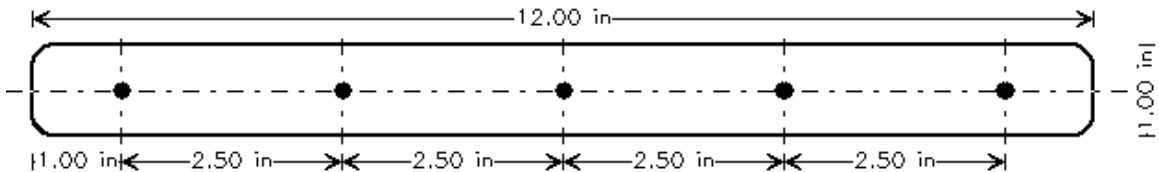
Do you want to build a multi-element fan dipole or Inverted "V"? Wonder where to get those spreader insulators that WILL last for years? Easy answer is "MAKE THEM"!

You will need a ruler, table saw, and drill. Yes, it's that simple.

Go to your local hardware store and buy outdoor "plastic" decking planks - 12"x36"x1". Slice off a 1/2" piece and take it to your kitchen microwave oven. Place upon a paper plate and nuke it for >1 minute. Use either a thermometer (or the back of your hand) to ascertain if the material has increased from its normal room temperature right after the microwave stops cooking.

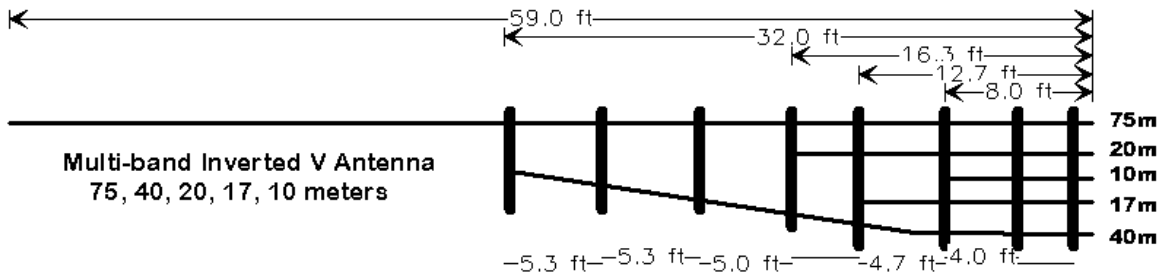
If it is HOT or warm to the touch the material is NO good for RF use. Try a different decking type of planking source hardware store and nuke again. If the piece remains at or near room temperature to the touch it is good for antenna use.

Slice off as many spreaders as you want – make the spreader depth near 1/2" to reduce wind loading and retain strength. I use a metal de-burring tool that is fast and easy to use to remove the rough plastic edges from the "new" spreaders. I use a drill press to place a hole every 1.5"-4" leaving at least 1" of material on either end of the spreader. Hole spacing and size is dependent to your antenna needs, remember hole diameters larger than 1/4" reduce spreader material and strength to a 1" crosscut. If you need more wires holes you can rip the plank the long way and cut to your required size(s). I created a drill press jig (metal plate) to insure all my holes are equally spaced to each spreader. I usually make 10-20 spreaders of various sizes [2, 3, 4, 5 or more holes each]. Jigs reduce my setup time between antenna projects and provide consistency to my antennas. Have fun – be creative!



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My favorite all around wire antenna is a multi-element/band "Inverted V". Easy, cheap to build but one, and one of the most effective antennas a HF HAM can install. It is a very forgiving; I've bent my 75m legs 90° to make-fit to my property lot.





As you can see my home-made spreaders did not greatly increase the ice loading to my inverted V week. Actually the wires look to be more loaded that the spreaders.