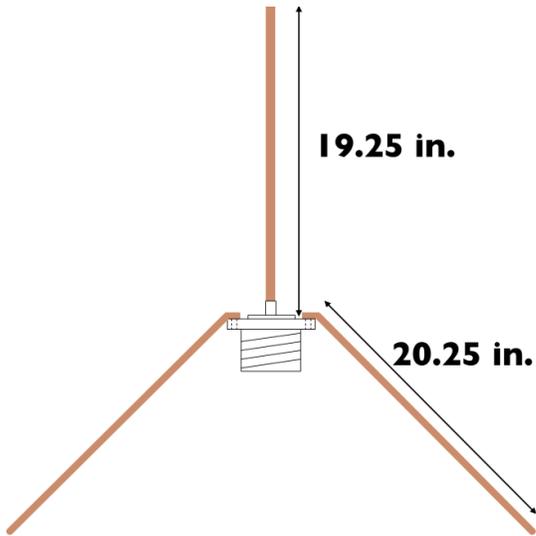
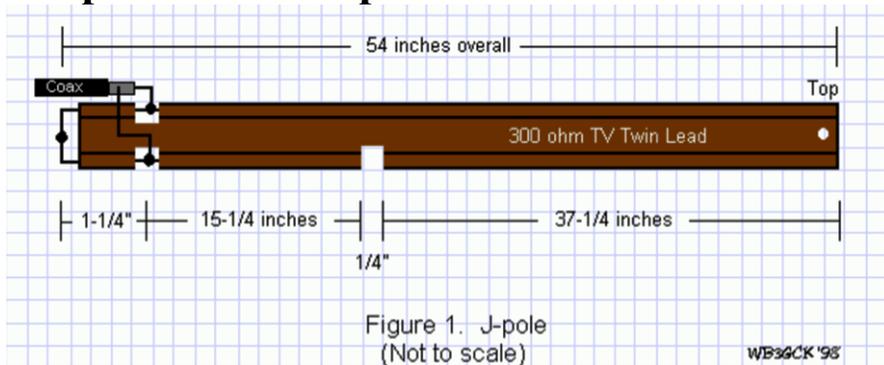


## Simple Antenna Ideas

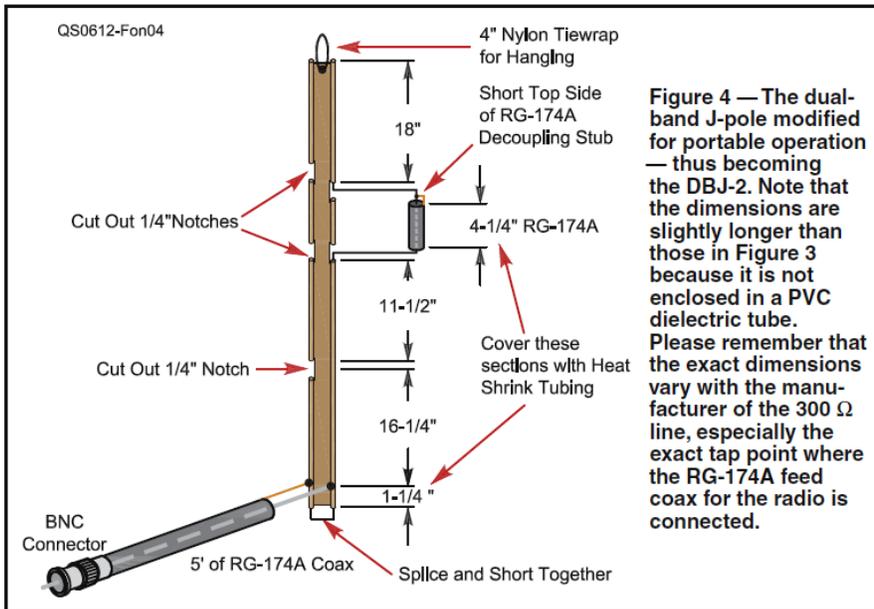
### Simple 2-Meter Quarter Wave Ground Plane



### Simple 2-meter Tape J-Pole



## Dual-band 2-meter/440 Tape J-Pole



### VERY Tough to Beat a Dipole on HF (without adding additional half waves or parasitic elements)!

EXAMPLE: For 20 Meter Dipole - -  $468 \text{ divided by } 14.175 = 33.02$  feet or 16.5 feet (16' 6") per side.

The above dipole should work fine across the 20 meter band. But we can do better:

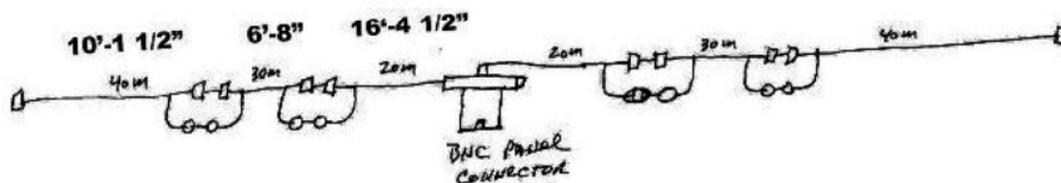
**Famous One-Cut Dipole – Step 1.** Use the formula with the old constant ( $468/\text{freq Mhz} = \text{total length in feet}$ ) and add 6 inches or so (easier to shorten than lengthen an antenna). Our new antenna length is 34 feet or 17 feet per side. **Write the new length down!**

**Step 2.** Haul the antenna up to its final location and find the

frequency (F) of the **lowest SWR**. Our lowest SWR frequency was 1.2 to 1 at 13.985MHz **Record the lowest swr frequency!** Step 3. Multiply length from step 1 (L) times frequency of lowest SWR (F) in step 2 to get new constant. Step 1 Length x Step 2 Frequency = **new constant** In our example: 34 feet X 13.985 = 475.5. Step 4. Now use the new "constant" obtained from step 3 above in the formula rather than the 468 to get new length in total feet. 475.5 divided by 14.175 = 33.5' (33' 6") total length or 16' 9" per side. Haul your dipole back up to its final position and start operating!

**The Iditarod Multi-Band Dipole** – Is actually several dipoles individually selectable by connections.

Requires no tuner, but must be lowered to change bands. This is pretty easy if the antenna is erected as a sloper (lower the high end, make the connections and pull high end back up).



**EARCHI End Fed Antenna** - - Probably the best-known end-fed antenna kit series was built by the Emergency Amateur Radio Club or Hawaii or EARCHI. They designed and sold kits for single band end feds (no tuner required) and a multi band end fed (40 thru 6 meters) which required a tuner. Several of us have made these easy-to-build antennas.



# Fabulous Fan Dipole

