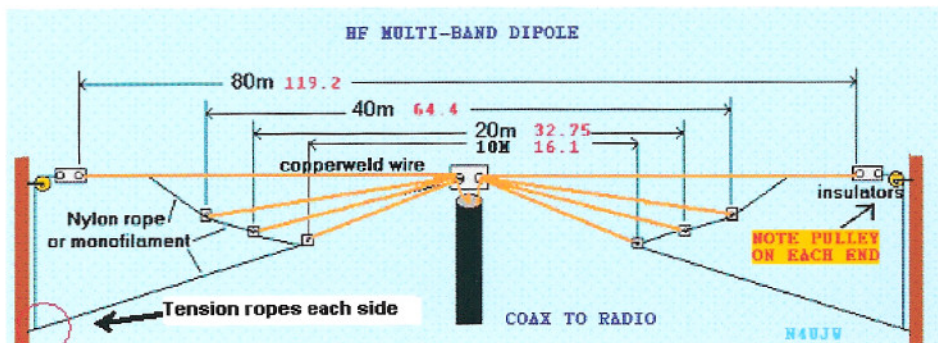


# BUILD THIS MULTIBAND FAN DIPOLE FOR ALL BAND HF ANTENNA EXCITEMENT



Tension rope is not tied to pulley rope in picture. It is tied near location of pulley rope down on supports within easy reach. It is tied last after final SWR adjustment and the antenna is in it's final position.

## Suggested total lengths:

- 80 meters - 120 feet
- 40 meters - 65 to 66 feet
- 20 meters - 34 feet
- 10 meters - 17 feet

These lengths are not exact. Some tuning may be required. Use the standard formula  $468 / \text{freq mhz}$  for total feet for each band (freq) of interest. Adjust each length longer or shorter as needed.

Here is a fairly simple and easy to build multi band horizontal fan type dipole that can be constructed for all band operation from 160 meters up thru 6 meters or even higher.

In the drawing above, it is shown for just four bands, 80 thru 10. One separate dipole for each band needed. However you can build it to suit your own preferences by using the standard formula for a dipole:  $468 / \text{freq mhz} = \text{total length for each band}$ . Use the formula for your desired center frequency.

Each dipole length above in **RED** is in feet and tenths of a foot for the center of the General portion of each band and is derived from the above formula and should be cut longer for swr trimming. USE #12 TO #14 GAUGE COPPERWELD WIRE IF POSSIBLE or use what you have on hand. The top most dipole must support the entire weight of the antenna.

Start with your lowest (in frequency) band of operation as the main (top) support for the entire setup. Cut it per the formula but add a couple of feet on each end for tuning. Try to use a wire size that will support the other dipoles.

MTR	FREQUENCY	MHZ.
23cm	1270	1240--1300
33cm	920	902.0--928.0
70cm	446	420.000--450.000
1.25	223	222.000--225.000
2	146	144.000--148.000
6	52.5	50.000--54.000
10	28.345	28.300--29.700
12	24.96	24.930--24.990
15	21.38	21.300--21.450
17	18.14	18.110--18.168
20	14.3	14.225--14.350
30	10.125	10.100--10.150
40	7.26	7.225--7.300
80	3.92	3.850--4.000
160	1.9	1.800--2.000