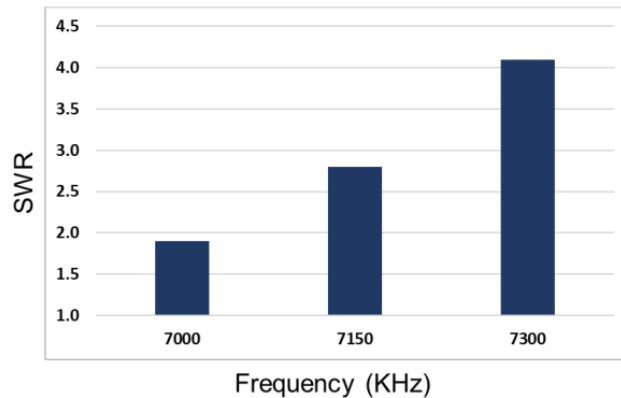


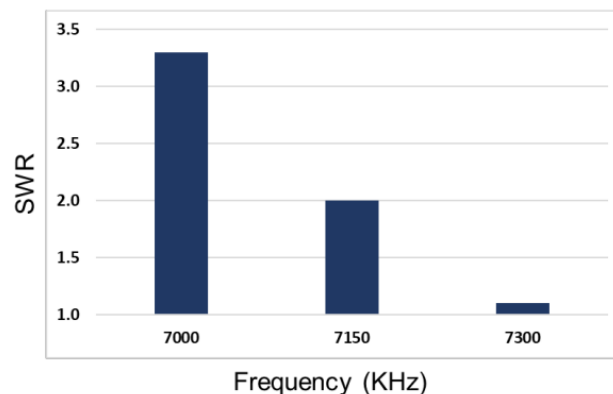
My 40 / 20 Meter Fan Dipole antenna was designed to be able to be used over a wide frequency range and installed either by suspending from a tree or by mounting on a mast. I use this simple tuning procedure to quickly and easily adjust the resonant frequency for each dipole.

Start with the 40m dipole (black dipole) and then do the 20m dipole (red dipole). Measure and notate the Standing Wave Ratio (SWR) of the dipole at the lowest, middle, and highest frequencies in the band on which you intend to transmit. When the SWR is 2.0 or less on all three measurements, it is satisfactory, and you can stop the tuning procedure. One of three following situations will occur:

- 1) The values for SWR **increase** on all measurements of the lowest, middle, and highest frequencies. In this case, the resonant frequency is too low, which means the antenna is too long.



- 2) The values for SWR **decrease** on all measurements of the lowest, middle, and highest frequencies. In this case, the resonant frequency is too high, which means the antenna is too short.



- 3) The SWR value for the middle frequency is lower than the SWR values for the lowest and highest frequencies. In this case, the resonant frequency is inside your band. If the SWR value for the lowest frequency is lower than the one for the highest frequency, then the antenna is slightly too long. Conversely, if the SWR value for the highest frequency is lower than the one for the lowest frequency, then the antenna is slightly too short.

