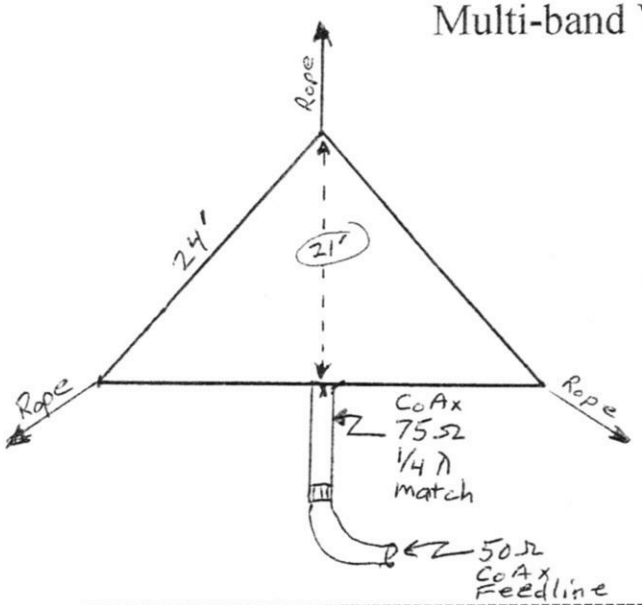
Orange Park Amateur Radio Club - - 10/19/06 Dick K2LJZ

Multi-band Wire Loops (Full Wave)



20 & 10 Meter Loop - Don W4AWP

1) Loop length (in feet) = 1005 / frequency (in kHz)

2) 20 meter = 71 feet Total Length (24 ft. per side)

3) Works as 2 wavelength antenna on 10 meters

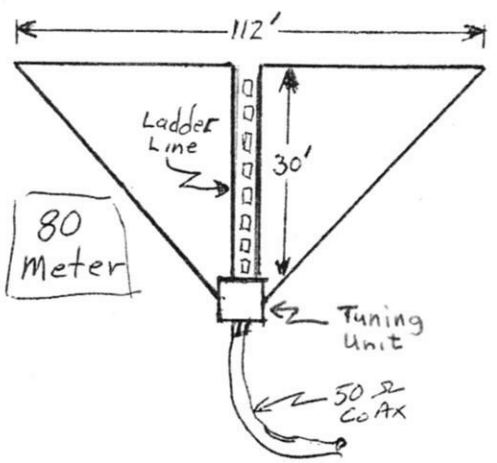
4) 75 ohm RG-11 matching section (1/4 wavelength)

5) Fine tuned by raising and lowering the bottom section so that it drops the middle feed point.

Loop Advantages:
1) Constructed with low cost wire and CoAx
2) No tower required
3) Stealth - - Hard to see in Restricted Neighborhoods
4) Gain of 2 to 4 db over a dipole
5) Low noise due to magnetic field pickup
6) Low angle of radiation (22 degrees) Good for DX
7) Harmonic bands work OK, like 20 and 10 M
8) Can be close to ground due to magnetic radiation. (10 feet or higher)

Loop Disadvantages: 1) Multiband operation require a tuner, but a commercial version "SuperLoop 80" claims 80 to 10 meter band operation.

Commercial All Band Loop Antenna



Radio Works - Model "Super Loop 80" 80 to 10 meters

Model "Super Loop 40" 40 to 10 meters
The 40 M version is 1/2 size of 80 M.

They Claim: 1) Gain 4db

2) Low angle radiation

3) Dedicated Tuning Unit

4) Loop & Bi-Square Modes

Ref: QST Oct. '84 p. 24-26
Ham Radio Oct. '79 p. 24-29