

Birdhouse Antenna

Like many of you, I live in a deed-restricted community. The HOA says “No exterior antennas, aerials, satellite dishes, or other apparatus shall be permitted, placed, allowed or maintained upon any lot, which transmit television, radio, satellite or other signals of any kind.” Clandestine operation is the only option.

I have a VHF antenna in the attic of my one story home, along with a octopus of flex ducting. I needed an antenna for HF, so I had to get creative. The back part of my lot is 50 feet wide and is adjacent to a pipeline easement. No tall trees to support a dipole or to hide wires. The best alternative I could come up with was three 10-foot pieces of three inch PVC pipe to support craft birdhouses that go with our bird feeders.



I planned a center-fed fan dipole, resonant on 10, 15, and 20 meters. Weather and rigging problems intervened, so I scaled the project back to just a 20 meter dipole.

I threaded 14 gauge copper wire inside of a braided polypropylene rope. The rope supports the copper wire as well as providing some camouflage as to the true purpose of the installation. I passed a wire/rope assembly from each of the corner posts to the center post. I also threaded a length of coax through the rope and ran that assembly from the center post to the house. The wire is not visible to the HOA, and the performance is good. I have had good contacts in Belize and Panama.

In dry weather, I measured SWR at 1:1 at 14.250 mHz. During the heaviest of the recent rains the antenna analyzer showed 48 ohms and 1:1 SWR, but at 13.770 mHz. The SWR at 14.250 mHz was 2.3:1. When the rain stopped and the ropes dried, SWR returned to normal.

Stay tuned, I am going to build a 40 meter dipole. I will have to drop ends of the antenna down into the end posts. I'll let you know how it works.

73,

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