

## Monoband Yagi

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Radio Shack. I mounted the antenna at the top of the pole, with the sections uniformly telescoped to yield a total height of 30 feet. I obtained additional strength by telescoping the sections to this shorter length. A short mast cut from 1-1/4" aluminum tubing and mounted above the rotor brought the total antenna height to 33 feet. If you use a pole, as I did, don't attempt to extend the pole to its maximum height. Very little will be gained in radiation angle, but the structure will be weakened considerably.

I attached the pole to my eaves at a height of 10 feet using the mounting bracket. I then guyed the pole near the top using Kevlar™ line sheathed in Dacron™ (available from Radio Works). This produces a strong, inconspicuous guying system.

### Performance Tests

In three months I have logged 107 countries with the new antenna, most of those on SSB and most with signal reports of 5-9 or 5-9 plus. "Big Signal, AB4GX" has commonly been heard. The power used varied between 50 and 1200 watts output, although the antenna should handle full legal power with no problems. The front-to-back-ratio agrees with the computer analysis, and I've used the existence of the null off the sides to advantage. When working East (Europe and Africa) or West (South Pacific or Asia), I can effectively null the strong

South and Central American stations adjacent to my Florida QTH.

This is the first time in 27 years of hamming that I have used a yagi, and the first occurrences of QSOs interrupted by hams telling me that there must be "something wrong with your equipment because you are pinning my S-Meter and blocking my receiver." This sometimes while barefoot, and while I have ended QSOs in the interest of peace and harmony, I have also developed a new respect for the gain of this antenna. I have found I can work almost anyone I hear, most often on the first call, and power management coupled with

operating courtesy are much more visible requirements. You cannot have a "Big Signal" without also having a "Big Responsibility." And all this on a push-up pole, and with shortened elements! Enjoy, and please let me

### Parts List

QTY	Item
2	1/2" x 12" hardwood dowel
4	1" x 6.5" hardwood dowel
1	1-1/4" x 3' aluminum mast pipe
4	1/2" I.D. x 1' clear plastic tubing
4	1/2" diameter x 5' aluminum tubing
4	1/2" diameter x 16.5" aluminum tubing
4	3/8" diameter x 4' aluminum tubing (cut for proper length, as shown in Figure 6.)
8	3/8" diameter x 5" aluminum rod
2	1-1/4" I.D. U-bolts for mast
8	plumbing clamps for 1/2" pipe
12	pipe clamps for 1/2" pipe
1	1" x 3" x 24" pine
1	1" x 3" x 22" pine
1	1" x 2" x 4' pine
1	1" x 3" x 6' pine
1	1' x 1' x 1/4" plywood (cut up for the 4 cleats)
	#12 wire
	#16 enameled wire
1	1:1 balun - Radio Works #Y1-4K
	Kevlar support wire - Radio Works
12	self-tapping screws
12	eyelets
1	Fiberglas kit (optional) - K-Mart or equivalent

know your experiences if you construct this "residential yagi." **73**

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