antenna topics

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The *MT* Radio-Convention-Special:

This Handy Vertical Antenna Needs no Ground!

How many of you radio buffs out there are planning to attend the big *Monitoring Times* Radio Convention to be held in Knoxville, Tennessee, October 5, 6 and 7? It's going to be an event "not to miss" as they say, and I am certainly planning on being there. With its meetings, demonstrations, lectures and all else that will be going on, this convention will be the high point of the year for radio monitoring enthusiasts.

You can bet that the airwaves around Knoxville will be filled with useful information about the convention, too. There will be a ham "talk-in-and-information station" which hams can access and everyone can tune in to on their monitors to find out such useful information as how to get to the convention center, when convention busses leave and from where, and various other bits of knowledge that will make your stay easier and more profitable.

But how to make sure that you can monitor all the local activity from your hotel or motel room? The *MT* Convention-Special Antenna is just the ticket to supplement your rubber duck antenna on the 2-meter, since you can't mount an antenna on the roof of your hotel or motel. It should perform on the 450 MHz band, too, but at a reduced efficiency.

You can hang this antenna up or take it down just about anywhere, almost instantly. Storage is easy, too. Just coil it into a small roll and put it into your briefcase. For the hams among us, it works fine for transmitting as well. (At hand-held transceiver power levels, its SWR isn't something to write home about, but since the feedline is short, this is no problem.)

Sound like something you can use? Read on.

Let's Build the *MT* Radio-Convention-Special

1. Cut a piece of TV twinlead to 54-1/4 inches in length.
2. Measure 15-3/4 inches from one end on one conductor of the twinlead. Cut that one twinlead conductor at that point, and also at 1/2 inch farther along the twinlead (at 16-1/4 inches).

Remove the 1/2 inch chunk of cable which this creates and discard it. This leaves the twinlead with one wire 54-1/4 inches long, one conductor shortened to 15-3/4 inches and another piece beyond the 1/2 inch gap which is 38 inches as shown in Figure 1.

You will connect the coax cable to the 54-1/4 inch piece and to the 15-3/4 inch piece, but the 38 inch length will remain unused.

3. Trim away 1/4 to 3/8 inch of insulation from the end of both the 54-1/4 inch and the 15-3/4 inch lengths as shown in Figure 1.
4. Prepare a 10 to 15 foot length of 50-ohm coaxial cable by exposing about 1/4 to 3/8 of the center conductor, and arranging the braided outer conductor as shown in Figure 1. Solder the inner conductor to the end of the 54-1/4 inch wire, and the shield to the end of the 15-3/4 inch length as shown in Figure 1.

Cover these joints with black plastic tape, making sure that they are insulated from one another.

5. Make sure that your coax has the proper plug to fit your rig attached to its other end.
6. The antenna is now ready to hang and attach to your scanner or transceiver.

Some operating tips:

Tie a nylon or other strong string to the tip of the antenna and toss the string over a convenient "hanger." Pull the antenna up and tie the string to a stable tie-point.

Don't hang the antenna near large metal objects, as this will reduce its effectiveness. If you are in a building with lots of metal which can shield the signal, try hanging the antenna so that it can "look out" of a window. Of course, the antenna can be used outdoors by hanging it from a friendly tree limb, fence post, etc., but stay well away from power lines.

AND SO, if you need a nifty little portable easy-to-mount and take-down dirt-cheap two-meter and 450 MHz antenna, build the *Monitoring Times* Convention-Special, and tune in on the action.

RADIO RIDDLES

Last Month: Last month I reported a surprising study dealing with "man as a base-fed antenna." I then pondered the question of what parts of the human body might serve as substitutes for various components of a
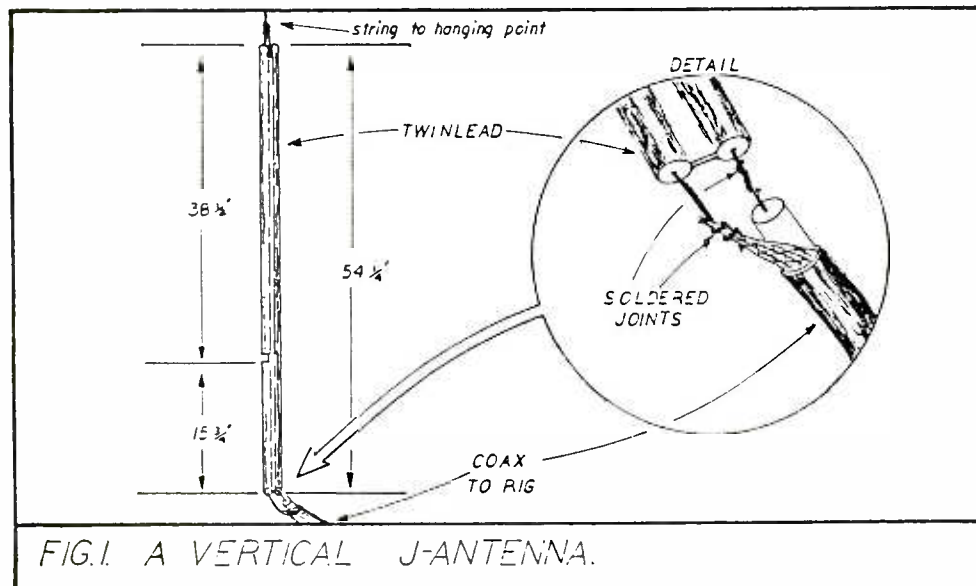
FIG.I. A VERTICAL J-ANTENNA.