

CB to 10

-- part VI: antenna suggestions

Tom M. Murphy K5UKH
Rt. 1, Box 301A
Ethel MS 39067

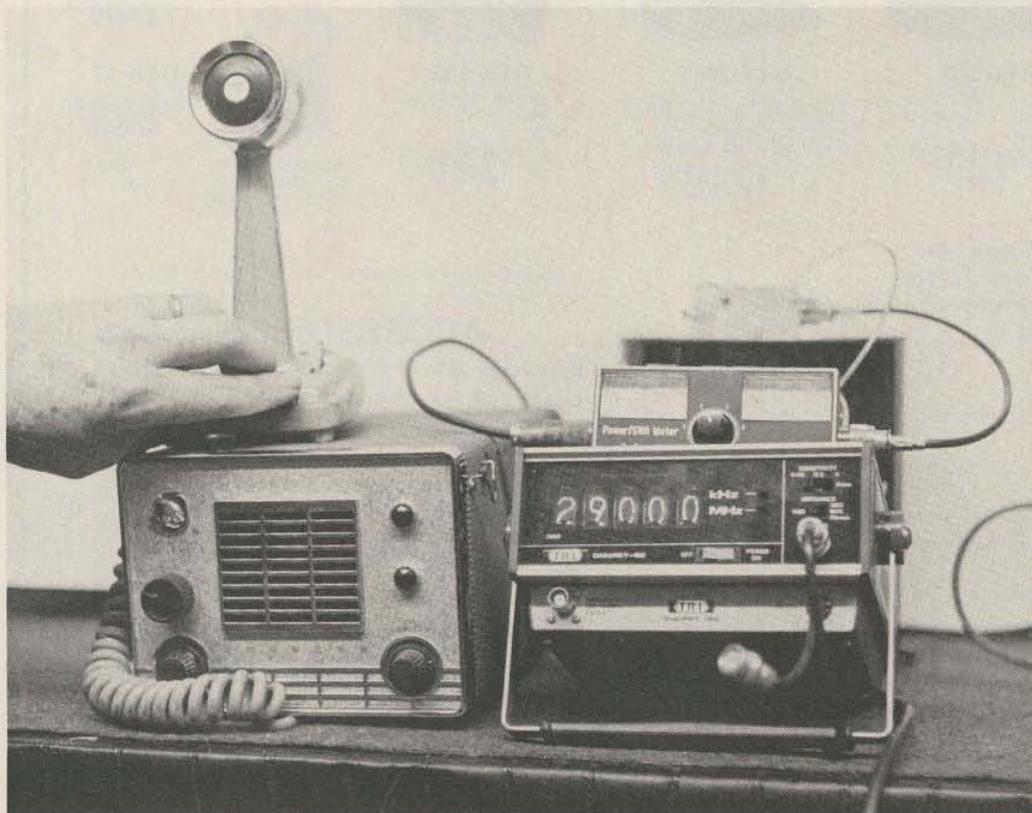
One of the better things to happen to amateur radio lately is the availability

of lots and lots of low cost communications equipment — new and used Citizen's Band transceivers. These range from old tube types to modern solid state units.

Want to be cheap? Just do as I did — find an old tube

radio, get it into operating shape, and convert it to 10 meters. I was given a Johnson Messenger 1 tube radio by a "good buddy" who was all hung up on his latest 40-channel play-pretty. Well, sort of "given" ... it cost me

Photos by James Clegg



10 Watts at 29,000 MHz.

three beers and a quick radio repair job. A couple of tubes later (which I scrounged), I had it going great on CB channel 11. The radio was putting out 10 Watts AM into a wattmeter and dummy load.

That's one of the reasons most of the tube types were (and still are) so popular. They could be "tweaked" for more output very easily. In this area, 29.000 MHz is coming into use for channel 1, since there is really no established band plan for this equipment. Let the CW boys use 28 to 28.5, of course; SSB has 28.5 to 29; and let the AM activity start at 29.000 through 29.290. That gives everyone a lot of room.

The 2 meter band is getting more and more crowded. Onward and upward is the cry, but the cry I hear right now is my pocketbook. So, let's fall back and regroup and have a whole bunch of fun in the process. The Johnson has a 5-channel capacity, a built-in ac power supply, and puts out 10 Watts with no problems. The conversion was about as simple as sticking a couple of crystals in. You just have to tweak on the rf stages, both receive and transmit, for optimum performance at 29 instead of 27 MHz.

Checking with a number of good buddies in the area reveals a huge quantity of tube type radios. These are just ideal for conversion to 10 meters. I have a solid state rig converted to 10 in my truck, and it works like a champ. Having solid state for mobile and a cheap tube set for base use is the way to go. The people I want to talk to can now get me on 10 meters instead of 2. Because it's sparsely populated, there's no problem like on 2. It was hard to work SSB on HF without the 2 meter radio sounding off. So, this way, if DX is around, I can get a call or give one to alert the "good guys."

What about antennas? Well, there is a lot of "scrap"

lying around. This scrap is good stuff, and it can usually be obtained for the asking. I've seen many antennas whose only problems were that the fellows using them couldn't make them work, shorted PL-259, cut coax too short, etc. The latter may be just fine for this use because that's what you have to do to go up in frequency, of course — generally cut off about 2 inches for 29 MHz.

The antennas for mobile use are of many types, ranging from cheapos to the expensive, high quality items. With base-loaded coils, I just snip a couple of inches off the whip, rather than worrying about getting into the coil. Then there are the center-loaded types; again, take a couple inches off. On my truck I use a 4-foot, fiberglass, top-loaded antenna (Radio Shack, new \$9.95 with \$4.95 mirror mount), which I got for no cost when one of the fellows was getting the swr down and trimmed it off too short. It started going up on him, and that was it; he had to scrap it and get a new antenna. That was fine with me; it's going in my direction anyhow. There's a rubber tip over the end; remove it, and you will see the end of a wire. Carefully take your pocket-knife, fish the wire out, and trim. Of course, all the trimming is done while using the 10 meter radio in conjunction with an swr meter.

Then there's the full length "whip," 102 inches long, plus a 4-inch spring and ball mount. If you like it "whipping" around, trim a couple and get talking. As you go down the street, you will come to know the height of tree branches above the street.

Seriously, there's a world of CB antennas out there just for the seeking, so put the old ham spirit to work and scrounge! Base station antennas are equally as easy to convert. Just a little trimming is all it takes. They range from the cheapies that have no gain (actually a loss com-

pared to dipole reference), to quarter wave, to the big, long ones, more than 19 feet, that have several dB of gain. Again, I have a preference as to type. I just don't like the big, long ones; they're hard to handle and sure do catch the wind. However, if it's cheap, the price is sure hard to beat, so that could be the way to go. I use a compact antenna called the "Starduster." I believe it sells new for about \$45.00. I spent a couple of hours helping with an antenna erection and inquired, "What are you going to do with that old antenna?" I got it free or, at least, as a reward for my help.

The advantage of a compact antenna is that it can be easily mounted on top of the HF or whatever beam without a lot of trouble, whereas the long ones would be just about impossible. Of course, the trimming takes place closer to the ground. I just put the antenna on a 20-foot mast to make adjustments, and it changes very little when I finally put it way up there.

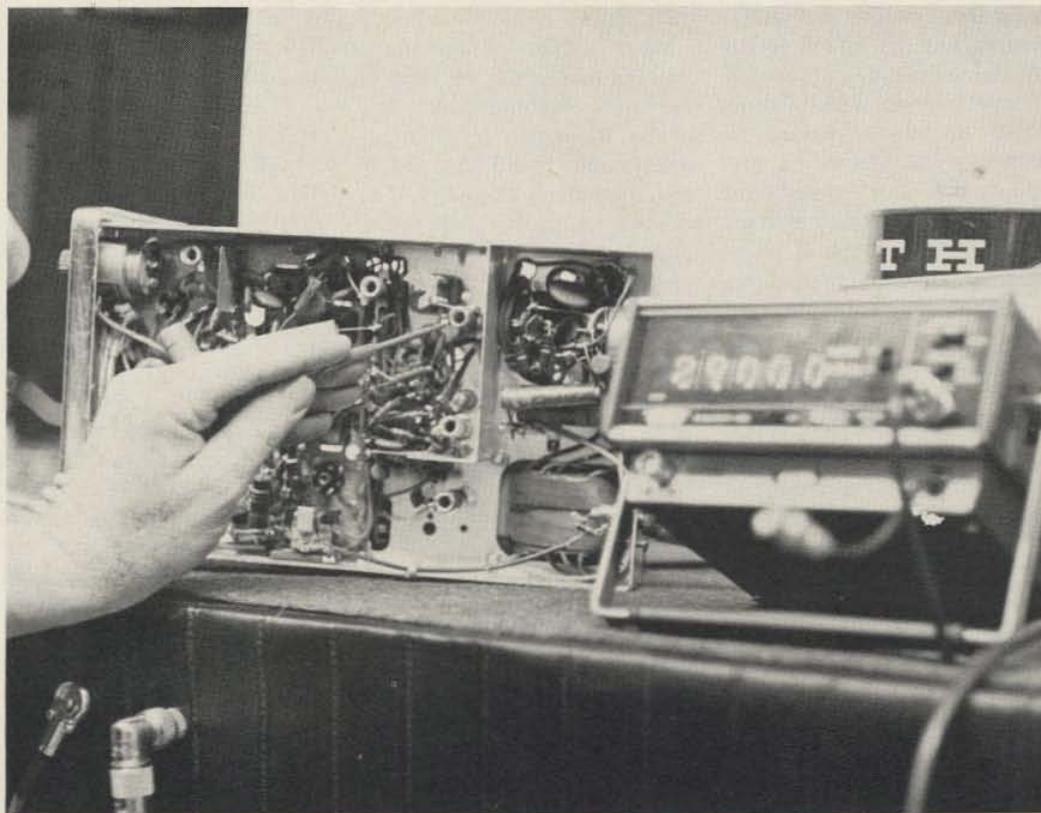
Beam antennas? Well,

there are uses, of course. Say there's one specific direction you want; you could convert and side mount the beam. The average CB beams are just too big and unwieldy to be practical for our use, unless they're on top of a tower, and the chances are you already have a good HF beam. I have a TH-6DXX, and 4 working elements on 10 meters, which are enough for me. If it is difficult to make contact on the vertical polarized ground plane, then we just switch to horizontal on the existing HF beam. Also, the ground plane works very well in the omnidirectional pattern, to catch calls from mobiles that may be in any direction, and, of course, band openings. With the ground plane, I can hear stations that I would otherwise miss if I was using the beam and did not have it turned in their direction. The ground plane is up 85 feet, and the distances worked are amazing — base to base, and base to mobile. If I want to talk to my good buddy 60 miles away, I just ring his number (channel 1, 29.000 MHz), and

away we go.

There are all sorts of goodies to be found. I honestly believe that those fellows must buy PL-259s by the bushel. Just scrounge, and you can come up with all sorts of radios, antennas, swr meters, coax, plugs, connectors, microphones, power supplies, external speakers, coax switches, and a whole raft of stuff.

I'm looking forward to conversions of HTs to 10 meters. They sure can do everything a 2 meter unit can (using direct frequencies), and they're a whole bunch cheaper. It should be lots of fun for hidden transmitter hunts, and, when the band opens, I think it would be a real kick to talk from here to California on an HT! SSB CB radios have come down a lot in price for the 23-channel models, but are still fairly high. I believe they'll come down some more. How about a conversion to 29 MHz for 23 channels of AM, with switching to drop it to the 28.5 MHz region for SSB? It's sure going to be fun. So, start scrounging! ■



Heavy-duty rf section.