

Following up WB6NOA's August operating guide to the new 60 meter band, WA6CAX offers these tips for operating mobile on 5 MHz.

60 Meter Mobile on a Budget

BY WILLIAM ALBER,* WA6CAX

Wow, the new 60 meter band is great! Now how to go mobile? You could just set your screwdriver antenna to tune it (if you have one), or you could buy a single-band whip at the local ham store. Wanna bet? Sorry, Charlie, no 60 meter whips available yet. I know, I'll build one! Ah, but where to begin? That question was answered at the local monthly ham swap meet.

I bought a center-loaded 40 meter mobile antenna for eight bucks (photo 1), took it home, and removed the shrink covering below the coil. Next I measured the coil (10.5 inches, photo 2) and decided that adding 65% more coil would bring the antenna down to 5 MHz. By carefully winding new magnet wire of the same size around the form to add 6.5 inches more coil, then running it in a 2-inch-spaced spiral to the mount (photo 3), 5 MHz *should* be the new resonant frequency. Wrong. My MFJ-269 SWR analyzer says 5.9 MHz. Lesson learned: *Always* put more wire on than you think you need; you can always remove coil to raise the frequency.

Now to remove all the carefully wound wire and add more. I put the antenna back on the car and checked the MFJ analyzer. Yikes! Only down to 5.65 MHz! By now, running low on wire, I opted to splice on to the coil again and add another 2 inches. This time the resonant frequency was just below the lowest frequency channel. This was more like it.

I removed a few turns at a time until the resonant frequency was right in the middle of the five-channel band at 5.360 MHz. VSWR at the band edges was better than 1.6 to 1 as measured on the analyzer (photo 4). Next step was to cover the bottom half of the antenna with heat-shrinkable vinyl, and put it on the air (photo 5). Running approximately 12 watts (the LOW power setting on my rig), I made several daytime contacts in the 200 mile range. Later that evening contacts of 800 to 1200 miles were made with good signal reports—60 meter mobile for a total parts cost of about \$11!



Photo 1—A 40 meter mobile whip, an \$8 find at the swap meet.

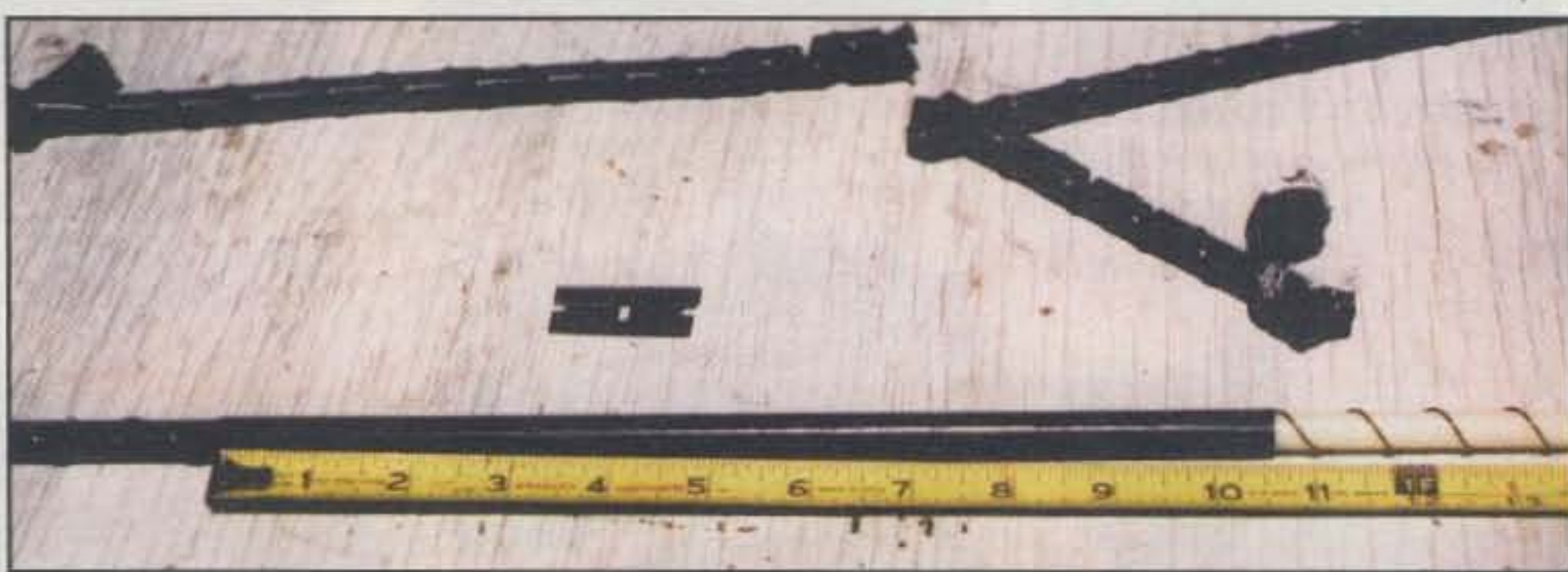


Photo 2—First step, remove coil covering and measure the 40 meter coil.



Photo 3—Here the new coil has been added to bring the resonant frequency from 7 down to 5 MHz. Clear vinyl tape keeps it from unwinding.

Photo 4—The MFJ-269 antenna analyzer shows the SWR of the "new" antenna is better than 1.5 to 1. →



Photo 5—Final step, cover the new coil (and old) with shrinkable vinyl, mount on your vehicle, and you're ready to radiate. →



*c/o CQ magazine