

## A Low-Profile 40m/20m/15m/10m Antenna

The greatest benefit in upgrading to General is the expanded operating privileges on our HF bands using RTTY, data, phone and image modes. Unfortunately, the HF bands require larger antennas, so that could be a disadvantage.

One simple solution is to use an EFHW (End Fed Half Wave) antenna that covers 40-Meters, 20-Meters, 15-Meters and 10-Meters. You could either build own EFHW (which would require home-brewing an RF transformer) or you could order the EFHW antenna kit that the ARRL sells. Visit <https://home.arrl.org/action/Store/Product-Details/productId/133267> for more details.

The EFHW for these bands is an approximate 66-foot long wire with a 49:1 impedance ratio transformer at the feed point to provide a decent 50-ohm match on these four bands. One of the easiest installations is to erect it as an inverted-vee. The apex of the inverted-vee can be relatively low, although the higher it is, the better it will play on 40-Meters and 20-Meters.

Using an existing tree and relatively thin wire will minimize the visual impact to your neighbors. The transformer enclosure is small enough to hardly be noticeable at ground level and the coax to your rig can lay on the ground. You may need to trim the wire for best SWR.

Here's an image of the above installation, with the apex of the inverted-vee at 14 feet.

