

My Top Five Portable Antennas

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1. 9' free standing vertical	2. 17' WRC free standing vertical	3. 17' wire vertical. Requires support.	4. KM4ACK 40-10 EFHW	5. QRPGuys 29' End Fed
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The photo above shows my five primary portable antennas. I use them all in different situations and for different reasons. Below is a discussion of their pros and cons and when and where each one might shine.

Number 1, Nine Foot Free Standing Vertical, with four ten-ft radials and ground spike.

Pros:

1. Free standing, no mast or other support needed
2. Very light weight at just 22.5oz or 1.4lbs.
3. Relatively small at just 18" collapsed as shown.
4. Fits completely inside and/or outside most backpacks
5. As shown, no tuner required for 40, 30, 20, 17 & 15 meters.

Cons:

1. The coil is DIY requiring the tools and ability to make.

2. The whip is just 9ft long so though it performs well, radiation may not be optimal.
3. As shown does not cover 60 or 80m nor frequencies above 15 meters.
4. Somewhat fragile.

Comments: This is one of my first-choice antennas because it performs well and fits easily inside and in the side pockets of my radio pack allowing me to have an all-inclusive, single portable pack. It's 10' radials allow for a pretty small footprint.

Number 2, Wolf River Coils TIA Mini with 24" legs, 17' Chameleon whip and four ten-ft radials

Pros:

1. Free standing, no mast or other support needed.
2. Quick to set up
3. $\frac{1}{4}$ wavelength on 20 meters, excellent performance
4. With multiple collars can be preset to several bands. As shown covers 40-10 meters without a tuner.
5. Reasonably packable

Cons:

1. Relatively heavy and bulky. 61oz or 3.8lbs, minimum collapsed length is 28"
2. Free standing, no mast or other support needed.

Comments: this is my other first-choice antenna. If I don't need the all-inclusive capability of the 9' antenna, this is my choice. It is $\frac{1}{4}$ wavelength on 20 meters and the WRC coil and collars make presetting it up to my favorite bands easy. I have also marked the whip with a magic marker for the bands above 20 meters so it is in effect an "all band" vertical with excellent performance. It has a fairly small footprint thanks to the 10' radials.

Number 3, 17' DIY Wire Vertical

Pros:

1. Light Weight, 8oz or $\frac{1}{2}$ lb.
2. Small and packable.
3. Easy to set up.
4. Excellent performance (same as WRC)
5. Covers 60 through 10m without a tuner.

Cons:

1. Requires a mast or other support.
2. Must be lowered to select bands above 20 meters
3. It's a DIY antenna and must be built by the user.

Comments: This is identical electrically and in performance to the WRC mini above. It has permanent taps on the DIY loading coil for 60, 40, 30 and 20 meters and links in the vertical element for all bands above 20 meters. It's only downside is needing to supply a support since it is made of wire. Other than that, it's small size and light weight make it perfect for carrying inside of my radio pack.

Number 4, KM4ACK 40-10 EFHW, with links for 30 and 17 meters

Pros:

1. Light weight, 5oz as shown.
2. Small and packable.
3. Relatively easy to set up.
4. Excellent performance.
5. Covers 40 through 17m without a tuner.

Cons:

1. Requires a mast or other support.
2. Must be lowered to select the 30 & 17 meter bands
3. It's a DIY antenna from a kit.
4. Requires space for its 65ft length.

Comments: An End Fed Half Wave is an excellent antenna. And this one is no exception. It's light weight and small size make it portable. Its only downside is that it needs either an end support, tree or mast, or center support, usually a mast. I use an inexpensive 20ft fiberglass or carbon fiber fishing pole for either deployment. One needs to consider space as it is about 65' long.

Number 5, QRPGuys 29' End Fed

Pros:

1. Very light weight, 3oz.
2. Very small and packable.
3. Relatively easy to set up.
4. Reasonable performance.
5. Covers all bands with a tuner.
6. Excellent backup antenna.

Cons:

1. Requires a mast or other support.
2. It's a DIY antenna from a kit.
3. Requires space for its 29ft length and 17ft counterpoise.
4. Performance somewhat less than resonant antennas.

Comments: For small size, wide range flexibility, ease of deploying and reasonable performance make it the ultimate backup antenna. I usually set it up as a sloper. I keep it in my radio bag all the time so that if all other antenna options are either not available or appropriate, I can grab this one. Its potential downsides are somewhat reduced performance, need for 29 ft and something to support the far end.

Summary

For my "Parks On The Air" (POTA) activations I almost always use either the Number 1 or Number 2 antennas. And unless I'm really concerned about propagation, I'll probably use Number 1, the 9' foldable bottom loaded one. It is so simple to carry and deploy and is complete. Poke the ground spike in the ground, screw on the coil, fan out the counterpoise wires and unfold and screw on the whip. Done. Add a 25' piece of RG-174 coax and I'm on the air. Seldom does it let me down.

If I'm concerned about propagation, I'll likely use the Number 2 antenna, the Wolf River Coils vertical. It does require an extra antenna bag but otherwise is complete. It sets up almost as simply as the 9' one. It's often hard to decide between the two. Weight and size are the only potential negatives.

The other two antennas generally stay home as they require taking along a portable mast. Number 4, the EFHW also requires more open space due to its length. I do like its fast band changing between 40 and 20 meters. Other than the Number 5, the 29' end fed, all the others require physically going to the antenna to change bands.

Bottom Line? They are all excellent portable antennas and I usually have them all in the car!

Addendum

My opinions about these antennas are based on several factors, one being on-air success (or not) in using them. And that in turn is based on my experience. As of this writing I've logged 1088 combined

POTA activation contacts with them: 229 with Number 1 (9 ft); 446 with Number 2 (WRC); 45 with Number 3 (DIY vert); 278 with Number 4 (KM4ACK or other EFHW); and 90 with Number 5 (29' or 35' EF). None of them have been a disappointment.

Since they all seem to perform acceptably, why the difference in the numbers of logged contacts? That is primarily due to convenience of transport and setup. I go for the verticals most of the time as they are so easy to set up. I can be on the air in 10-15 minutes or less with antennas Number 1 and 2.

The nine-footer wins the toss up often because it, radials, 13" ground mounting spike and 25' of RG-174 coax stores inside or in an outside pocket of my ICOM LC-192 backpack along with my IC-705, external battery, key, mic, logging notepad, red marking cones and everything else I need to do an activation. A one bag deployment! That makes it hard NOT to use!