

The Radio Hotel - Antennas You've Never Heard Of (probably)

By Rick Hiller -- W5RH

We all know the usual suspects when it comes to antennas. Dipoles, verticals, loops, Zepps, Yagi's etc. Even branching out into the semi-esoteric skyhooks you have others such as the G5RV, 4-Square, Bob-Tail Curtain, etc. But, these are just plays on the basic antenna forms with a bit of magic thrown in. Now, have you ever heard of the Herring Bone, the Landstorfer, the Franklin, the Bruce Array, the Discone or the Alford Slot? How about the Ham Radio specific, Hi-Rizer, the Maxcom, the Bilal Isotron, the Sommer or the Hentenna? Now we're getting into some interesting beasts.

People have loaded up folding chairs, bed springs, shopping carts. Even our resident RF Weasel, W5TOM, has loaded up his Ford Explorer (see www.w5tom.com). But I am not talking about just loading up weird stuff. I am talking about legitimate antenna arrays designed for real life RF situations. Designers have been driven to achieve success in getting around problems with size, feed impedance, efficiency, multi-band coverage, gain, f/b, etc. and they have come up with some really weird configurations and solutions. Now, due to space limitations, I cannot go into the attributes of each individual antenna. That is your job. Remember: TRH philosophy is to serve as an introduction to different ideas and topics and for you to use the Internet to dig further. Let me see if I can do just that and give you some hints as to what to research.

The Herring Bone, the Bruce Array, the Franklin and the Sterba Curtin were wire antennas developed many years back for shortwave HF communication and broadcasting. Legacy antenna books tout the benefits and attributes of these antennas and others. The free, downloadable, 1952 Edmund LaPort's [Radio Antenna Engineering](#) is a good place to look for information. (Google "[Radio Antenna Engineering ebook](#)" – it's 2.5 Mb)

When it comes to initialisms, there are plenty of antennas known by them...the DDRR, TTFD, CFA, EH, or the CCD. Even in the Ham Radio quadrant we have a couple -- the EDZ and the LPDA. Many articles have been written about all of these "abbreviated" skyhooks. All are easily Google'd. For Ham specifics, let's start with something fairly well known -- the [Bilal Isotron](#). You've seen the pictures in QST. It kind of looks like a bird cage. You can read an in depth analysis of this strange antenna at the isotronantennas.com web site.

The [Maxcom High Speed Automatic Antenna Matcher](#) is well known as sort of a scam antenna. In short, it is like putting a dummy load at the feed point and running dipole wires out from there. Both QST and 73 magazine gave it a bit of an expose' and certainly exposed its' fallacies. **See QST Nov. 1984 and 73 March 1988.**

A sub-group of Ham antennas in the "severely loaded" category are the Little Giant, Tak-Tenna, The Petlawany Dipole and the Untenna Hi-Rizer. All have either massive coils or they have end loading spirals or radials to assist in resonating the antenna. The Little Giant is **US Patent #2,891,498.** The Petlawany was originally in World Radio, but can be seen at iw5edi.com. The Tak-Tenna is currently in production at tak-tenna.com. The Untenna Hi-Rizer a unique mobile antenna looking similar to a DDRR, but not. Google [Untenna Hi-Rizer](#) and look for the Radioexperimenter.us url in the listing.

I am out of space and didn't get to talk about the Hentenna, the Landstofer element (very interesting!), the Sommer beam, the OWL, the LFA or the OP-DES, but a Google search will show you what they are. There are many other esoteric antennas out there, but the above mentioned ones are the few that I have been intrigued by for many years. Enjoy your hobby. GL ES 73 DE W5RH

Next time.... Diversity – A Deployable Advantage

*The purpose of **The Radio Hotel** is to give you a practical kickstart into exploring the workings of antenna systems. Google the buzz words and find out what they mean. Read up on antenna system theory to see how it all works together. You will be glad you did.*