

## A New Old Antenna

Take a look at figure one. This is the basic W8JK antenna invented by John Kraus, PhD., back in the 1930's, I think. Anyhow, this particular antenna has been featured in every ARRL Antenna manual and early handbook that I own. When I received my General class license at the age of 13, I hoped that somehow I might be able to put up a rotary beam antenna. After a full summer of farm and orchard work, however, the required cash for a beam, rotor and tower just was not there.

In desperation I decided to try this simple antenna. (I really did not expect it to work.) The only wire I had was a copper clad steel wire that was left over after a highway crew blasted a new roadbed out of the hill behind our home. It was only 20 gauge or so, but rather tough, so that's what I used to build my first 8JK. The feedline on that first antenna was some old 300 ohm twinlead a neighbor threw on the dump.

The directions specified using 12 gauge wire and open wire feeders to a transmatch. Well, I had a transmatch, but everything else was pretty much hit or miss.

With the antenna coupled to a 15 watt homebrew CW rig I worked an LU (Argentina) on twenty meters on my first try. Needless to say, I was hooked on the 8JK and over the years have built and used many of them.

The basic antenna of figure one will work from 20 to 10 meters and provide about four dB of gain over a dipole. The antenna is bi-directional and will provide 4 dBd or more on the frequency of design (20 meters). Gain will vary on the other bands but will never be less than 3 dB. The beam width of the 8JK is about 75 degrees, so two of them placed at right angles will pretty much cover the earth.

What is so nice about the 8JK is that it only requires approximately 30 feet to produce a really good signal. The antenna can be installed vertically, too. Install this wire beam at 25 feet or higher for best results. Of the many 8JK antennas I have built, none have ever disappointed me (and I never did use 12 gauge wire).

Basically, the 8JK is two dipole antennas fed out of phase. Spacing is  $1/8$ th wave. Nothing is real critical! If the length falls out to only 30 feet, or stretches to 40 feet, it's okay; the thing will work! Knowing this, you may want to design one to fit into your particular lot; just remember the antenna will work OK on higher bands, but will not function too well at lower frequencies. For 40 meters just double the space and length. Try it; you'll love it!

In fact, why not try your new 8JK on...

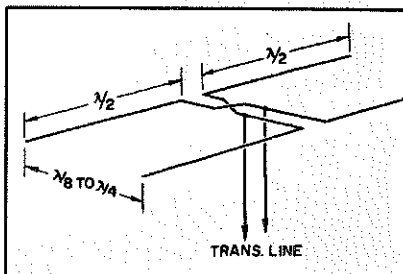


Figure 1 Courtesy ARRL Antenna Handbook

### 15 Meters

Fifteen is perhaps the best all around DX band for the Novice amateur. Lots of DX stations hang out in the Novice band just waiting to give the new DXer the thrill of working them.

The 15 meter band extends from 21000 to 21450 kHz. The band is divided as follows in the USA: 21000 to 21200 is CW only with Novice operation permitted between 21100 to 21200. Extra class may work from 21000 to 21200 CW while General and Advanced are permitted CW in the section from 21025 to 21200. Extra class phone extends from 21200 to 21450, Advanced privileges extend from 21225 to 21450 and Generals are allowed 21300 to 21450 phone.

More and more PACKTOR and AMTOR stations are showing up in the 21060 kHz region daily and lots of nice contacts can be made in the digital modes. The most popular modes on 15 are, of course, SSB and CW.

In addition, some of the Radio Sputnik satellites use 15 meters, enabling a new ham to get into the exciting field of space communications.

A half wave on 15 meters is only 21 feet long, and beams are easily erected even on small lots. Vertical antennas work well on this band.

Normal range will be 1500 plus miles under normal conditions. On a good weekend it is possible to work all continents; during contest weekends working 100 countries is easily achieved even with modest equipment.

15 is a truly superior DX band!

### SSTV

I know you are tired of hearing me yapping about SSTV, but I just have to tell you about a chance for hams and non-hams alike to see what SSTV is all about.

If you own a computer, a new product on the market will allow you to view SSTV pictures for only \$49.95 plus five bucks for shipping!

I recommend you take advantage of this new setup from Absolute Value Systems, 115 Stedman St., Chelmsford, MA 01824-1823. You can phone them at (508) 256-6907.

Dr Kraus, 6/22/94  
Thought you  
might enjoy seeing  
this - a real  
"classic"!  
Regards, Bob Houf  
KD9UX

Let me apologize to all of you who were looking for N3IK/3 from Lehigh Gap State Park on March 20. Even two days later there was still a foot of snow in my backyard. It was impossible to reach the site on the 20th except by cross country skis, since several feet of snow blocked the trails to the proposed operating site.

I still intend to make it, however, and the new date will be May 15th. Again, frequencies will be 3695, 7040, 14040, 21140  $\pm$  10 kHz. I will attempt to be active for most of the day. All contacts will be QSLed.

As before, if you care to join me on an expedition of your own, use the same frequencies and see how many stations you can work; receive an award if you work N3IK/3. Note that if you did set up on the March date, you will still receive the award if you work me in May.

Robert and Kathleen Houf  
12750 Meadow Dr.  
Elm Grove, WI 53122

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or

...surprising how many stations operate during this activity. Many operators make VUCC (100 Grid Squares) during this contest.

N3IK is planning on being on six and two meters SSB, and CW QRP from grid square 11 and/or 01 for the contest, so hope to see you then. Also see N9LAG from grid square EM-57.

### Dayton!

The top amateur convention of the year is, of course, the Dayton hamfest, April 29 through May 1. I hope you make it to this one; you can always count on bargains galore. Look for me at flea market spot 320; mediumwave columnist Joe Eisenberg can be found in spot #2076. Bob Grove and Grove Enterprises will also be there at Booth 514.

See Ya, 73, de Ike, N3IK

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