Does the Carolina Windom Work?

Working DX on 80m is always a challenge from a city lot.

In 1998 I moved to a new QTH which had an oblong shaped yard, long enough to easily fit a full size 80m dipole into. The lot was oriented such that when I ran the dipole along one side, its radiation pattern was pointing NW/SE, which made it perfect for working stateside, but the ends were pointing towards Japan and long path to VK. Despite this, I still managed to work my share of VK and JA stations in contests.

I have always been a big fan of the two CQWW DX contests and have participated in them almost every year for the past 40 years. Working most of the time from Germany, I have always had one common problem – working Asiatic Russia (UA9/0). I have usually easily worked VK, ZL, JA, and a hundred W stations, but UA9/0 was nearly impossible to reach. I would hear them 579, sometimes even louder. I would call and call and get no answer. They would continue to call CQ with no response, but they would not (could not) hear me.

Finally one year in the contest I got the idea to try my 80m dipole as a "T" antenna (a top loaded vertical). I tied both sides of the coax together and fed it through an antenna matchbox. I tied both sides of the 40m dipole together (later in other locations I used whatever other antenna I had available) and connected it to the chassis of the matchbox as a counterpoise. After matching the antenna, I called the UA9/0 and worked him on the first call. In fact I worked several others. My problem was solved.

Each year for many years I would repeat this complex procedure and work with it for about 20 minutes until I had worked a few Asiatic multipliers, then reconnect the antenna as a normal dipole.

Carolina Windom

The theory behind the Carolina Windom makes sense. Forced vertical radiation on part of the coax fills in the nulls off the ends of the dipole. In 1998 I ordered 3 Carolina Windoms:

- Carolina Windom (80m)
- Carolina Windom 160 (160m)
- Carolina Beam (80m, but with hanging ends)

I tested these antennas extensively for two years. I replaced my metal mast with an expensive 40 ft. fiberglass pole, 2" diameter with 5mm (3/16") wall thickness. First I installed the CW-80.

I had great expectations for the CQWW contest. When I worked the contest, I could hear the UA9/0 as always, but as always, I could not work them. I tried the trick with re-configuring into a "T" but it did not work. Perhaps that was due to the extra RF-Chokes in the coax. Between the SSB and CW events, I replaced the CW-80 with the CW-80 Beam, which also had wires hanging vertically down at both ends. No change.

I repeated this the following year, working from a different location, this time using the CW-160. Same results.

By then I was very disappointed. I had spent a lot of money on these antennas and did not experience the claimed performance gain. Oh they worked just fine as a dipole and I worked lots of DX with them, but I could not confirm any additional omni-directional radiation and I did not work any more or any less DX than I usually worked on a normal dipole. After that, I took down all the CW's and returned to using standard dipoles.

By DJ0IP, September 2012

Does the Carolina Windom Work?

At this point I would remind the readers that **antenna height** is a very important factor for working DX on any band. It goes without saying that it is easier to elevate a lightweight antenna to greater heights than a heavy antenna. The Carolina Windom antennas are all very heavy antennas, which makes it difficult, and expensive to install them at decent heights.

Summary

The Carolina Windoms work just like a dipole or normal OCF-dipole. In theory there must be radiation from the top segment of the coax, but in my experience, it was not enough to make a noticeable difference. At the end of the day it simply a good dipole.

Conclusion

Although it works like any other dipole, **[in my opinion]** the Carolina Windom is a waste of money and effort. It is complex, expensive, extremely heavy, and requires a non-metal mast. Non-metal masts sturdy enough to support these unnecessarily heavy antennas are very expensive. A much better solution for the money is to build a lightweight OCF-dipole, and use it with a very high telescoping fiberglass pole. Use lightweight low-loss coax, such as LMR-240 or AIRCEL5 or AIRCEL7. The additional height gained through using lightweight components throughout will bring you a noticeable improvement when working DX. In addition, it can be reconfigured to work as a "T" antenna, in case you need to change the radiation pattern of your antenna for reaching some rare or new DX country.