

The Radio Hotel- K3LR – Tim Duffy

By Rick Hiller -- W5RH

Note: I digress this month from my promised TRH -- Other Antenna Attributes column to talk about something more topical.

So, as you know, my love and passion besides my wife, kids and dogs are antennas and Ham Radio...notice, I put antennas before Ham Radio. Kind of a who came first, chicken and egg, comparison. Anything about antennas, from the theoretical to the empirical, practical, mechanical, etherical. Why they work, how they work, how we use them and their interface to Mother Nature and beyond. I love it all and so do most of you. This past Greater Houston Hamfest, I had the pleasure of hosting and interfacing with Tim Duffy, K3LR, top dog at DX Engineering; but, more importantly, the architect and builder of K3LR Contest station. A most interesting chap.

Saturday, Tim gave 2 presentations. If you missed them, I am sorry, but Avery and Bob's video will be released soon – stay tuned. Personally, I was taken back by the absolute depth of the K3LR technology and antenna system complement. Multiple towers, stacked Yagi's, receive antennas out the gazoo, 4 squares for low bands and the not-so-low bands. An impressive antenna selection fit onto 11 acres in far Western Pennsylvania. However, antennas not just for antennas sake, but antennas, each with a specific purpose. The focus -- 30 MHz and down to 1.8 MHz. Including a selection of receive type antennas that would make the DX Engineering catalog look thin. Loops, flags, low dipoles, four squares, just to name a few. I mean, you can just imagine what they hear – incredible.

So, the pictures of the station and antennas can be seen on the K3LR web site – www.k3lr.com Check it out. A couple of interesting ideas that Tim brought up are these:

1) His 80 meter dipole tuning is done by a Tornado Tuning Coil.

Look at www.seco-systems.net This is a very interesting method to tune/match the system across the extremely wide bandwidth of 80 meters.

2) He uses Phillystran (fiber based) guys and was utilizing the newer “Chinese handcuff” type metallic guy wire ends. (www.phillystran.com) These were a bit problematic as they were giving SWR bumps during the Yagi rotation, as they were connected directly to the tower (metal to metal). A change in the guying system that insulated the metal guy ends from the tower changed this and made the SWR continuous throughout the rotation. Such a small influence, but important to Tim.

The afternoon presentation was about the **Reverse Beacon Network**. Computers and RF working together to give quite a nice picture of the global propagation of our home grown signals. Another Avery and Bob video will be released soon on this talk also.

Epilogue: Unfortunately, I did not get to sit down with Tim one on one to ask him the hundred or so questions that I had about K3LR and its antenna farm. Maybe, someday soon, I will travel west, 265 miles, while visiting my folks in my Eastern PA birthplace, and see for myself. But for now, I can enjoy watching the video of his talk and working K3LR during the contests.

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Side notes: Last month's column – “Antennas Thru the looking Glass”, although a bit out there in its' content and context it was in the “April” issue to boot. I can attest that the facts stated are quite true and real.

Also, the K3LR web site has the complete history (2004 to present) of the Dayton Antenna Forum presentations. Super presentations by some absolutely superior Ham presenters--www.k3lr.com/Dayton/

Next time.... The Other Antenna Attributes

*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.*