

The Radio Hotel – The Amazing Depths of Radio and.....Dedicating yourself to your hobby by Rick W5RH

Consider “Radio” as the 20,000 ft. view of the technology. And, as you get lower and lower in altitude the intricacies of the technology start to appear and expand in all the areas of technology that are required for “Radio” to exist -- antennas, passive and active electronic devices, designing, building, software, etc.

Take an antenna, for instance, (do you think I would choose another technology to talk about? NOT!)in radio, an antenna is not just a piece of wire, or element, it is a piece of conducting metal that is used to promote radiation of RF. Reduce your altitude further and you will understand that an antenna is a transducer, taking a varying voltage at RF frequencies and converting them to electromagnetic radiation and launching this radiation into the natural world. Most Hams stop at this level. (See the “Impedance of Space” – BVARC newsletter page 8, August 2018 -- <http://www.bvarc.org/newsletter/201808.pdf>)

Lower your altitude more and you will be inside the metal being used for the antenna. The metal is made up of atoms, many, many of them. These atoms have electrons and being conductive, they have “free” electrons that are influenced by the varying voltage charge being fed to the antenna wire. However, this might be too low a level for even the most science/physics-oriented Ham. This is certainly not a necessary fact of metal to understand, but it is a nice to know. Down at this level there is some guidance – see ARRL’s book “Antenna Physics: An Introduction” by Robert J. Zavrel, Jr, W7SX. Not sure you want to go any lower, but if so, as Dr. Richard Feynman always said, “it all comes down to quantum physics”.

You can stay up at the 20K or the 10K level and utilize the technology to put together a station to communicate in many of the modes. And that is perfectly fine and acceptable. Or you can continue to delve into the depths of any of the areas of technology that make up ham radio. No one is stopping you, but all of us are very interested in what you find and what you do. We all wish you well. How dedicated you are to the particular technical aspect is the determination of your limits of study or experimentation.

I remember being told of a fellow in the UK. He worked a regular job, but at night he went into his basement and made and painted metal soldiers. For years he did this and when he passed, they found thousands of soldiers arranged in armies of the different time periods i.e. Napoleon, Roman, WW1, etc. Boy, you talk about dedication. (I wonder if he ever took a night off to visit the local pub.) Those English folks were like that. Dedicated to the task and undaunted in their endeavor.

Whatever altitude you choose to cruise at, make the most of it. Challenge yourself and challenge others by asking questions and keeping them informed of your activity. Whether your Q’s come from HF or VHF or phone or CW or FT-8 or JT-64 in an EME QSO and no matter how intense your action, no matter how much you dedicate yourself to the hobby, please, remember to always have fun.

Enjoy your hobby. 73...Rick – W5RH

*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.*