LOREN E THOMPSON N0IA RESPONSE TO WT DOCKET NO. 16-239 December 13, 2018

I have been a Member of the American Radio Relay League for more than 60 years, and associated with ARSFI / WL2K and its predecessor system from the origins circa 1988. I support both of these organizations in the matter of WT Docket No. 16-239.

I have been an active licensed Amateur Radio Operator (i.e. Ham) since 1952, prior to my 15th birthday. Over the previous 12 months learning the Morse Code and some details about electronics at such a young age was just the beginning that would ultimately lead to major studies through two college degrees. In virtually every job application I made in the 1960s - 1980s my having listed that I had a Ham License at such an early age was respectfully noticed. Ham Radio Matters.

In 1952 if I could communicate with someone just across the street without wires it was exiting! Using a two-tube 50-watt transmitter I had built, and Morse Code (CW mode,) my first radio contact was with a ham 200 miles away! Over the next three years I would 'work' stations all over the US and Canada with that 'rig' from my home in Parkersburg, WV. (CW is still my favorite interactive mode.)

How dull that must seem now to my youngest grandson who has had a cell phone since he was 12. At 14 he was producing and editing video files for YouTube. How in the world can Ham Radio provide excitement for youngsters today who can 'chat,' compare ideas, or compete in games with others around the world, often using only a hand-held 'device' - sometimes while traveling in the back seat of the family car?

It is happening!

Within the past few years a new over-the-air activity called 'weak signal digital modes' has been developed. Ham Radio has, once again, caught the attention of younger folks. Using available personal computers and sophisticated digital processing, communication is possible with power levels often less than 10 watts. Digital processing provides detailed separation of wanted signals and undesired noise that could not be done ten years ago. Advancement in these techniques is happening at such a pace as to keep the Ham Radio community on its toes - keeping up with all the improvements! Hams are using meteor showers to increase 'skip' distances; some work with EME (bouncing signals off the moon) all with 1/10th of the power and smaller antennas than previously required. Communications between hams and the International Space Station is routine as is the use of Ham Radio satellites.

It is imperative to know that this is taking place during a five-year period of minimal activity on the sun which is normally the main actor in 'heating up' the ionosphere to support Low and High Frequency terrestrial communications. This particular periodic cycle of the sun is one of the lowest in centuries! The current crop of - hi-tech - hams has stepped to the front in the mandated Advancement of the Art, following predecessors who did the same in advancing use of spark gaps, vacuum tubes, transistors, integrated circuits, and myriads of antenna designs over the past 100 years.

Today, though licensed to use 1,500 watts of power, I now use a commercially-available radio that can produce 100 watts, but I generally use 10-25 watts in this exciting weak signal activity.

At 81, "I'm a kid again!"

All of this advancement could not have taken place had the relevant FCC Rules and Regulations not made it possible. These have been updated from time to time to reflect advancement in communication techniques over the years. Technical-minded hams have not always all been in accord on how to approach these changes. This is normal with any technical endeavor. Much of the current group of nay-Sayers stems from entangled technical pros/cons starting early in this century.

However - there is now a new issue - National Security! As presented, it is simply the Fear Factor we hear so much about these days, fostering divisiveness today even within the honorable hobby of Ham Radio.

Understand this: There is no phase or activity of Ham Radio that could be considered even a slight security risk to the nation. The comparison of world-wide (1) Internet, (2) Social Media, (3) Email, (4) Cable News, etc. to Ham Radio as security risks is as that of an elephant to a flea.

Ham Radio Matters

Loren E "bud" Thompson
N0IA
Lakewood, CO