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Is Your Digital Repeater Ham Friendly?

October 30, 2017 by [Ray Novak](#)

Digital technology continues to flood our repeater frequencies, leaving many questions about standardization. If you are one of those who are holding out, or have been sucked into the bandwagon of the latest craze of the repeater gods, take a few steps back and ask yourself: *do we have a ham friendly repeater?*

Many of the advances over the last 35 years for amateur repeaters have come from the land mobile or commercial radio world. For instance, the use of tone and tone squelch to allow repeater frequencies to be reused across a geographical area that previously was not possible. This was a great advancement and allowed more people to have their “own” repeater. However, I feel that the latest phase in digital has brought in a dangerous trend that few understand, and as a result, there are several fundamental freedoms that ham radio operators are unknowingly giving up!



What is Ham Radio Freedom?

Part 97 gives U.S. ham radio operators a lot of freedom. We can pretty much talk to whomever we want, on whatever band our license allows, to wherever in the world propagation allows. Our most basic license freedom, the technician license, allows operation on any band six meters and above, with a few HF CW privileges.

Through the years, the way we have communicated with friends has advanced. First we communicated within a few miles via simplex. Then it progressed to repeaters for a wider coverage area. Next RF bridges allowed us to communicate hundreds of miles. Then the internet opened up the world! Using IP links, we could communicate around the globe. The RF became digital, allowing for clearer signals, with a standard audio level, to traverse the globe by directing the signal destination based on how you programmed your radio. Following this, we expanded even further with the ability for our voice communications to find someone based on their callsign. Again, with the most basic amateur radio license you have a sense of being part of a global community.



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As history repeats itself, so does the progression of amateur radio communications as land mobile technology crosses over. Since it is used in the commercial world, and we are just a bunch of hams, this must mean the land mobile technologies are better. Or are they? While ham radio is a hobby, and we are a group of experimenters, it is natural to try something new. But do not take somebody's word for it. Investigate what is happening and ask yourself, what am I giving up?

What is in Your Code Plug?

In hamspeak, years ago, we shared a repeater list that everyone would painstakingly program into their radio. With the advent of computers we would email those lists to each other. In more modern radios we email the memory channel program file that we open in our software, make our tweaks, and upload into our radios.

The non-ham friendly repeaters use radio IDs rather than callsigns for radio identification. Additionally, there are features in the code plugs that enable land mobile type functions like Talk Groups, Stun, Kill, Monitor and other functions that make sense for commercial radio use.

Some of the land mobile functions, that are vital in the commercial or public safety world, are used to disable a radio of someone who was either being belligerent on the repeater or issuing false reports. Looking through the eyes of a repeater owner, I could see how these functions could be a helpful and perhaps even a necessary tool. But in the spirit of amateur radio, Part 97 outlines how to handle these situations. While they are not as immediate as we like, they are a lot more amicable. Additionally features like Monitor, which are helpful in a work environment where you have a lone worker situation, really does not have a place in Amateur Radio. I know I would not want a System Operator opening the microphone on my radio without my knowledge.

Why Are These Functions Necessary?

I've covered several terms that are vital for a land mobile environment. You should ask yourself, do these functions belong in amateur radio? With a wonderful hobby, that many call the original social media, don't you wonder if these features are being used to exclude you? Or do you wonder if you are still part of a ham friendly technology?

Who Controls the Keys to the Kingdom?

After a digital repeater seminar at a recent hamfest, it was surprising to hear how one local repeater owner, with almost 70 repeaters, had become the traffic cop of his repeater system. He was instructing users on the importance of his repeater system, and how users should be more respectful of his efforts to provide a repeater network in the case of an emergency. As various members and I discussed some of the nuances of the system owner, one of the users talked about how dead the repeater system had become, the question of user exclusion became the topic of discussion.

I asked did he know how many talk groups were programmed into the system? I pointed out that talk groups in the commercial radio world were wonderful for separating various departments on a conventional, one channel repeater. But as we talked, it seemed this land mobile feature set was actually being used to segregate a ham community into various social cliques. As I have traveled and asked some of these questions, more and more hams are

commenting on how controlling many of these digital systems are becoming, and many hams do not notice they are not in the “cool kids” clique. Is that in the spirit of Ham Radio?

How Does this Impact Amateur Radio?

As Amateur Radio is a hobby, and spectrum is valuable to commercial entities, using commercial technologies that control, limit, and segregate users into social cliques, what message are we sending to those who want our spectrum?

That's just one more factor among many that you should be considering as you implement land mobile radio protocols in your amateur radio communication. Do not forget to always ask yourself; *is it ham friendly?*

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