

These are Reply Comments, in response to the comments filed by the ARRL, the National Association for Amateur Radio, in the Matter of ET Docket 03-104, "INQUIRY REGARDING CARRIER CURRENT SYSTEMS, INCLUDING BROADBAND OVER POWER LINE SYSTEMS."

In the comments filed by the ARRL, the statement is made that "BPL is a Pandora's Box of unprecedented proportions." I am in complete agreement with that statement.

I have been an FCC licensed Amateur Radio (Ham) operator for the past 27 years. Over that period I have used Ham Radio to provide communications for the March of Dimes, the American Cancer Society, the Multiple Sclerosis Society, and other public service organizations. Ham Radio operators have a proud history of providing vital communications services, such as during the 9/11 terrorist attacks on the Pentagon and on the Twin Towers in New York. Liz DiGregorio, Citizen Corps Liaison to the White House, has been quoted as saying about Amateur Radio; "You are there. You are part of that very, very first response when it [an emergency or disaster] happens locally." Ron Castleman, chief operating officer for the Homeland Security Department's Emergency Preparedness and Response Directorate, has been quoted as saying "We're very dependent on ham radio folks.... When something adverse does happen, they're first to keep the information flowing..." When Hams are not providing these emergency or public services, they are busy practicing and refining their communications skills, training other individuals to be skilled Ham Radio operators, and investing their own personal time and money to obtain equipment and develop communications systems so that they are ready when needed. This is in fact one of the purposes of the Amateur Radio Service, as defined in the FCC's Part 97.1(a) "Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communications service, particularly with respect to providing emergency communications."

The ARRL has recently conducted informal surveys in several regions currently testing BPL technology and systems. These surveys clearly show that the amount of interference caused by BPL systems to nearby licensed users of the HF bands will make the bands essentially unusable, thus destroying the ability of Hams to provide the service for which they have been relied upon.

The Commission's Part 15 Rules specify that devices intending to operate under Part 15 shall be designed in such a manner as to avoid interference to licensed services. Section 15.13 states "Manufacturers of these devices shall employ good engineering practices to minimize the risk of harmful interference", yet the surveys performed by the ARRL, as well as rigorous testing done in other countries investigating BPL technologies, indicate that the level of interference predicted is, at best, severe. Because of this, BPL systems must not be allowed to spread to the point where it's too late to undo the spectrum pollution caused by their rapidly expanding deployment, leaving the HF bands in a state of disaster and its users without a medium to communicate.

Part 15 rules have generally been a reasonable basis from which to regulate the use of low power transmitters for a variety of useful applications. These transmitters have largely been single location transmitters, operating on single frequencies or bands. This means that in the majority of cases where such transmitters cause interference, licensed users can at least tolerate the illegal interference and minimize its impact by changing frequencies, or location. BPL systems, *by their intended design*, operate over a broad range of frequencies, creating a very broad spectrum of harmful interference that covers the entire HF range, making the interference unavoidable by changing frequency. Furthermore, *by their intended design*, BPL systems conduct their transmissions into residential power systems, making the illegal interference unavoidable by changing location. Hams, as well as all other licensed users of the HF spectrum, will no longer be able to use this valuable resource to provide the services for which they have been licensed.

Since BPL systems are broad band, wide area transmissions, Part 15 cannot be depended on as a reasonable basis from which to regulate low-power systems with the intent to minimize the effects of harmful interference. The inadequacy of Part 15 to this task is clear, as demonstrated by Power Line Communications tests conducted in Japan, Germany, Finland, Poland, The Netherlands, and Great Britain, and as cited in reference #10 ([http://www.arrl.org/tis/info/HTML/plc/#Amateur Interference Studies](http://www.arrl.org/tis/info/HTML/plc/#Amateur%20Interference%20Studies)) of the ARRL's comments. These studies concluded time after time that the technology was "not suitable" to be allowed access to the HF bands.

I believe that the need for increased communications bandwidth into homes will better be met by "fiber-to-home" technology, which will provide significantly higher data capacities, while eliminating interference-causing radiated emissions. In my opinion, BPL is a misstep in the journey towards improved high-speed broadband access, and a blunder that will have major consequences for all users of the HF spectrum.

Respectfully Submitted;
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