

I am commenting on the FCC Notice of Inquiry Docket 03-104 asking how it should regulate the delivery of broadband services to homes and businesses using electrical wiring to conduct high-speed digital signals.

The regulation of BPL service must give careful consideration to the licensed radio services already using the proposed spectrum. I have been a licensed radio amateur for many years and have seen various intruders upon the radio spectrum. Cable TV which is a closed system and should not radiate signals beyond the cable nonetheless causes interference to my radio operation. Cable signals leak from various places in the system and cause signals of significant levels such that licensed communications cannot exist. The cable signals I hear correspond to the carriers of the cable television channels. They usually appear as one or more "birdies" in the radio receiver. While these are bothersome and disrupt communications I have been able to work around them by adjusting my frequency of operation to an adjacent frequency.

The situation with "Broadband over Power Line" is much more complicated. The BPL technology uses a wide spectrum signal that will impart a broadband hash across many megahertz of spectrum. In the BPL case the licensed service being interfered with (in this case Amateur Radio) cannot move its frequency slightly to move to an adjacent frequency. The broadband signal is everywhere. Problems like this have already been reported in Europe and Japan when trials were run. The broadband nature of the BPL signal results in no coexistence with other licensed users such as Amateur Radio.

The FCC has promised to protect licensed users of the spectrum. Please consider the following with respect to BPL and Amateur Radio.

- Amateur radio is an important resource for Home Land Security. In the event of a terrorist attack, official communications resources will be occupied with emergency communications. In these cases Amateur Radio steps in with trained operators and available systems to augment official communications. Amateur Radio has been an important partner in Civil Defense for many years.
- Interest in technical careers has been sparked by early interest in Amateur Radio. BPL is a killer to Amateur Radio since much of the spectrum will no longer be useable, there will be nothing to grab the interest.
- The present FCC Part 15 limits for this technology already can result in substantial interference potential to amateur frequencies. We really must be very careful and not allow more of it.

I urge the FCC to consider that BPL is different from point-source emitters. Access BPL systems are not local in nature. They are expected to occupy entire communities. BPL systems do not create "birdies" on specific frequencies. They create radiated emissions at the FCC limits on entire swaths of spectrum.

Thank you for your consideration,

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