

*Broadband over Power Line* ("Access BPL") feeds broadband digital signals onto power lines using high-frequency RF from 2 to 80 MHz -- right on top of 80 meters, 40 meters, 20 meters and every other popular amateur radio band all the way up to 6 meters. It is not just the amateur radio operators that are risk but also short-wave listeners, civil, military and governmental agencies. Although this technology is already allowed, the industry wants the limits to be relaxed -- with greater interference potential to amateur radio operation.

These BPL signals could transform HF from a quiet haven that amateur radio operators enjoy to a noisy industry wasteland, changing radio operations forever. It's already hard enough to maintain a regular net schedules, hear weak DX signals, or copy a maritime amateur radio operators in distress. Imagine trying to do that through several S-units or more of broadband garbage. Imagine not even being able to escape this interference through mobile operation (power lines are everywhere!).

BPL technology already has been deployed in some European countries, and amateurs there have experienced interference from the systems. Japan--responding in part to concerns expressed by its amateur community--decided last year not to adopt the technology because of its interference potential.

Studies appended to the Amateur Radio Relay League's (ARRL) comments to FCC Docket 03-104 suggests received signal levels of BPL broadband noise at typical amateur stations would be anywhere from 33.7 dB to 65.4 dB higher than typical ambient noise levels in the worst-case situations. "BPL cannot be deployed using amateur allocations in the MF, HF and VHF bands without severely high interference potential," the ARRL reiterated.

In announcing its BPL initiative earlier this year, members of the FCC could barely contain their enthusiasm for the technology. However, the FCC had acceded to the utility industry by citing potential interference to and from unlicensed power company PLC power-grid control systems in turning down the ARRL petition for a 136 kHz allocation. The ARRL had asked that hams be permitted to transmit on 136 kHz at less than 2 W effective isotropic radiated power (EIRP); the FCC had proposed 1 W EIRP.

The same utility industry, together with BPL manufacturers, is apparently contending now that at HF and VHF, where the power lines are better antennas than they are at LF, that BPL can co-exist with amateur stations while using more than 10,000 watts EIRP. Both arguments cannot be valid

Electric utility companies would operate many, if not most, BPL systems. ARRL pointed out that some power companies have demonstrated a less-than-stellar record of cooperation in resolving complaints of power line noise to hams. "It is fair to say that power line interference to Amateur Radio has been a substantial regulatory burden to the FCC," the ARRL said. "It is a very substantial problem now for the Amateur Service, without the addition of BPL to the mix."

Although attention has been given to the potential interference with the amateur radio frequencies, civil, military and governmental frequencies are also at risk. Recent natural and man made disasters have relied on the amateur radio community to provide reliable communications in support civil and governmental agencies. By approving the use of BPL systems the FCC is not in compliance with it's own strategic goal for Homeland Security. The following excerpt is from the FCC's website on it's commitment to strengthening the Nation's communications infrastructure.

## **Homeland Security**

**The FCC's strategic goal for Homeland Security is to provide leadership in evaluating and strengthening the Nation's communications infrastructure, in ensuring rapid restoration of that infrastructure in the event of disruption, and in ensuring that essential public health and safety personnel have effective communications services available to them in emergency situations.**

### **Description**

**In the aftermath of the September 11, 2001, terrorist attacks, all Americans were reminded of the importance of reliable, easily available, and interoperable communications systems – both for emergency personnel responding to a tragedy and individuals checking on friends and family. Much of what the FCC does either directly or indirectly affects the national security or emergency preparedness telecommunications activities of the public and private sectors.**

### **Objectives**

**To fully and effectively carry out its role in promoting homeland security, network protection, interoperability, redundancy, and reliability, the FCC has established the following objectives:**

- **Evaluate and strengthen measures for protecting the Nation's communications infrastructure.**
- **Facilitate rapid restoration of the U.S. communications infrastructure and facilities after disruption by a threat or attack.**
- **Develop policies that promote access to effective communications services by public safety, public health, and other emergency and defense personnel in emergency situations.**

### **Action Plan**

**On July 10, 2003, the Commission announced its Homeland Security Action Plan. The Plan defines the Commission's homeland security goals as well as the approach it will take to achieve these goals. The Plan relies heavily on partnerships with other government entities, industry, and citizen groups.**

It appears to me that by approving Docket 03-104 and allowing BPL systems to operate over the existing electric utility power lines, thereby causing interference and limiting effective communications, the FCC is in direct conflict with it's own Homeland Security objectives and action plan. In particular the following objectives:

- **Evaluate and strengthen measures for protecting the Nation's communications infrastructure.**
- **Develop policies that promote access to effective communications services by public safety, public health, and other emergency and defense personnel in emergency situations.**

In the FCC's on words "**The Plan relies heavily on partnerships with other government entities, industry, and citizen groups.**" The amateur radio community is surely one of the aforementioned citizen groups. Certainly allowing interference to not only amateur radio frequencies but also civil, military and governmental frequencies does not support this plan.

I support the ARRL's position on Docket 03-104 and strongly urge the FCC to consider the implication and impact of BPL systems on ability for the amateur radio community to help the FCC meet it's Homeland Security objectives.

Sincerely,

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