

## THE AMERICAN RADIO RELAY LEAGUE INC



The American Radio Relay League Inc is a noncommercial association of radio amateurs, organized for the promotion of interest in Amateur Radio communication and experimentation, for the establishment of networks to provide communication in the event of disasters or other emergencies, for the advancement of the radio art and of the public welfare, for the representation of the radio amateur in legislative matters, and for the maintenance of fraternalism and a high standard of conduct.

ARRL is an incorporated association without capital stock chartered under the laws of the State of Connecticut, and is an exempt organization under Section 501(c)(3) of the Internal Revenue Code of 1986. Its affairs are governed by a Board of Directors, whose voting members are elected every three years by the general membership. The officers are elected or appointed by the directors. The League is noncommercial, and no one who could gain financially from the shaping of its affairs is eligible for membership on its Board.

"Of, by, and for the radio amateur," the ARRL numbers within its ranks the vast majority of active amateurs in the nation and has a proud history of achievement as the standard-bearer in amateur affairs.

A *bona fide* interest in Amateur Radio is the only essential qualification of membership; an Amateur Radio license is not a prerequisite, although full voting membership is granted only to licensed amateurs in the US.

Membership inquiries and general correspondence should be addressed to the administrative headquarters; see pages 14 and 15 for detailed contact information.

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## "IT SEEMS TO US..."

### A Busy Month on the BPL Front

On October 14, 2004 the FCC adopted a Report and Order containing new rules for Broadband over Power Lines (BPL). BPL, a method of providing digital telecommunication services via electric power lines, is a source of concern to radio amateurs because of its significant potential to interfere with radio reception. One year later, October was a busy month on the BPL front once again.

On October 3, PPL Corporation—an electric power company headquartered in Allentown, Pennsylvania—announced that it was ending its residential BPL market trial. While there were unresolved interference issues at the test sites, PPL said it was economics rather than interference that led to its decision to pull the plug. PPL said that only 300 customers would be affected by the termination. Compare that to the following quote from an article in the September 12, 2005 issue of *Network World*: "PPL Broadband has trials underway in five areas in Pennsylvania's Lehigh Valley, passing about 20,000 homes, says Al Richenbacher, chief network architect for the Internet access provider." If those figures—in both cases supplied by PPL itself—are accurate, then BPL had a market penetration of just 1.5%. It's no wonder PPL was ready to cut its losses.

These figures remind us that BPL proponents often speak in terms of "homes passed" but then will decline to say how many of them are paying customers. A reporter will then quote some unnamed "industry analyst" who will provide an "estimate" that is likely to be grossly exaggerated.

Just two days after the PPL announcement, the BPL media circus train returned to a favorite stop—Manassas, Virginia—for a grand announcement (complete with a shuttle bus for reporters from the National Press Club in nearby Washington, DC) claiming the first citywide deployment of BPL. The announcement came two years after the much-ballyhooed award of a franchise to Prospect Street Broadband, which was quietly terminated and rebid just six months later. Communication Technologies, Inc (COMTek), a telecommunications and information systems technology company based in Chantilly, Virginia, won the franchise in July 2004. By October of that year, COMTek news releases were touting Manassas as "the most successful BPL deployment in the nation" and claiming that BPL would "be available to every home and business in the City by first quarter 2005."

Unfortunately for all concerned, COMTek and the City of Manassas have been less successful in dealing with interference than in generating media hype. Amateurs have been documenting interference from the Manassas BPL installation since the Prospect Street Broadband days. For more than a year the local amateurs worked patiently with the city-owned utility and COMTek, calling their attention to sites of serious interference. According to the local amateurs, whatever steps were taken to address the interference were unsuccessful. The most that could be achieved was a temporary reduction in interference by notching of certain bands, but after a time the notch would disappear and severe interference would return. Sometimes the notches could not even be activated temporarily, apparently because of control failure on the

part of Main.net, the BPL hardware supplier.

The October 5 media event was the last straw. The local amateurs brought their complaint to the FCC, and on October 13 the ARRL filed a supportive complaint citing the unhappy history of the Manassas BPL deployment.

Coincidentally, October 13 was also the day the FCC announced that United Telecom Council (UTC) would serve as the Access BPL database manager mandated by the new rules. We have no quarrel with the selection of UTC, but we were disappointed to learn that UTC intends inappropriate limits on access to what is *required by the FCC rules* to be a publicly accessible database. Their Web site, [www.bpldatabase.org](http://www.bpldatabase.org), asks for a ZIP code and then only dispenses information for that ZIP code. UTC apparently assumes that one only needs access to the database if one is encountering interference and wants to check to see if a BPL system might be the culprit. That is an erroneous assumption. The ARRL filed a protest with the FCC the very next day, noting among other things that UTC's implementation renders the advance notice requirement meaningless and blocks the achievement of the objectives for advance notice identified by the National Telecommunications and Information Administration (NTIA)—namely, to permit prior consultation between radio operators and BPL system operators to prevent interference.

The following week the ARRL filed a comprehensive Petition for Further Rule Making to distinguish the more benign BPL technologies from the BPL systems that have overwhelming interference potential. Citing extensive experience with a variety of BPL technologies, the ARRL petition urges that three elements be added to the BPL rules previously adopted:

- All Access BPL systems would be prohibited from utilizing Amateur Radio allocations (except the new 5-MHz channels) in their system architecture;
- All Access BPL systems would be prohibited from using HF frequencies (1.8 to 30 MHz) on medium voltage power lines; and
- Signal decay from Access BPL systems will be extrapolated using a 20 dB/decade factor rather than the inapplicable 40 dB/decade factor presently in the rules.

Motorola, Current Technologies and IBEAC have demonstrated that BPL can operate within these constraints. On the other hand, if BPL is widely implemented using systems that operate up to the existing FCC emission limits, one need only look at Manassas to see that pervasive interference is inevitable. With the adoption of these additional provisions, the likelihood of harmful interference to Amateur Radio and most other HF radio services will drop to the point where whatever interference occurs can be dealt with on a case-by-case basis.

Under former Chairman Michael Powell the FCC failed to provide adequate protection to the radio services that utilize the unique natural resource of the HF spectrum. It is not too late for the FCC, now under the leadership of Chairman Kevin Martin, to repair the damage.—David Sumner, K1ZZ **QST**