BPL Update

Bob Witte KØNR
Technical Coordinator
ARRL Colorado Section
bob@k0nr.com
Tel. 719 488-0859
21 April 2006

You've probably heard about Broadband over Power Line, commonly known as BPL. This technology uses an electric utility's power lines to deliver broadband Internet to its customers. Sounds pretty good until you understand how many of these systems cause interference to the ham bands. This is an update on what is happening around the nation and in Colorado concerning BPL.

First, the good news. We have formed an amateur radio BPL team in Colorado to monitor the situation and deal with any interference issues. Here's more good news: we have not heard of any BPL deployments in Colorado. Some utilities have looked at the technology but so far none of them have deployed it. If you hear of a BPL deployment in the state, please contact me at the email address or telephone number shown above.

BPL Deployments - Nationwide

Here are some recent developments across the US concerning BPL and ham radio:

City of Manassas (Virginia) and COMTek continue to deny that BPL interference is occurring, presenting flawed measurements from a third party. ARRL continues to call on the FCC to shut down this BPL system. The local ham community is doing an excellent job of documenting the interference.

BPL interference continues in Briarcliff Manor, New York. The ARRL sent a letter that takes both BPL operator Ambient Corporation and the FCC to task, documenting continued interference on Amateur Radio frequencies.

Cinergy Corp's BPL deployment in Cincinnati, Ohio, using Current Technologies equipment, has proceeded without major interference problems. This is good news as it indicates that not all BPL deployments are a problem to ham radio.

A BPL field trial in Cottonwood, Arizona, that drew complaints from Amateur Radio operators from 2004 until earlier this year apparently has shut down for good. The small system, which Mountain Telecommunications Inc (MTI) operated under FCC Part 5 Experimental license WD2XMB, is now silent.

The Southern Maryland Electric Cooperative (SMECO) has ended a limited broadband over power line (BPL) pilot project, concluding that the technology is not yet ready for prime time in its service area.

Avista Utilities announced this week that it's re-evaluating its plans to deploy a broadband over power line (BPL) project in Northern Idaho. The company, which serves some 330,000 electrical power customers in three western states, said it and a BPL vendor had "mutually agreed" to end contract negotiations for the test deployment.

The latest FCC statistics on the status of high-speed Internet services indicate a minuscule market share for broadband over power line (BPL). [FCC Wireline Bureau report, "High-Speed Services for Internet Access: Status as of June 30, 2005,"] Fundamentally, BPL is failing in the marketplace.

Technology Developments

It is important to note that several BPL equipment vendors are having success with avoiding interference to ham radio frequencies. The ARRL has correctly taken the position that the amateur radio community is not opposed to BPL, but is opposed to BPL systems that cause interference on the amateur bands. These technical developments are encouraging:

A demonstration at ARRL Headquarters of DS2 BPL equipment suggests the manufacturer is working to minimize--if not altogether eliminate-- interference from its products on amateur bands. The new DS2 technology is capable of 40 dB notches in the ham bands.

Current Technologies BPL equipment has been deployed successfully in Cincinnati without significant amateur radio interference. Current has avoided putting high-frequency energy on the medium-voltage lines by using low-band VHF (30-50 MHz) instead. Current's system uses Homeplug modems, which avoid all ham bands except 60 meters, to connect to individual customers.

A Motorola "Powerline LV" BPL system has been installed and tested at ARRL Headquarters, operating without interference to ham radio frequencies.

BPL Team

If you hear about a BPL deployment in Colorado, please contact the Colorado BPL Team via Bob Witte bob@k0nr.com, http://www.k0nr.com/bplteam.html

Members of the Colorado BPL team are Bob Witte KØNR, Ron Hranac, NØIVN, Randy Reynard, NQØR, Jim Pierson, N1SZ, and Kit Haskins, KAØWUC.