

BPL (Broadband over Power Lines) was tried out in Japan using part 15 conditions and trials there were abandoned due to the excessive interference.

In the US BPL could be deployed today under part 15, the BPL lobby is seeking exemption from part 15 conditions so they can run more power (and create more interference).

Here in the US the BPL "spin doctors" have done an excellent job and managed to position BPL as a "Nascent technology". In reality the first BPL system was put "on air" in Manchester U.K. in 1997. This was the year before the first European ADSL system. Seven years later the UK has two BPL systems and multiple interference complaints. Finland has shut down their BPL system due to interference problems and BPL has failed to achieve mass deployment in Europe or anywhere else. In reality BPL is a "Sunset technology" and the US market is the last hope.

There are multiple existing proven solutions for broadband including ADSL, cable, MMDS etc. To provide "third wire" alternatives there are a number of truly nascent technologies including a variety of UHF/SHF wireless technologies that would provide better bandwidth and easier installation than BPL. Attaching connections to 11,000 volt cables is not a trivial or cheap exercise and repeaters are needed every 4,000 feet.

The power companies enjoy right of way, an existing infrastructure (locations and power), universal customer base, billing systems etc, and are in an excellent position to deploy technologies such as UHF/SHF wireless that would provide more bandwidth to support the triple play of Internet, phone and TV without the gross radio pollution that BPL would cause.

Many shortwave users seem oblivious to the interference threat from BPL deployment, the two exceptions are the NTIA and the Amateur radio community. The ARRL has gathered a lot of information which can be found here; <http://www.arrl.org/tis/info/HTML/plc/>

The NTIA letter to the FCC shows clear concern about radio interference problems.

Session held on PLC (Power Line Communications) in the Finnish Telecommunication Administration Center (Telehallintokeskus, THK) on May 16 th , 2001.

The Finnish Minister of Transport and Telecommunication, Mr. Olli-Pekka Heinonen, had answered to the question of a Member of Parliament regarding the introduction of PLC in Finland: For the present, because of the technical problems encountered, introduction of PLC technology is not possible.

THK had invited current and possible future users of radio frequencies for a session to discuss the introduction of Power Line Communication PLC.

Participating bodies of this session:

. Telehallintokeskus, THK (Finnish Telecommunication Administration

- Center)
- . Jyväskylän Energia OY (Regional energy network operator)
 - . Sähköenergialiitto r.y. SENER (Association of electrical energy network operators)
 - . Pääesikunta (Headquarters of Finnish Defence Forces)
 - . Ilmailulaitos (Finnish Aviation Administration)
 - . Digita OY (Broadcasting transmitters operator, operating the transmitters of the Finnish Broadcasting Company YLE)
 - . Suomen Radioamatööriliitto SRAL r.y. (Finnish Amateur Radio League)

The energy suppliers expressed their interest in using the frequencies for data traffic. They also expressed that with modern equipment, in their opinion the radiation by PLC on their networks would not be above natural noise.

The representative of the Finnish Defence Forces deems usage of the same frequencies in the air and in power cables without interference impossible.

The representative of the Finnish Aviation Administration expects safety risks if PLC were taken in use.

The representative of the Broadcasting transmitters operator Digita OY expressed that the limits in the German standard NB-30 are too low for the operators of PLC and too high for the current legal users of the frequencies. He assumed that usage of PLC would totally stop home reception of analogue and digital broadcasting transmissions on the HF bands in the normal home.

The President of the Finnish Amateur Radio League deems PLC a threat to all users of radio frequencies, and said that the published results of tests had showed that PLC presents harmful interference to radio frequencies. He expressed that technology can develop further but that the laws of physics do not change.

The common opinion of all the participants of the session was: PLC technology can only be taken in use, when it has been thoroughly proven that PLC does not present harmful interference to HF radio traffic and especially to safety relevant HF radio traffic.

The report of this session (in Finnish language) may be available on the www-site of the Finnish Telecommunication Administration under <http://www.thk.fi/suomi/radio/>.

The name of the Finnish Telecommunication Administration Center THK (Telehallintokeskus) is going to be changed to "viestintävirasto" on September 1 st , 2001. The existing site thk.fi will most probably be maintained for a while. In case of problems accessing this site, please go to the Finnish club, Suomen Radioamatööriliitto SRAL, <http://www.sral.fi>; they have a link to the Administration which will most probably be one of the first to be updated.

This type of interference will have adverse effects here in Florida where emergency communications provided by amateur radio operators is an important part of emergency handling. Hurricanes normally destroy or adversely affect normal means of communications such as

telephone lines, cell phone repeaters and the like. The amateur radio service fills an important void in the aftermath of hurricanes like Andrew.

Thank you.

Carl Herrera

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