

September 24, 2003

Dear Commissioners:

Industry has suggested in their reply comments that the ARRL has campaigned against BPL as a pretext to raise money, radio amateurs have opposed it out of panic, and short wave listeners have lost perspective. I am going to state the obvious.

Amateur radio operators, as the name suggests, are motivated by love of radio, industry by dollar signs. That industry makes such a suggestion says more about themselves than an amateur organization. We hams have banded together in part to be able to counter big buck interests detrimental to our service. Our dues to an organization not for profit do not leave enough reserves for every contingency, so of course it will from time to time request volunteer contributions to cover added expenses, expenses it would not have had if industry had done its homework. The ARRL needed to buy certified test gear, pay someone's travel expenses to BPL field test sites and contact some government officials to tell them the other side of the story.

If industry had really believed BPL to be benign interference, it would have done the studies to prove it. Instead they opted for a heavy PR campaign, with the FCC a target. That smacks of deceit.

Though fraud in all other actions be odious, yet in matters of war it is laudable and glorious, and he who overcomes his enemies by stratagem is as much to be praised as he who overcomes them by force.<sup>1</sup>

*"Your compatriots. Not by force of arms where we matched them; nor by nobility of action and moral dessert, where we excelled them; but by low trickery and animal cunning, in which areas they predominated, one man above all others being a master of lies, deceits, and treachery. The wily serpent Odysseus."*<sup>2</sup>

It is "Not by force of arms where we matched them"--scientific study; "nor by nobility of action and moral dessert, where we excelled them"--amateur radio's shining record of public service vs. internet smut and pedophilia; "but by low trickery and animal cunning, in which areas they predominated, one man above all others being a master of lies, deceits, and treachery." It's a PR campaign designed to get the FCC overly committed too soon without the relevant data from studies being in, or the relative merits of superseding existing radio services with internet BPL interference.

If BPL is not banned outright, it will become entrenched and the

<sup>1</sup>Machiavelli, *The Prince*

<sup>2</sup>Reginald Hill, *Arms and the Women* (New York: Delacorte Press, 1999) pp. 116f.

HF bands an industrial wasteland discouraging new amateur radio operators, and causing existing ones to put their radio operating on a shelf. It may prove difficult if not impossible to undo.

Are industry and HF radio at war with each other? Hasn't amateur radio helped prove to industry the usefulness of shielded coaxial cable and *balanced* parallel transmission lines spaced at a tiny fraction of a wavelength? This stuff is in the standard engineering textbooks I read in college, and neither the physics nor the economics has changed since. It is unacceptable to allow that industry engineers do not know that *unbalanced* widely spaced (in relation to a wavelength) transmission lines will radiate like the dickens. And does industry management have its head in the sand? They must know Japan banned BPL for interference reasons. The story we are getting from industry, to call a spade a spade, is fraud.

As for the FCC acting like a cheerleader to this fraud, that would be laudable if indeed HF radio users were at war with the internet industry. That not being the case, it is odious.

Amateur radio operators have had to demonstrate technical knowledge and expertise in order to be licensed. That makes them less likely to panic over unsubstantiated threats.

For example, although we have willingly complied with FCC guidelines to limit human exposure to rf fields from our transmitters, we as a group have not been unduly concerned with it. For the general population, it is panic city. The local power company was wanting to put in a high voltage transmission line. They had to have a public meeting to reassure the people it was safe. I went to the meeting, but only to get reassurance from the engineers they would clear up any noise on their line that interfered with my radio. I wasn't concerned about human exposure at all. Likewise when a cell tower was planned for our neighborhood, city planning received scores of letters of complaint from the residents worried about human exposure to the rf. Mine was a letter of confidence as I had looked at the equations, the power level, the frequency, the separation distance and concluded all their fears were groundless.

Energy saving light bulbs is a technology in widespread use that radio amateurs did not panic over. They looked and saw that maybe a faulty bulb could cause a problem, but on a whole they were compatible with their radio reception. There was no panic.

How about noise from faulty a.c. transmission lines? We hams contact our power companies, but we do not go on a campaign to bury all their wires underground. And when the utility company does not help and we complain to the FCC, you do not say, "Oh, it's just some more panicky hams." No, you tell the company what you expect.

Our one difficulty is sometimes knowing how to deal with our

neighbors with zero technical knowledge operating part 15 devices that interfere with our reception. You tell us to be more diplomatic. We're trying. But if we really are as susceptible to panic as the prospective BPL industry has made us out, perhaps for the sake of peace, you should impose a somewhat stricter limit on all part 15 emissions.

Looking at BPL as it's proposed and what it would do to radio reception is a legitimate concern. It is the fast internet wannabes who tend to draw unreasonable conclusions in their comments. One comment suggested that you give the radio amateurs different frequencies. But HF and low VHF have unique characteristics not found elsewhere in the spectrum.

Short wave listeners have a standard form of signal report to the stations they hear (from thousands of miles away). SINPO followed by five numbers representing the following categories: S = Strength. I = Interference. N = Noise. P = Interference. O = Overall. SWL'ers keep noise in perspective, if for no other reason than by dint of practice with their submission of signal reports. That industry in its comments suggests that SWL'ers lack perspective on noise shows it either doesn't understand the medium of short wave listening, or has chosen to ignore it. Similar to their suggestion that technically educated hams are merely panicking.

I have held an amateur extra class license for about 30 years-- been a ham for 40--, have a BS in electrical engineering, and holding an FCC First Class Radiotelephone license was chief engineer at an AM radio station the years it was top in its market. My concern about the interference potential of BPL is based on realities not panic.

Sincerely,  
Earl S. Gosnell III