RE: Notice of Inquiry 03-104 Comments
July 3, 2003

Personal Background

Comments to NOI 03-104 are based on the following experience base:
1. RF Communications Systems Engineer for 34 years in corporate America.

2. RF consulting engineer for the last two years in the States of Illinois and Wisconsin, holding professional registration in both states.

3. Holder of the FCC GROL, GMDSS and Second Class Radiotelegraph Licenses, all with the Ship Radar Endorsement.

4. Holder of the Amateur Extra Class license for almost 44 years.

5. Test Center Manager for FCC Commercial Operator's examinations (National Radio Examiners).

Concerns Over BPL

As a Registered Professional Engineer in wireless communications, I am constantly dealing with RF interference and degradation to receiver noise floors. It has been an engineering challenge over my 36 years of professional involvement to "control and minimize" the effects to coverage degradation for land-mobile radio communications systems. Professionally, a great concern exists that techniques will NOT be in place to mitigate access BPL interference with licensed users of the radio spectrum, such as mobile users in the Public Safety and law enforcement arena who may be traveling directly beneath the medium voltage lines. Overhead electrical wiring utilizing access BPL could become a "good" antenna, degrading mobile coverage reliability in these crucial areas of communications. Ever since the 9-11 incident, directives continue to flow from the Commission, APCO, and the Office of Homeland Security to improve our nation's emergency communications infrastructure. Without substantial testing it is felt a severe non-reversible degradation to many services could result.

Mr. Ed Hare, RF Lab Supervisor for the American Radio Relay League, using his computer analyses of interference potential from Access BPL/PLC suggests "a significant increase in noise levels" from such deployed systems.

BPL/PLC technology has been deployed in some European countries. Amateur Radio Operators there have complained about interference to HF communications. Japan --responding in part to concerns expressed by its amateur community--decided last year not to adopt the technology because of its interference potential. These are two major markets to implement this technology. Both have responded negatively to its use based on "real-world" data and testing.

Even the FCC concedes that close proximity of access BPL equipment on utility poles might affect, and be affected by, cable TV and DSL service.

According to information gathered by this writer, tests of BPL are under way in several states, including Alabama, Maryland, Missouri, New York, Ohio, Pennsylvania and Virginia. At this writing no return data has been made available, however, it is hoped the Commission will target and review the test results of these beta-test sites.

Congressional Recommendation

In Joint Res. S.J. Res. 90 and H.J. Res. 199 it states:

WHEREAS, Congress finds that members of the amateur radio service community has provided invaluable emergency communications services following such disasters as Hurricane Hugo, Andrew and Iniki, the Mt. St. Helens eruption, the Loma Prieta earthquake, tornadoes, floods, wild fires and industrial accidents in great number and variety across the Nation.

Now, therefore, be it

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. FINDINGS AND DECLARATIONS OF CONGRESS.

Congress finds and declares that --

(1) radio amateurs are hereby commended for their contributions to technical progress in electronics, and for their emergency radio communications in times of disaster;

(2) the Federal Communications Commission is urged to continue and enhance the development of the amateur radio service as a public benefit by adopting rules and regulations which encourage the use of new technologies within the amateur radio service; and

(3) reasonable accommodation should be made for the effective operation of amateur radio from residences, private vehicles and public areas, and that regulation at all levels of government facilitate and encourage amateur radio operation as a public benefit.

I would like to remind the FCC that even the Congress of the United States recognizes the valuable asset the HF spectrum is as utilized by radio amateurs. Along with that I would like to add a personal comment supporting its importance to the public safety land mobile market. Recently I attended a national consultants' seminar. I was totally amazed to find that several consulting firms are now recommending (in light of the recent 9-11 attack against the United States) that amateur radio be recommended to public safety agencies as an alternate source of vital radio communications during national emergencies through use in the amateur radio RACES program.

It is my professional concern that a hasty deployment of BPL could jeopardize amateur radio emergency communications AND further make life as an engineering consultant a nightmare when trying to solve broadband noise problems at large antenna sites with interference from the very power lines that feed the site.

Concluding Remarks

In summary, it appears two major markets, Japan and Europe have denied deployment of the BPL technology. In the United States there has not been a solid beta-test of the proposed infrastructure that would launch BPL.

In light of our national security at this time in history, I am strongly urging the Federal Communications Commission to be totally cautious in deploying this BPL system without strong test

data that NO interference to current users of vital communications systems such as outlined be incurred.

Even though strong pressures are there to implement this technology our national security especially at the homeland security level should not be compromised.

Some of the commissioners' statements were disappointing, however, I am encouraged to note that in the NOI itself the FCC did point out that licensed services -- including Amateur Radio -- must be protected from harmful interference from BPL.

It is hoped that a cavalier approach to deploying BPL not degrade either or both amateur and professional RF communications systems, especially our public safety infrastructure which is so crucial to first responders in a national disaster.

Thank you for allowing me to enter my comments on this serious issue for the wireless communications industry.

Respectfully submitted,

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