

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of:

Inquiry Regarding Carrier Current Systems,)
including Broadband over Power Line) ET Docket 03-104
Systems)

Reply Comments of the Roadrunners Microwave Group

The Roadrunners Microwave Group (RMG) is an organization of licensed radio amateurs in Texas particularly interested in promoting operation on the amateur bands from 420 MHz up. Many of our members are, however, active on the HF and VHF bands. Much of the coordination we do to establish microwave contacts, takes place on the 144 MHz band.

RMG desires to participate in this Inquiry by submitting these responses to those who have filed comments with the Commission on it.

RMG observes that over a thousand individual amateurs commented. We trust this gives the Commission some idea of the intense concern amateurs have regarding the threat posed by Broadband over Power lines (BPL).

RMG believes that ARRL's comments were particularly well done. They didn't merely talk about potential interference but performed actual analysis. However their analysis concentrated on the HF bands. As CSVHFS pointed out in their comments, interference from BPL is likely extend well above the actual fundamental frequencies used. Since these harmonics will radiate even better than the fundamental, interference from them can be expected to be very serious. Obviously, it is interference in this part of the spectrum which concerns RMG most. We understand that several other organizations have commented on the implications of BPL harmonic radiation at VHF and higher frequencies. RMG believes that analysis, like that performed by ARRL, should be done for the VHF, UHF and microwave bands. Such analysis should then be backed up by extensive testing on all amateur bands and other bands, especially those connected with public safety, including bands used by aviation. RMG observes that none of the organizations favoring BPL have furnished any detailed analyses such as that done by ARRL, much less reported the results of any test regarding potential interference. Some commenting even appear to claim that the benefits of BPL will make up for any "inconveniences" it may cause. Does this mean they know it will cause interference?

RMG finds the comments of Raphael Soifer, W2RS and Bruce Paige, KK5DO, very telling. Both point out that, the distance used for calculating interference from BPL is

much greater than that existing in their situations. Paige says that, the distance from one of his antennas to the power line is only about 10 feet (approx. 3 meters). RMG is certain that shorter distances are more typical of many amateur installations. An assessment of BPL interference at these shorter distances should be available before proceeding with it.

From AMRAD's comments we learn that at least some forms of BPL notch out the amateur HF bands. Obviously, this will have no affect on harmonics. RMG observes that many amateurs employ very weak received signals both over long terrestrial paths as well as for satellite communication and Earth-Moon-Earth (EME) work at VHF, UHF and microwave frequencies. Harmonics from BPL can be expected to render such work impossible. But no such effects have even been mentioned by those proposing to take over the entire radio spectrum. If that will not be the effect of BPL, they haven't addressed it, much less proved it. RMG contends that they must do so before BPL is allowed. If this is not done **BEFORE** it is allowed, once entrenched, there will be no way to get rid of it no matter what it does to radio services.

BPL will be bad enough in any form, but RMG notes statements from some of the organization promoting it, that it will improve as time passes. We wonder what they mean by that. Is it that they expect to later lobby the Commission for higher power and even wider bandwidth - causing even greater interference?

Those promoting BPL claim that it is the least expensive way of bringing broadband to the masses. From their standpoint, this may be correct. But RMG contends that the Commission, when evaluating BPL's economic impact, must consider the cost of rendering a great deal of existing radio equipment, useless. Is BPL the only way of bringing broadband into homes that FCC knows of? Are there better ways to accomplish the desired result, without trashing much of the radio spectrum? RMG believes that the Commission must thoroughly evaluate other approaches before making a decision which it, and all users of the radio spectrum, will regret for years to come.

For these reasons RMG joins ARRL, AMSAT CSVHFS, AMRAD and thousands of individual amateurs, plus many other organizations, in respectfully urging the Commission not to take any steps to allow BPL unless it can be demonstrated that it will have minimal effect on radio communications. We doubt that, when thoroughly evaluated and confirmed by testing, this will be the case.

Respectfully submitted,

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American Radio Relay League (ARRL)

The Radio Amateur Satellite Corp. (AMSAT)

The Central States VHF Society (CSVHFS)

The Amateur Research and Development Organization (AMRAD)