

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 )

**Comments of the Central States VHF Society**

The Central States VHF Society (CSVHFS) submits these additional Comments on the Subject Docket. Several thousand amateurs have commented on this Docket. This should be an indication of the intense interest many have concerning the known facts of induced RF interference across not only allocated HF frequencies but also into VHF, UHF, and microwave allocations from Broadband RF data transmissions over Electrical Power Transmission lines (BPL).

As stated in our earlier reply comments, Raphael Soifer, W2RS and Bruce Paige, KK5DO, noted in their comments that the distance used in calculating interference from BPL is too great for their situations. Paige says that, in his case, the distance is only about 10 feet (approx. 3 meters). CSVHFS believes that this shorter distance is more representative of what many amateurs face. An understanding of BPL interference at these shorter distances should be in hand before proceeding on the Docket. To date we are not aware that such testing results are available to the public sector though we are aware they have been conducted and the results are not encouraging.

As CSVHFS pointed out in our Comments on this Docket, interference from BPL is likely to extend well above the fundamental frequencies under consideration. 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 area of the RF spectrum which concerns CSVHFS most. We understand that several other organizations have commented on the implications of BPL harmonic radiation at VHF and higher frequencies. BPL experiments in Europe have demonstrated the potential for severe

interference to public safety electronics and avionics in rail, highway management, and aircraft communications operating at such frequencies currently under consideration by the Commission?

Some of the organizations favoring BPL have claimed that they will notch out the Amateur Radio Service (ARS) HF allocations or move to other frequencies if a strong HF signal is detected. Obviously, this will not resolve the harmonic challenges. CSVHFS points out, once again, that many amateurs operate with very weak received signals over long terrestrial paths as well as for Earth-Moon- Earth (EME) communications at VHF, UHF and even higher frequencies. Harmonics from BPL are likely to have a devastating effect on such weak signal work.

CSVHFS believes the Commission should insure appropriate interference enforcement procedures and a full range of technical and personnel capabilities are in place to deal with potential interference complaints prior to wide spread BPL deployment. Not only should analyses be done on all public safety electronic systems, DoD test and evaluation range management and control systems, USG PNT systems (e.g. GPS) but also FCC should test for fundamental and harmonic interference using a variety of ARS installations including weak signal VHF, UHF and microwave stations. Those employing EME should be among them,

CSVHFS believes the American Radio Realy League (ARRL) did an excellent job documenting significant interference at many BPL test sites. They performed actual analysis of the effects interference effects associated with deployed BPL experimental systems. However their analysis concentrated on the HF bands. Similar analysis must be done, and tests conducted, at VHF, UHF and microwave frequencies before a final judgment about how BPL is to be deployed is established. None of the proponents of the technology have furnished any such detailed analyses, much less any test results of its interference potential. Some even appear to imply that the benefits the technology will bring outweigh any inconveniences BPL might cause to other services using the RF spectrum. CSVHFS sees this attitude as outrageous and an admission they expect interference from BPL.

CSVHFS agrees with ARRL and a number of others commenting on the FCC's present Docket in charging that BPL is a major threat to all users of the RF spectrum. Once BPL is authorized for operational use, we are certain there would be great difficulty monitoring, controlling, enforcing, and possibly terminating its use - no matter what it does to public safety systems, homeland security "First Responder" systems (e.g. SAFECOM), White House Communications Agency (WHCA: Project Pioneer), ARS users, DoD missile defense systems, military (US and Allied CONUS training and exercises), Intelligence Community users, and other services.

If BPL were the only way of bringing broadband into homes, it might be considered

a reasonable trade space given the interference it is known and proven to cause. While CSVHFS and others who have commented about BPL, do not subscribe to this notion, it can be seen that some groups might. We believe there are better ways to accomplish the desired result, without the inherent interference of BPL. In our letter of August 16, 2003, CSVHF urged the commission to consider these other approaches.

For these reasons CSVHFS joins ARRL, AMSAT, and thousands of individual amateurs, plus many other organizations, in respectfully urging the Commission to take much needed actions to insure further, documented testing of BPL effects in the VHF and UHF RF spectrum and that further steps to authorize wide spread deployment of BPL systems be withheld until such testing is completed and appropriate reporting, enforcement, and interference penalty policies for non-compliance with FCC-directed interference mitigation actions are formally established through the normal "comment" process.

Respectfully submitted,

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