

November 3, 2004

James R. Burtle
Chief
Office of Engineering and Technology
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

Re: Response to ARRL Letter dated October 11, 2004 re: Experimental Station WB9XVP (File No. 0136-EX-ST-2004 at Cottonwood (Yavapai County) Arizona; Broadband Over Power Line System; Evaluation and Critique of 6-Month STA Report

Dear Mr. Burtle:

This letter responds to the above-referenced letter of the National Association for Amateur Radio (the "ARRL") purporting to evaluate and critique the six-month report of Electric Broadband LLC (the "Licensee") and renewing a request to terminate the experiment. Although not a formal complaint requiring response by the Licensee, the tone and unwarranted allegations of the ARRL require some response.

The ARRL Letter attempts to make two basic points: (1) that the Licensee has submitted compromised test data relating to Part 15 compliance; and (2) that the experimental system is causing actual interference to licensed amateur radio operators and that the Licensee continually denies such interference. This letter responds briefly to each of these points.¹

The ARRL letter dedicates substantial time to an attack on the test methodology used to test Part 15 compliance of the experimental system. In particular, significant discussion is devoted to the "impossible results" relating to the ambient noise measurement with the system on and off and the ARRL determines that the test setup must have been changed between measurements. However, the only change was the time of the testing--there was an eight-hour gap between system on and system off tests. In order to conduct the system off measurements, the entire system was shutdown, not just a particular node. Given the time difference, one would expect variations in the specific ambient noise readings.

Contrary to the implications in the letter that the system has consistently operated out of Part 15 compliance and no steps have been taken to fix identified problems, the Licensee has, in fact, made system modifications designed to address issues. For example, the ARRL again points to the Licensee's statement about the "reboot" power problem that was identified through

¹ We will not respond here to the vitriolic attacks of the ARRL and Mr. Imlay on the Licensee and the Commission, except to note that the unprofessional accusation by ARRL that Electric Broadband would intentionally alter test data to mislead the Commission is unfounded.

the experimental testing as an ongoing violation of FCC rules. However, the truth is that the Licensee identified the problem, notified the manufacturer of the equipment and implemented a system fix that solved the problem. Thus, Electric Broadband has reacted exactly how an FCC licensee is expected to react when a system problem is found that results in an FCC rule issues. Similarly, the ARRL notes that the six-month report indicates that in the 30-50 MHz range², the system was operating above-acceptable Part 15 limits. The Licensee agrees. On or about September 24, 2004, the power of the system was reduced in that range to address the matter.

The Licensee believes that the measurements reported to date have been consistent and show that, with exceptions that have been addressed, the system has operated and will continue to operate³ within Part 15 limits.⁴ Electric Broadband would be interested in reviewing the more detailed test data that ARRL must have collected in order to further review its claims (e.g. spectrum graphs and the identified video).

Finally, the Licensee respectfully submits that it is the Commission and not the ARRL that ultimately will determine whether the data provided is sufficient and accurate and whether further testing, or a different test methodology is needed. To the extent, however, that the ARRL would like to work constructively with Electric Broadband and its partners to further develop the equipment and ensure that any interference concerns are addressed; the Licensee would welcome the opportunity.⁵

With respect to claims of harmful interference by the experimental system, the ARRL wrongfully submits that the Licensee has a practice of “denial of any interference issues associated with this system, despite continuing complaints and detailed and accurate technical showings by the Cottonwood area licensees.” It is interesting that within its letter, the ARRL both claims that the Licensee’s interference mitigation efforts have not worked *and* that the Licensee has denied any interference. This sort of argument in the alternative would seem to weaken the ARRL’s claims. In fact, the Licensee has expended significant effort in identifying and addressing potential interference to local licensed operators, including “notching” out BPL operations in all amateur radio bands. In addition, the Licensee has since September 2004 begun working directly with the Verde Valley Amateur Radio Association (“VVARA”) to address interference concerns. The VVARA members are the very “Cottonwood area licensees” that the ARRL claims that the Licensee has ignored.

² Of course the system does not operate above 38 MHz as specified in the license grant.

³ The systems continues operation, of course, under the extension authorization automatically granted under 47 CFR 5.61(b).

⁴ The measurements made were never identified as CISPR or ANSI compliant, rather they have been preliminary measurements made to address interference claims and to determine Part 15 compliance in the initial instance. The Licensee intends to conduct further more detailed Part 15 testing as indicated in its application for an Experimental License.

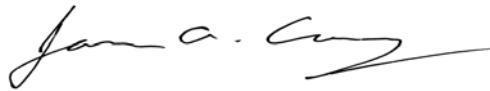
⁵ The ARRL’s efforts to date, of course, demonstrate that it has no interest in working to allow amateur operators and BPL operators to operate without interference. Rather, ARRL’s only apparent interest is to see deployment of the technology blocked.

In an October 5, 2004 filing in ET Docket Nos. 03-104 & 04-37,⁶ VVARA noted that the Licensee “has spent hundreds of hours adjusting and readjusting” the system. Such effort goes far beyond simply “denying interference issues”. In addition, the VVARA Report states that “[t]here does appear to be a noticeable reduction in radiated power in some bands where notching is attempted”, on the order of 20 db below levels above and below the notched bands.⁷ Thus, the VVARA report demonstrates that the experimental purpose of the operation is being met and the Licensee is identifying and implementing techniques to address interference issues.⁸

The ARRL letter simply ignores the progress that has been made to date under the experimental operation. Further, it points to no specific new interference complaints, but simply states, based solely upon its academic analysis of the six-month report, that interference continues. Indeed, any analysis by ARRL of harmful interference is necessarily academic given that it must travel to the test site to take measurements and experience “harmful interference”. As VVARA noted in the VVARA Report, “[d]ue to the geographically small size of the trial area, no fixed amateur station is currently located near the BPL equipment.” In any event, Electric Broadband has developed a working process with VVARA to field interference reports and coordinate responses and, since September 2004, has received no additional reports of actual interference to amateur radio operators. Thus, the Licensee submits that it has operated well within the requirements of an experimental license holder and should not be subject to shutdown by the FCC.

In conclusion, as discussed above, the ARRL Letter does not accurately reflect the actions of the Licensee in operating the experimental BPL operation in question – Electric Broadband respectfully submits, therefore, that shutdown of the experiment is unwarranted and unnecessary.

Respectfully Submitted,



James A. Casey
Counsel for Electric Broadband, LLC

cc: Christopher D. Imlay, Booth, Freret, Imlay & Tepper, P.C.

⁶ See *Verde Valley Amateur Radio Association BPL Committee Report on the Effectiveness of BPL Notching as of October 2, 2004, at Cottonwood, Arizona Trial Test Sites*, Reply Comments in ET Docket Nos. 03-104 & 04-37 (October 5, 2004) (the “VVARA Report”).

⁷ *Id.* at 2, 3.

⁸ That the VVARA Report questions the overall effectiveness of notching and identifies remaining problem bands (which the Licensee is currently exploring) does not alter the fact that it shows progress and successful joint efforts to ensure that the benefits of BPL will be realized, but not at the expense of the amateur radio licensees.