

I had the opportunity to observe the video tape prepared by Ed Hare, W1RFI, subject: a BPL survey, and it scared the Hxxx out of me.

As he drove around in the vicinity of the BPL test areas there were varying degrees of RF noise picked up, ALL would interfere with high frequency radio communications. Keeping in mind that Ed's antenna was a severely shortened dipole (inefficient) there were areas that he surveyed that the existing, supposedly Part 15 compliant, BPL noise would have prevented any high frequency communications from his mobile station. And that would exclude him from participating in any emergency related communications effort.

With an efficient antenna, the S9 noise level he observed would become 10dB over S9. S9 = 50 micro volts at the receiver. As most amateur radio high frequency communications take place at a level of S6 (25 micro volts) or below BPL will render high frequency amateur radio useless.

I suspect given the level of interference that Ed observed the existing BPL test areas do not comply with part 15 requirements, which is exactly what I expect from power companies. In my own case I experience several power line generated noise sources that measure in the vicinity of 50 micro volts on the 80 meter amateur band. Over a period of 6 years the power company RF personnel have been constantly changing. It seems that this is the last assignment a lineman gets before he retires and he is just serving out his time. Arizona Public Service does respond to my complaints, but until I started locating the noise sources myself the noise persisted. They have some very nice equipment for locating noise but they don't seem to have the desire or know how to use it and will not let me use it so I have acquired my own. Not as efficient as their equipment but I do have the desire and that is what makes my high frequency operation amateur radio operation possible.

As a side note: several times after I have had success with getting APS to eliminate noise sources, I have overheard neighbors comments to the effect "that ham must not be transmitting anymore because I don't get the (TV/RADIO/TELEPHONE) interference".

And some of the problems that APS corrected at my insistence would have eventually resulted in property damage, possibly life threatening.

Before I started locating the noise sources myself the RF investigators supervisor told me that the system in my area was very old and they never would get rid of all of the interference I was experiencing. With that management attitude toward existing powerline interference in the high frequency radio spectrum I can see BPL as being a total disaster for all high frequency radio service: military, public service, commercial, broadcast, and amateur.

A fellow engineer pointed out that FM public service communications will not be affected by BPL because the limiters in their receivers do not respond to amplitude noise. Unfortunately two-way radio manufacturers quit using limiters and discriminators in their receivers about 30 years ago and the popular quadrature detectors do respond to amplitude noise. BPL WILL have an adverse effect on low band public service and two-way radio users.

de Paul Playford, Amateur radio operator/station W8AEF