

Some have claimed that BPL won't cause harmful interference to users of the frequency spectrum that BPL utilizes on the power lines. Others have challenged users to demonstrate harmful interference from BPL.

I have made firsthand personal observations of the BPL test area in Briarcliff Manor N.Y. There is no question that very harmful interference is present on numerous bands assigned to the Amateur Service. Throughout the test area one entire band (15 Meters, 21.000MHz-21.450MHz) was completely unusable. Another band (10 Meters, 28.000MHz-29.700MHz) was also completely unusable in part of the test area. Other bands also showed major interference. These tests were made using the mobile amateur radio installed in my vehicle. As I don't live in the immediate area of the test, I couldn't assess the impact on my home configuration, but as my home configuration receivers and antennas are more sensitive it is clear that the interference would be much worse than the intolerable interference I observed.

I will attempt to address this with the utility directly.

Given the continuing problems getting the power companies to address and correct interference problems with their existing services and other more recent events. It would seem certain to me that if BPL in anything like it's current form were to be allowed, it would be equivalent to the Amateur Radio Service (and many other spectrum users as well) surrendering substantial parts of the spectrum in which they are the primary users. This is intolerable.

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Observations in the Briarcliff Manor N.Y. BPL Test Area 13 August 2003

One of the test areas for BPL is in Briarcliff Manor N.Y.. As best we understand it the test area is quite small consisting of about a 1 mile stretch of Pleasantville Road and 3 side street segments extending 0.5-0.7 miles off of Pleasantville Road

I made a series of tests between 9:30 and 11:30 AM EDT today - 13 August 2003. I was using my mobile HF rig - an Icom 706MkIIIG transceiver and a High Sierra HS-1800DX antenna.

First I drove along the main section and 2 of the three side segments (I was unaware of the third side segment at the time) listening on 20M (14.040 MHz). Throughout the test area and extending at least a short distance beyond very noticeable bursts of noise we heard. I then drove over the main segment again listening on 15M (21.350 MHz) and heard a very loud continuous noise signal.

I then stopped at three locations and made more detailed observations.

At the first location near the center of the main segment:

I listened to 12 frequencies on 20M (14.003-14.350 MHz) and heard bursts of noise the measured S7 to S9 on my S meter. Similarly I listened on another 12 frequencies on 10M (28.056 - 28.983 MHz) and heard similar signals that were even stronger, S8 to S9+20dB! It should be noted that you could hear these bursts across the entire band not just at the frequencies where I stopped to capture the S Meter readings! I understand that these bursts represent burst of activity on the BPL network and I presume the frequency of their occurrence would increase significantly if in a larger more heavily used environment.

I listened to 9 frequencies on 15M (21.085 - 21.438 MHz) and it was much worse a steady S9 to S9+20dB signal. This noise was clearly heard across the entire Band. 15M is unusable in this environment.

At this point I was beginning to think is this my radio?? So I drove about 5 miles away and listened across all three bands. Silence - no noise/interference heard across all 3 bands!

I then returned and stopped at three other locations in the test area. The observations at each of these were essentially identical to the first measurements on 20M and 15M. On 10M two locations were also the same but at third is also had a steady S8-S9 signal.

These steady signals on 15M and 10m (at one locations) sounded like solid noise with some slight clicking/wavering but not anything that would cause the S Meter to deviate from the intolerably loud constant interference level.

At one location on 20M I tuned into two voice and one CW(Morse code) QSOs. I could copy them 100% between bursts, but the interference bursts totally wiped out each of them - even the CW one.

As soon as I departed the area all bands were observed to be quiet and free of interference.

As this setup in neither my most sensitive receiver nor the most efficient antenna, I can only imagine what this would sound like at my home if BPL was active in my immediate neighborhood using my standard, more sensitive equipment. It would appear that HF would be unusable.

Notes:

- Amateur Receivers measure signal strength with a "S-meter" with is calibrated in a scale from S1 to S9. S1 is a very weak barely noticeable signal. S9 is a extremely loud signal. Even stronger booming signals are indicated as S9+10dB, S9+20dB..... Thus some of the interference reported is at the booming S9+20dB level!
- The antenna used in my mobile configuration is vertically polarized. This provides some degree of isolation from the power lines, which are horizontal. My home antennas, and most hams, are horizontally polarized which only increases the strength of the interference.
- My home station has receivers and antennas, which are more sensitive than the rather simple mobile configuration in my truck. If BPL was in my immediate neighborhood I would encounter worse interference than that reported above.