

To: Jaylan Dawson – Entergy

From: Joel Harrison

February 9, 2024

I am receiving power line interference to my federally licensed amateur radio station. I have invested time to identify the source and request your assistance as soon as possible to resolve the issue.

The interference is a very severe, classic power line “sparking” detectable from the AM broadcast band to well above 450 MHz. The interference began approximately four months ago intermittently. I had hoped the interference would stop however it has increased to continuously occurring 95% of the time, and “pops” off and on during the remaining 5%.

As shown in Figure 1, my station noise floor is typically -120 dBm. Figure 2 shows the power line sparking increases the noise floor to -95 dBm, a 25 dBm increase that completely eliminates the ability to hear and detect weak signals, especially from Europe, Africa, and the Middle East.

The source of the interference has been located. Detection was first accomplished utilizing my station equipment at 50 MHz, 144 MHz, and 432 MHz to identify the azimuth direction of the source. A portable 135 MHz AM receiver and 3-element yagi was then used to identify the general pole area of the source. Once identified, a parabolic dish with a 40 KHz transducer was used to identify the specific source pole.

Figure 3 indicates the source pole as number 498 63 6. This is the service feed for the residence at 2924 Highway 157 north of Judsonia. Figures 4 and 5 provide a broader overview of the pole and area.

The amplitude of the sparking noise is very strong at the pole and I was unable to identify the specific component as the source. My system does not have an attenuator sufficient to reduce the noise to a level of specific component detection.

Please contact me as soon as possible so we may resolve this issue as it is severely impacting my propagation research work. Please contact me at the phone number below when you are able to schedule a time to document the interference.

Regards,

Joel Harrison
528 Miller Rd.
Judsonia, AR 72081
501-230-1248



Figure 1 – Typical -120 dBm Noise Floor at the Station

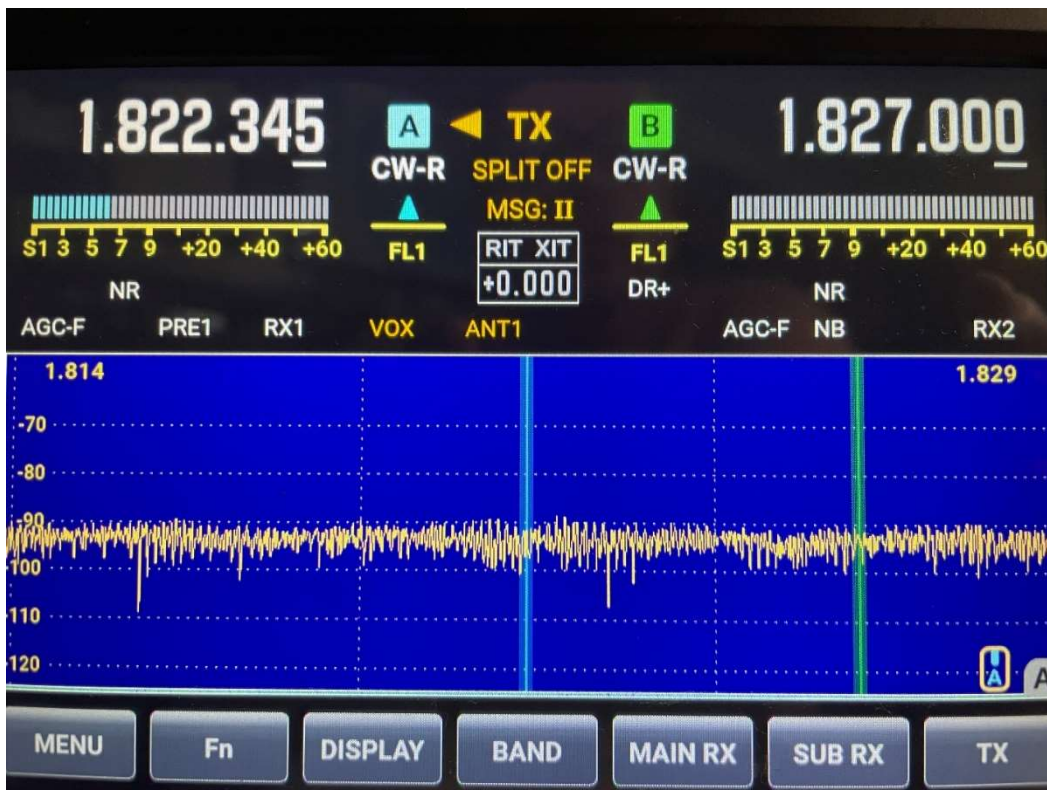


Figure 2 – Power Line Interference at -95 dBm



Figure 3 – Source of Interference: Pole 498 63 6 at 2924 Highway 157



Figure 4 – Residence Service Pole 498 63 6 at 2924 Highway 157

Pole 498 63 6 at 2924 Highway 157

