

LAMBERT AND ANTHONY

20 January 1996

Mr. Kermit Geary
1266 Riverview Drive
Walnutport, PA 18088

In re: Letter of 960117
Reception report
Berean Baptist Church

Dear Mr. Geary

Pastor Ron Baity of Berean Baptist Church has contacted me (and forwarded the letter concerning your reception report of station WPIP. Our firm is WPIP's engineering counsel of record. Enclosed please find a map showing the normally protected (0.5 mV/m, F(50,50) nighttime contour of WCBS New York, the absolute position of your receiving post, and the calculated F(50,10) 0.1 mV/m skywave contour of WPIP. Frankly, we are astonished that you could copy WPIP at all although you mentioned that you were using an Adcock antenna or a high performance ferrite H-field antenna.

As an aside, I had a Sony SRF-100 AM stereo receiver that would null out WAYS here in Charlotte (610 kc) perfectly and I could hear other stations holding the radio in various odd positions. Unfortunately, my poor little Sony went to my ex-wife in the divorce proceeding. (This is a little bit like the old management tactic of "when you want to fire someone, give them everything except the one thing they want.")

I haven't even heard the Hammarlund word in 10 years (I am 35). Frankly, a radio receiver with 18 valves boggles the mind. (Then again, I had a Kenwood KT-917 FM tuner (stolen from me in 1989) with a nine gang tuning condenser - two for the local oscillator alone!)

Also, I am quite flattered by your remarks about WPIP's signal quality. This is no accident. We are using a Gates BC-1(T?) which is the tall one with the holes in the bottom. The valve lineup consists of 828C's (with the pyrolytic graphite anodes) six type 807's (two for kF drive and four for modulator drive) and a couple of 12BY7's in the crystal oscillator and first buffer. This transmitter has been modified extensively including the installation of modern solid state rectifiers, polypropylene / polystyrene (where voltage permits) condensers, and metallised film (established reliability) resistors. This transmitter is high level plate modulated AM.

The "modification" consists of putting a 500 ohm 200 watt adjustable resistor in series with the B+ leading to the modulator's audio blocking choke (about 50 henries). The final amplifier is operated at 2500 vdc but the modulators are operated at 2,900 vdc. We can fit under the NRSC RF mask even at 140% modulation (positive).

Our transmitting antenna is the folded unipole type with three symmetrical feedlines running the entire length of the tower. Shorting bars permit us to tune the 200' tower's resistance to 50 ohms, and the remaining inductive reactance is tuned out with a single vacuum variable condenser. The impedance

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bandwidth is excellent, varying only one or two ohms within our allotted channel.

We think our audio quality is rather crummy, as BellSouth still cannot get a quiet programme link between our studios on Thomasville Road and the transmitter site downtown. There is a persistent 8000 hz squeal. This year, we will be installing Marti STL's and fire BellSouth. I've simply given up on them. Our audio processing consists of the CRL Audio Preparation Processor, and the middle one, but in lieu of their output processor, we are using Inovonics equipment for peak limiting and bandwidth control.

In answer to your question, you definitely received WPIP. I am astonished that you didn't also receive WBLU (or whatever it is now) at Smith Mountain Lake, (Moneta) Virginia, also on 880 kc.

The only other time I have ever received a letter like yours were from two independent DX clubs in New Zealand who heard my client KGOL Humble (Houston) Texas. My ex-wife insists that she heard the FM station in Charlotte on 104.7 mc at a rest area 30 miles into Virginia on Interstate 95. I once received WGBF Evansville, IN (1280) in Greensboro, NC perfectly for about four minutes. Once, one of my dearest friends (we've known each other since 8th grade) and our attorney were sitting in his parent's basement and instead of receiving channel 4 from Chapel Hill, we received channel 4 from Los Angeles. It is also usual in April to see KPRC-TV Houston (video only) completely overtaking WFMY Greensboro on channel 2. Somewhere I have video tape of this.

Well, I must be off to WOGF Charlotte to put tower 1 into nondirectional operation (tower 2, the other tower, has been the nondirectional tower so we could build #1's atu during the daytime.) Tower 2 has a massive kink in it and it is about to fall.

Thank you again for your letter, and have a safe, prosperous, and blessed year.

In His service,

York David Anthony

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