

## The Case of the Inappropriate Impedance A WN9AVT Mystery

I might as well tell you right up front that I'm a private detective. You may think I'm a bit young for this line of work since I'm in the 5<sup>th</sup> grade, but I'm well prepared. I've read all the Hardy Boys books and many of the Nancy Drew books (thanks to my sister). I read *SOS at Midnight* by Walker Tompkins. I watched *The Mystery of the Applegate Treasure* on the Mickey Mouse Club, when Frank and Joe solved the disappearance of gold doubloons and pieces of eight. And I even watched the Sherlock Holmes movie *The Hound of the Baskervilles* (with Basil Rathbone and Nigel Bruce) on TV – by the way, that movie kept me up a couple nights afterwards.

So how did I get my first case? It all started with my radio activities. Mom and Dad bought me a National NC-60 SWL receiver, and the twenty-fourth book in the Hardy Boys series (The Short-Wave Mystery – Frank and Joe were hams) spurred me on to get my Novice license in October 1961. My 7<sup>th</sup> and 8<sup>th</sup> grade social studies teacher (W9MNO) lent me a Heathkit DX-35 since I didn't have a transmitter yet.

My antenna at the time was a piece of wire going out the basement window, up the side of the house and then horizontally to the garage at the rear of our property. Using a cold water pipe as ground, it worked great for my SWL activities. But when I tried to load up the wire with the DX-35, funny things happened.

I could achieve a dip in the plate current when adjusting the FINAL TUNING control. But advancing the ANTENNA TUNING control resulted in the plate current dipping to an even lower current. It was supposed to dip at a higher current than the original dip. Not being well versed in all this, I simply adjusted both controls for the 100 mA current per the manual. Poor tube!

It took me a while to make my first contact despite CQing and answering CQs. About two weeks after my license arrived, a real strong signal showed up one afternoon on 80m calling CQ. Lo and behold, he came back to me. It was John KN9HFE operating the Purdue Calumet radio club station W9AUB. He wasn't too far away (a mile or two), and it was his first QSO, too. With new enthusiasm, I again jumped in with CQs and answering CQs. But again to no avail.

About two week later I ran across another strong signal calling CQ, but this time it was on 40m. It was Pete WN9BAB. He was only a mile away – within easy walking/bike riding distance. Although he had been licensed several weeks after me, he already had a pile of states worked. After telling him my woes, he suggested that I should try a 40m dipole. Aha! A clue to the mystery! Maybe my SWL antenna wasn't any good for transmitting.

The next Saturday Pete came over and we put up a 40m dipole between the house and the garage – it was about 15 feet high. After dipping the FINAL TUNING control and advancing the ANTENNA TUNING control, the plate current now dipped higher! After this, my states total sky-rocketed. Years later I understood that the problem was the long wire impedance was out of the range of the pi-network in the DX-35.

Case solved. Maybe you'll enjoy some of my other cases – like The Mystery of the Fluttering Signal and the Secret of the Dead EICO-720.

WN9AVT Mysteries

