The Milliwatt Log

By K8AAX

After a few years of QRO operating I started operating with QRP radios just for the challenge. I would buy one on Ebay and try it. If I didn't care for it I would sell it and try another. The one I liked best was the Index Labs. It could do everything and I had some fun with it. But eventually I sold it too. I had decided that I wanted to build radios. "I knew something about electronics. I should be able to handle this."

I'm Not a Very Good Technician

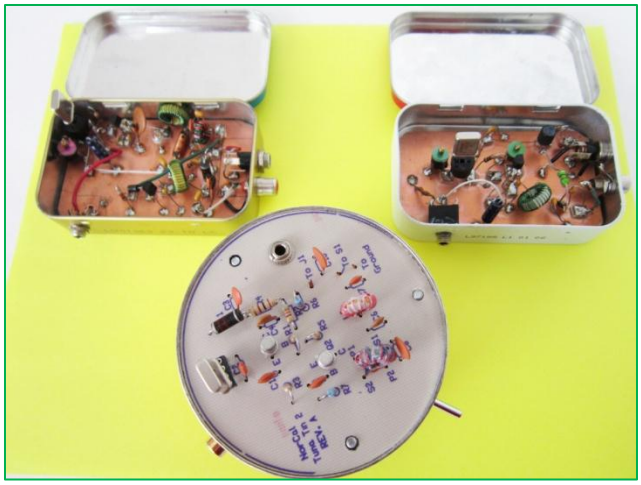
I bought a few simple kits and learned that receivers were tougher to deal with than transmitters. I actually sent one back to the kit seller and he got it going for me. I was informed that I had created a "dead short" in the circuit. What did I know?

I also sent the WM-2 Watt Meter kit back to the seller and I think he re-wound a coil for me. So my career as a builder has not been without its problems.

What I needed were simpler circuits to work with.

Milliwatt Transmitters

I bought a couple of Doug DeMaw QRP books and found some milliwatt transmitters that I thought I could handle. I also started looking at Manhattan style building web sites, bought circuit board scraps, and began collecting old pineapple tins(we don't eat tuna here)and Altoids tins. All projects have to have cute enclosures.



I was very concerned about having the correct parts back then. I have since lost my fear of parts substitutions. "If it looks like a transistor-- try it." I had a big fat Mouser Catalog that I ordered parts from. It took forever to make the shopping lists. I had to study the schematics and read the fine print. I ended up with some things I could use and some that were just plain wrong.

I bought a PC board for the Tunatin and built the other two transmitters Manhattan Style.

I learned about the joy of wrapping toroids and stripping the coating from that tiny wire. I also learned that it is a good idea to think about the layout of the project in an Altoids Tin before you build it. The jacks, pots, and switches are kind of clunky and get in the way. "Drill more holes and keep cutting!"

I put PNP transistors in one that called for NPN but they worked. I imagine the biasing is backward or something. All three transmitters worked with a minimum of troubleshooting and I was pleased.

The Milliwatt Log Begins

It all began in April, 2001. I used the TS-850 for a receiver and connected it and the transmitters through a coax switch to the antenna. I was so pleased with my milliwatt QSO's that I made a separate log for them and saved it.

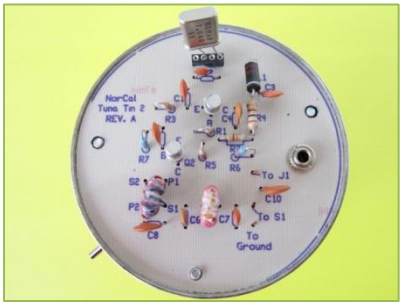
Some of the QSO's were just a few counties away here in Michigan.

States and Provinces in the log: IN. OH. TN. IL. NC. VA. MO. Ontario

I actually had A Tunatin to Tunatin QSO with W9VC in Indiana. That was a big deal. He said that his was built with dead CB radio parts. He is still an active builder and mentions having built numerous Tunatin transmitters on his QRZ site.

Milliwatt QSO'S

1. Tunatin II	Power: 250 Milliwatts	6 QSO's
2. Mighty Might	Power: 50 Milliwatts	5 QSO's
3. Pebble Crusher 2	Power: 500 Milliwatts	10 QSO's



Conclusion

The log indicates that my Milliwatt frenzy lasted for about two years off and on. I later built a couple of Rockmites and a K1. The tiny scratch built transmitters got me started. I admit that I am getting a little interested in it again as I think about it now.

Anyone can get some good ham radio memories and building experience from working with simple milliwatt radios. The QSO's mean a lot more to you because you get to tell the operator on the other end that it is less than a watt and you built it yourself.

If I can do this anyone can. Have fun.

Paul K8AAX February 2015

Footnote: The two QRP Books were W1FB's QRP Notebook and W1FB's Design Notebook both by Doug Demaw.