



# Squelch Tales



Newsletter from the Merrymeeting Amateur Radio Association for July 2012

## Have a happy Independence Day celebrating our Freedom

### Dayton Hamvention 2012: Another great ham radio experience

By Dan Romanchik, KB6NU

My Dayton experience started at 3:45 am Thursday morning. That's when I had to get up so that I could make it to the Fairborn Holiday Inn in time for the first session of this year's Four Days in May (FDIM) conference. FDIM is a one-day conference put on by the QRP Amateur Radio Club International (<http://qrparci.org/>) and is a great way to start the "Dayton experience."

This year, we were treated to six very fine presentations. They included talks on using microcontrollers for various projects, software-defined radio, VHF and UHF for QRPers, homebrewing with "hollow state" devices (more commonly known as tubes), using open-source electronic design tools, and operating pedestrian mobile. The two talks that I enjoyed the most were "Hollow State (Thermatron) Homebrewing" by Grayson, TA2ZGE/KJ7UM and "Leveraging Free and Open Source Tools in Homebrewing" by Jason, NT7S.

Friday morning, I got up early again, so that I could make the 7:30am bus to the Hamvention. We arrived about 8:00 am, just as the gates were opening. The first thing that I did was to head to the FAR Circuits tent, which is—as the name implies—at the far

end of the flea market. There, I made my first purchases, a board to make a regenerative receiver and one to make an audio breakout box.

The rest of the day was a combination of wandering the aisles of the outdoor flea market, fighting the crowds inside the arena, attending seminars, and meeting people that I know. By the time, 4:30 pm rolled around, I was pretty hot and tired. Temperatures topped 80 degrees, and on the blacktop surface of the flea market, temperatures were undoubtedly higher. I was happy to get on the bus and head back to the hotel.

Saturday, was pretty much the same story, except it was even hotter. The temperature almost hit 90 degrees. I didn't bring any sunscreen, either, so I got a little rosy.

I ran into some people that I knew that had just come down for the day, or perhaps that I'd missed the day before. One guy I ran into at the Ohio Repeater Council booth, pulled out his new Elecraft KX-3 and gave me a quick demo. It's actually quite a cool, little radio. I'm still saving up for a K-3, though.

Around noon, I went to the food court for a slice of pizza and a glass of beer. Seating is catch as catch can, so I shared a table with several other hams. This is great because you get to meet all kinds of different people.

This year, an older gentleman sat down next to me with his beer. We got to chatting, and as it turned out, this was his 55th

straight year attending the Dayton Hamvention! He started going before it was even held at Hara Arena, and even after they moved to Hara, they didn't use the entire facility as they do now. I'm really glad that I got to speak with him.

So, what did you buy?

I didn't really go down to Dayton with much of a shopping list. In addition to the PC boards, I did pick up a bunch of other little stuff including some strain reliefs, more clamp-on ferrite cores, a paddle pad from Vibroplex (\$1) to keep the paddle down at the club station from sliding around, and some tube sockets! One of the vendors there had a box of tube sockets that they were selling for a quarter apiece or five for a dollar. I picked out five and paid the lady, and as I was walking away, I decided that they were such a good deal that I went back and bought five more.

My biggest purchase was NT7S's OpenBeacon QRSS transmitter ([www.etherkit.com](http://www.etherkit.com)). It cost me \$40. It looks like a very nice kit, and I'm hoping to be on 30m QRSS shortly with it. The nice thing about this transmitter is that it has a microcontroller that lets it transmit DFCW and Hellschreiber, in addition to CW. It should be fun to both build and operate.

Too rich for my blood

In other news, both Kenwood and FlexRadio both introduced new radios at Dayton. Perhaps the most buzz was around the Kenwood TS-990. All they were showing was a prototype under a Plexiglass cover. In addition to being incredibly expensive, the radio is huge! I heard someone joke that to produce this radio, Kenwood is going to have to corner the market on buttons and knobs. If you've seen the photo in QST (which was allegedly produced with Photoshop), you'll know what I mean.

The other radio with a bit of buzz is the new FlexRadio FLEX-6000. For the past

couple of weeks, the FlexRadio website was proclaiming that this radio was going to be a game changer. Perhaps it is, but at \$6,000+, this radio is out of my league, and too expensive for the majority of radio amateurs. That being the case, I really don't know what all the buzz is about.

I'm sure that the TS-990 and the FLEX-6000 are both great radios, but I think that the law of diminishing returns applies here. At some point, are you really getting \$6,000 or \$12,000 of fun out of the radio? I don't think that I would.

Well, that's it. Another Dayton Hamvention is in the bag. It was a lot of fun, and I'm already looking forward to next year. I've already contacted one of the forum organizers about adding an adult education forum. I think that's something that's both needed and would be popular. I'll just have to make sure to leave enough time to hit the flea market and grab some more tube sockets or coax or whatever.

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When he's not tromping around flea markets, or attending conferences, Dan, KB6NU, writes books about ham radio. His latest, 21 Things to Do After You Get Your Amateur Radio License, is available as an e-book from Amazon, Barnes&Noble, or from his website, <http://www.kb6nu.com/>. You can e-mail him with comments, questions, compliments, or brickbats at:

[cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).



## To All New England Clubs

The New England ARRL Convention in Boxboro is one of the most successful and consistent Ham Radio gatherings in the country! Since 1978 the hams of New England and the Northeast have gathered in Boxborough, MA on even years to attend seminars, swap stories, and buy equipment.

For 2012 we are making a special effort to bring clubs and club groups to the convention. There are special deals on club tables at both Banquets. Get eight people together, reserve a table, and you will only pay for 7!

We have publicity materials available on our website:

[http://www.boxboro.org/clubletter\\_2012.pdf](http://www.boxboro.org/clubletter_2012.pdf)

[http://www.boxboro.org/handout\\_2012.pdf](http://www.boxboro.org/handout_2012.pdf)

Please feel free to use this material your next club newsletter, or use the press release included below.

What else can your club do?:

Does your club have something to say?

- Contact us for information about a club table. (k1twf@boxboro.org)

Want to volunteer to help?

- Contact our Volunteer Chairman, Tom, K1TW (k1tw@boxboro.org).

Need something bigger than a fleamarket space for selling?

- Contact our Vendor Chairman, Bo, WA1QYM (wa1qym@boxboro.org).

Have something to offer for the forums and talks, or thinking about a special interest meeting?

- Contact our Program Chairman, Ken, WO1N (wo1n@boxboro.org).

**Very Truly Yours,  
Mike Raisbeck, K1TWF  
Convention Chairman**

## **QUICK PRESS RELEASE FOR CLUB NEWSLETTERS**

August 24, 25, and 26 is Boxboro! 2012, the ARRL New England Convention. There is so much to do at Boxboro, starting with the DX Dinner on Friday night which features

Don Greenbaum N1DG telling about the VP8ORK South Orkney

Island DXExpedition. Saturday night is the Grand Banquet featuring Fox 61 Meteorologist Geoff Foxx, K1GF!

Out forums and talk schedule is second to none!

VE exams and DXCC card checking are available, and of course there's the outdoor flea market and indoor exhibit area with all the major manufacturers and many others. Don't forget the Wouff Hong ceremony at midnight on Saturday.

There are hourly prizes, and some big prizes at the end. Visit:

<http://www.boxboro.org> to purchase tickets in advance!

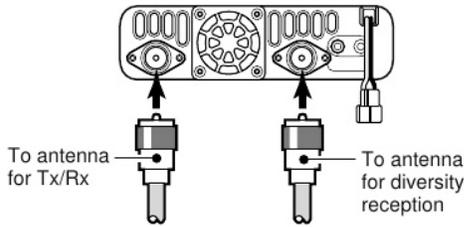


## **My Experience with Diversity Receive**

**By Donnie Dauphin, WD1F**



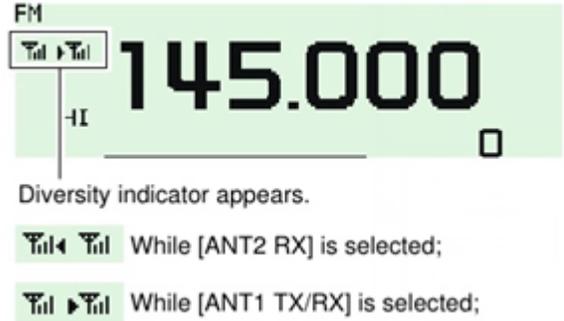
Recently I purchased an IC-2820 for my car. I couldn't help but notice there were two antenna ports on this radio and further reading showed I could optionally connect a second antenna for diversity receive. In short diversity receive is the ability of the radio to choose between two antennas the one with the strongest receive signal. But is it worth the effort?



At first I installed the radio with a single antenna and it worked just as good as the radio before it. Then I had an antenna mount break on my car. So I decided I would replace it and add another to see if this diversity receive was worth the trouble. I ordered two-trunk lid mount Larson NMO-TLP bases.

Installing the antennas was pretty easy. My radio is in the trunk so I shortened the coax to ~6' and installed PL-259 connectors. I was a little concerned about the separation of the antennas but after some reading I determined I could be as little as 1/4 wavelength away. Some quick math  $468 / \text{frequency in MHz}$  gives 1/2 wavelength in feet. I used the lowest frequency I would likely be using of 144mhz. I found I only needed ~19.5" of separation. I was easily able to get that distance and a little extra.

After installing the two antennas I tuned the radio to the national weather service. I selected a frequency that was weak which I believe was 162.400 from my garage. I connected a single antenna to the second antenna port, which is receive only, and I heard nothing. I went into the setup menu on my radio and turned on diversity receive, still nothing. After a bit more reading I learned it only works when using the radio in single mode. I believe another way of saying that is 'without dual watch enabled'. So I selected single mode and I started hearing the national weather service.



The IC-2820 has an indicator that shows two antenna symbols and an arrow showing which is currently being used. I found the port for transmit and receive was the symbol on the right so I connected the passenger side antenna to the main port. The driver's side antenna to the optional diversity receive port.

Now for a test. I moved very slowly down my driveway and watched the display and hit a tree. Just kidding about the tree. Anyhow sure enough it worked. The indicator showed the radio quickly switching back and forth from antenna to antenna as I moved forward. I then turned off diversity receive and rolled forwards until I found a fairly bad null where I could mostly hear static. Then turned diversity receive back on and the signal strength and audio came up immediately. Then I did a series of tests rolling down my driveway with diversity receive on and off. I found it makes a very noticeable difference.

Next was a rode test. I took a drive to our local fire department and sat in the parking lot moving back and forth to see what difference it made. I found a very noticeable difference and one of our local law enforcement officers. No joke about the law enforcement officer, he thought perhaps I was doing some drugs or something so he decided to come see what I was up to.

I learned about the car that showed up before mine. It had a lady having a allergic reaction to a bee sting. The police officer had to stab her in the leg with an EpiPen and she was taken away by ambulance. I assured the officer I would not be needing an EpiPen or a ride. I then explained the new feature my 'Amateur' radio had that his 'professional' radio did not. OK back to diversity receive.

I learned that Diversity Receive works and makes a noticeable difference. In my opinion is worth the trouble of the second antenna mount. I'm really anxious to try this feature when using my radio for D-Star digital communications. Time to go see Bill on the Hill to get help getting the KS1R D-Star gateway / repeater running.

73, *Donnie*



## *Protecting your shack from lightning & Power line surges*

By Bruce Randall W1ZE

This past month while surfing on one of my favorite ham radio web sites, DXzone.com, there was an article on “*Lightning and surge protection,*”

<http://www.dxzone.com/dx27105/lightning-and-surge-protection.html>. This reminded me of the steps I have taken to protect my home and shack while living here along lightning alley, the Kennebec River where we have many lightning events and power line surges. I thought the above article would be very useful information.

The article refers to “Whole House Protection” and to me this is very important first step and not just for my ham radio equipment. A WHP device will help protect all the expensive stuff in your house like TV sets, refrigerator-freezers, etc. A whole

house surge protector can be purchased at the big-box hardware stores or electrical supply outlet. If you do not have one installed yet, get one and install it. If you are handy with household wiring you can install it yourself. If you don't feel comfortable working in your house power distribution panel, get your friendly electrician to do it for you.

Here are some possible sources:

[http://www.homedepot.com/Electrical-Breakers-Distribution-Load-Centers-Whole-House-Surge-Protectors/h\\_d1/N-bm05Z5yc1v/h\\_d2/Navigation?langId=1&storeId=10051&catalogId=10053&searchNav=true](http://www.homedepot.com/Electrical-Breakers-Distribution-Load-Centers-Whole-House-Surge-Protectors/h_d1/N-bm05Z5yc1v/h_d2/Navigation?langId=1&storeId=10051&catalogId=10053&searchNav=true)

[http://www.amazon.com/WHOLE-LIGHTNING-PROTECTOR-Spike-Ender-Suppressor/dp/B003Z9S974/ref=pd\\_sim\\_sbs\\_hi\\_4/175-5559980-2006148](http://www.amazon.com/WHOLE-LIGHTNING-PROTECTOR-Spike-Ender-Suppressor/dp/B003Z9S974/ref=pd_sim_sbs_hi_4/175-5559980-2006148)

[http://www.lowes.com/pd\\_52328-76863-THSASURGE60\\_0\\_?productId=3438338&Ntt=whole-house+surge+protectors&pl=1&currentURL=&facetInfo=](http://www.lowes.com/pd_52328-76863-THSASURGE60_0_?productId=3438338&Ntt=whole-house+surge+protectors&pl=1&currentURL=&facetInfo=)

73, *Bruce*



## *Happy Independence Day*

