



BROOKHAVEN NATIONAL LABORATORY AMATEUR RADIO CLUB FEBRUARY 2014

NEWSLETTER

Good Old-Fashioned Ham Radio (CW)

Nick Franco KF2P

Now that the Morse code requirements have been completely dropped from getting an Amateur Radio license, one would think this art form and communication method would simply drift away. However, after receiving a Ham License, some people are learning the benefits of knowing the Code and using this mode to make many great contacts and have fun in our hobby. To this end, we have been offering a Morse code class, and some new hams are enjoying the experience.

Let me offer some practical reasons to “work CW.” The most important thing to me is the band width used for CW as opposed to any other mode. In AM, SSB, FM and even some digital modes the band width required to make good contacts increases dramatically with the sophistication level of the mode. Of course, TV images band use is exorbitant. Then there’s CW, weighing in at about 150 Hz. Imagine how many independent CW signals at 150 Hz can be heard in the same band width requirement of one SSB signal at 300 to 3000 Hz? The efficiency factor is obvious though theoretical. However, suffice to say, there can be many more CW signals heard in a narrower segment of any band.

Another reason is that CW is allowed anywhere on any band (not sure about the new 60 meter band allocation). I have been in QSO with a station on phone SSB, and as the

conditions deteriorated, we just switch to CW to finish our QSO. There are also some segments of our bands that are dedicated to CW only, but not the other way around. If you listen on the air to these areas, you will realize that CW is far from its demise.

Some people, like me, have a significant hearing disability. It is extremely difficult for me to understand people’s voices and distinguish letters from each other. Add some static or other stations close by, and I am rendered useless on phone.

However, I can lock onto a tone through all kinds of

interference and maintain the QSO almost unhindered. Since CW has such a narrow band width, tight filters can be engaged to trim off interference significantly and yield a workable signal to make QSOs.

There are many clubs out there dedicated to CW or at least promote its use. There is even one specifically devoted to the

preservation of Morse code called FISTS www.fists.org. There are contests and special events as well as a ton of rare DX available to anyone who enjoys this mode of operation. Kits can be purchased that you can build yourself. There are some for SSB, but CW is a simpler circuit to build and understand, so there are many choices out there. It is fun and rewarding to build a transceiver from a kit, and then get on the air and actually communicate using something you built yourself.

Everyone CAN learn Morse code. You just have to want to learn it. So if you think you’re up to the task, ask about our CW classes and get involved in a whole new part of the hobby that you can add to your repertoire.





A Low Cost Mobile Radio

By Lisa Soto KC2FFJ

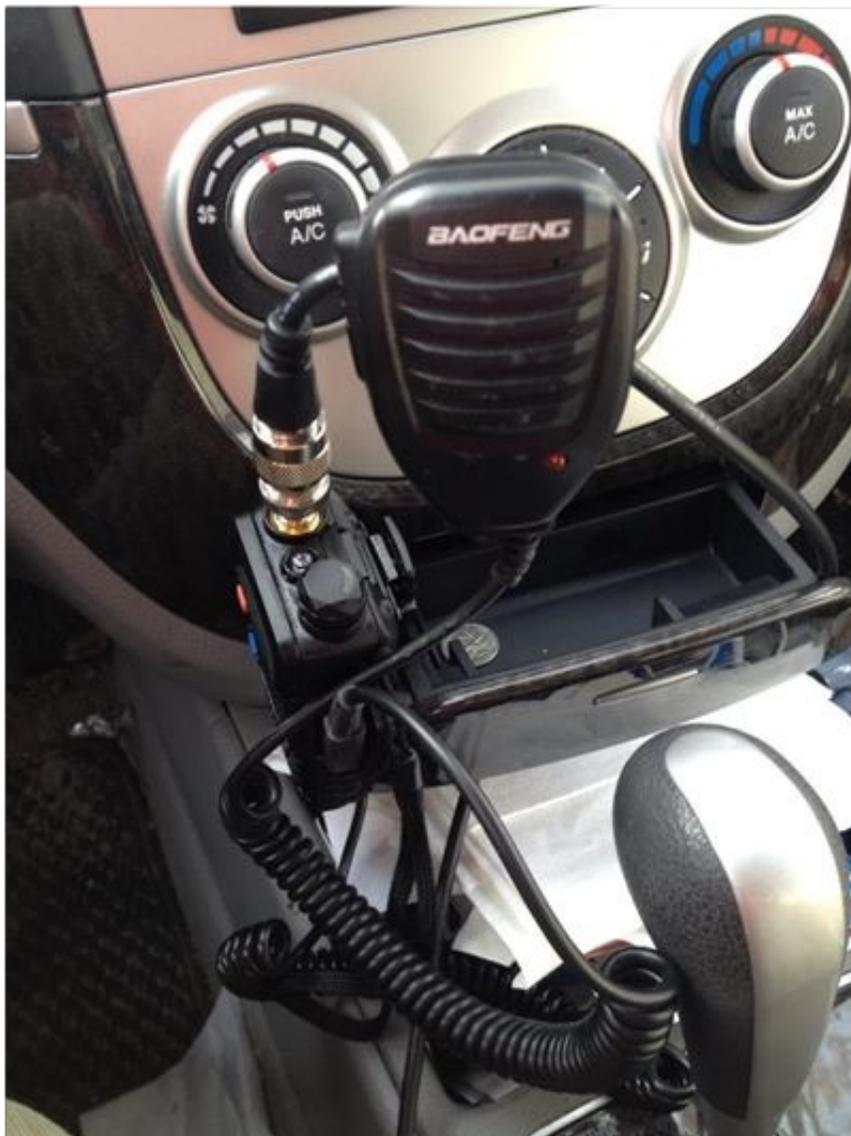
Hi, my name is Lisa Soto and I'm one of the newly minted HAMS from the November technician exam. A good part of the allure of the technician course was that I was promised I didn't need to spend a lot of money to get into the hobby. The Baofeng UV-5R was introduced to me and I was pretty impressed with what this little radio could do with just a few low-priced accessories.

I'm naturally paranoid about leaving things in my car and I was worried that I'd spend a lot on a mobile rig only to have it stolen or have my car vandalized.

Shopping around a bit on amazon.com I came up with an idea for an inexpensive mobile rig based on the Baofeng UV-5R HT that I already had. I bought another unit just for the car (\$39) and installed a mag-mount antenna on the roof (TRAM 1185 \$16, adapter \$4). I replaced the battery in the handheld with a battery eliminator (\$13) and added a speaker mic (\$7). My one regret so far is not getting an antenna with more gain to really boost the power of the 5w handheld.

My next challenge was finding a spot or method of mounting the radio setup in the car. The pull out ashtray turned out to be just the thing since I wasn't using it for anything else. I can clip the radio to the ashtray and it stays pretty well. It's easy to pick up the unit and flip through the channel memories.

I spent a total of about \$79 to get a working rig in my vehicle. That was an acceptable risk to me. Maybe over time as this works out without incident I'll be bolder in putting more expensive equipment in my car.





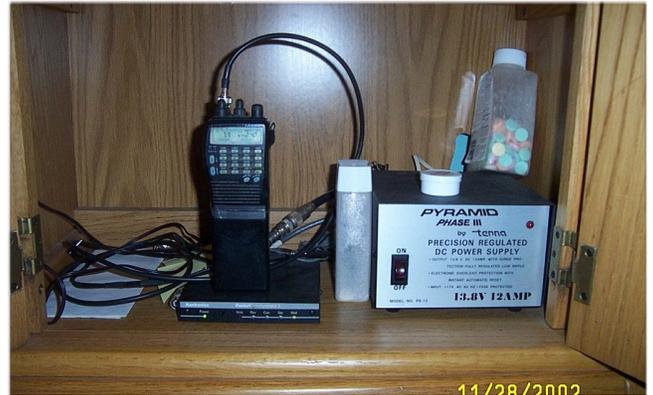
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Ham Shack Spotlight

Rich Conte N2RRQ

Top right is a picture of my "first shack" if you want to call it that. People seemed to get a kick out of this picture back in the day. Basically it's my first radio (a Yaesu FT-530) connected to a Kantronix KPC-3 TNC. The "shack" was in my bedroom and just below my Comet GP-3 dual band vertical and Cushcraft 11 element 440 beam mounted about 20 feet above the roof. I was running this radio as the sysop of the K2BNL packet BBS. I ran a 60 foot long serial cable through my attic to the computer on the other side of the house to control the TNC and BBS. When I wanted to run voice I just disconnected the TNC and used the internal mic on the FT-530 in the bedroom. I ran this way for many years until packet radio died off and I eventually took down the K2BNL BBS. The TNC and beam have been sold off

My current "shack" (middle right) is now on the other side of the house by the computer and it's not much more



impressive than the old one. I have more HT's now and an HF radio connected to a trap dipole. The Comet vertical has been moved to the other side of the house and is now just above the current "shack" location. I still connect up my FT-530 to the vertical when working the repeater as I have no base (mobile) radio other than the one in my car but the FT-530 is in rough shape now, held together with spit and bubble gum and I would never use it for anything other than a "base" radio.

Bottom left is a picture of the vertical and trap dipole. The homemade "tower" was put up a few years ago with the help of Hugh KA2DRR and Fred N2LOB.



BNLARC Field Day 2014: June 28-29

Gary Stevens KD5SFQ

ARRL Field Day is the most popular on-the-air event held annually in the US and Canada. On the fourth weekend of June of each year, more than 35,000 radio amateurs gather with their clubs, groups or simply with friends to operate from remote locations.

Field Day is a picnic, a campout, practice for emergencies, an informal contest and, most of all, FUN!

It is a time where many aspects of Amateur Radio come together to highlight our many roles. While some like it for the contest, it is also an opportunity to practice their emergency response capabilities. It is an excellent opportunity to demonstrate Amateur Radio to the organizations that Amateur Radio might serve in an emergency, as well as the general public. For many clubs, ARRL Field Day is one of the highlights of their annual calendar.

The contest part is simply to contact as many other stations as possible and to learn to operate our radio gear in abnormal situations and less than optimal conditions.

But despite the development of very complex, modern communications systems — or maybe because they ARE so complex — ham radio has been called into action again and again to provide communications in crises when it really matters. Amateur Radio people (also called “hams”) are well known for our communications support in real disaster and post-disaster situations.

It is now time for us to form a Field Day committee, and that is where you come in. If you plan on participating in Field Day this year, start by helping us plan the event. It doesn't matter if you are a new ham or have been one for years. We all have the same set of rules and guidelines to follow.

To join the committee, just send me an email at gstevens@bnl.gov or kd5sfq@arrl.net. I promise you that it will be a rewarding experience.

So what are you waiting for? You know you want to help!

Calendar

March Each Week

M-W-F Technician License Class

Tu-Th General License Class

Friday's a noon New-be Net on K2BNL repeater

Each Sunday from 6pm to 8pm - BNL Repeater weekly Rag-chew

March 18th at 12 noon

Club meeting onsite at the Shack.

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Your Name Goes Here

Let's face it, clubs are more fun when everyone participates. Share your HAM tips, projects and experiences with us by writing a short blurb for the NEWSLETTER. Just send me your article or chicken scratch. It's all good!

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