



Squelch Tales



Newsletter from the Merrymeeting Amateur Radio Association for March 2014



Our Friends to the North Get Five Sixty-Meter Channels

From ARRL HQ

Industry Canada has granted Amateur Radio operators there the use of five 60 meter channels on a non-interference basis. The center-channel frequencies harmonize with those available to US radio amateurs on 60 meters: 5332 kHz, 5348 kHz, 5358.5 kHz, 5373 kHz, and 5405 kHz.

Given that use of these frequencies was requested, in part, to allow for cross-border communications in times of emergency," Industry Canada said, "harmonization of the frequencies with the United States would facilitate such communications between the Canadian and the US Amateur Radio communities."

Amateur stations will be restricted to USB, data, RTTY and CW modes, with a maximum bandwidth of 2.8 kHz, and a maximum power output of 100 W ERP - the same the US allows.

Canadian amateur operations shall not cause interference to fixed and mobile operations in Canada or in other countries," Industry Canada ruled, "and, if such interference occurs, the Amateur Service may be required to cease operations. The Amateur Service in Canada may not claim protection from interference by the fixed and mobile operations of other countries.



ARRL 100 Year Party this July in Newington

In July of 2014, thousands of members and friends of ARRL will gather at the Connecticut Convention Center in Hartford, ARRL's birthplace, to celebrate the organization's first 100 years of "Advancing the Art and Science of Radio."

One of the highlights of the weekend will be the ARRL Centennial Convention and booth space will be half price to clubs that wish to exhibit at the event. More details can be found at www.arrl2014.org but if you are considering exhibiting at the show, simply contact me to obtain an Exhibitors' package if you prefer.

Show hours will be Friday, July 18, 2014 from 9:00AM – 5:00PM through Saturday, July 19, 2014 from 9:00AM – 4:00PM and the price for a Club booth is half price, \$112. More details can be found at the link above or by contacting me. We hope that you'll consider exhibiting and being a part of a once-in-a-lifetime event, the 100 year celebration of ARRL.

73, *Deb Jahnke, KIDAJ*, Sales Manager,
[email:djahnke@arrl.org](mailto:djahnke@arrl.org)



A Headset Adaptor for Kenwood, Baofeng and Wouxun HTs

By Geoff Haines, N1GY

Here is a headset adaptor for some popular HTs

Recently, I had the inspiration to build a new headset adaptor. This time, for a Bao-Feng UV-5R hand held radio. These little dual-banders have become quite popular, mainly because they are very inexpensive. A friend of mine purchased one through Amazon for less than \$50. The original manual leaves much to be desired because it was obviously written by someone for whom English was not their native language, however several amateur operators have stepped up to the plate and rewritten the operating manual in much clearer terms. Included in these new manuals is the information that the Bao-Feng UV-5R uses the same circuitry for the speaker-mic and/or a headset as Kenwood does on many of their rigs. A neatly drawn circuit diagram was also included in the manual I found on line.

With that information in hand it was relatively easy to design an adaptor that would allow the use of a headset (originally designed for computer use) with the UV-5R. This circuit will also work, I am told, with Kenwood and Wouxun HTs that use the same connectors. The circuit is shown below. I used the same enclosure that I have for many of my other headset adaptors (available from Radio Shack) sized approximately 1" x 2" x 3" with hardware and two lids included, one aluminum and one ABS plastic. A 1/2" hole was drilled in the center of the plastic lid for the PTT switch and another 1/2" hole was drilled in the 2" end of the enclosure for a strain relief that brings the cable into the enclosure. Two 1/4" holes were drilled in the other 2" end for the 1/8" stereo jacks where the headset will be connected.

With the enclosure prepared, I found an old speaker-mic for an old Alinco DJ-F1T in my "junkie" drawer and scoped out the pin-out color

code. This cable uses the same 1/8" stereo plug and 3/32" stereo plug to connect to the HT as does Kenwood and Bao-Feng. With the color code of the cable worked out each of the wires in the cable was extended by soldering on about a 4" length of wire to each wire in the cable including the shield. A chart was made so that the color code changes were noted.

The components needed for this project are all available at Radio Shack with the exception of the coiled cable with the two stereo plugs pre-installed. One could easily substitute two regular straight cables and install the appropriate 1/8" and 3/32" stereo plugs that are needed to connect to the HT.

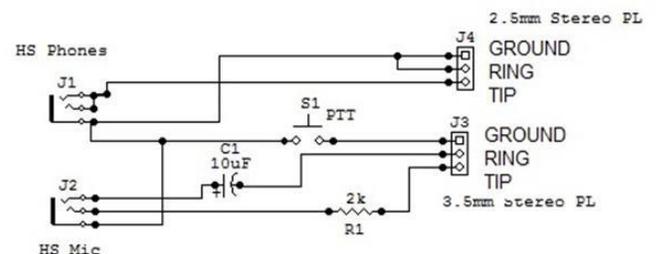
The parts list is as follows:

Quantity	Part Description
1	10 uF polar Capacitor
2	1K resistor (1/8 watt)
2	3.5mm (18") stereo jacks
1	Push Button (Normally Open)
1	1" x 2" x 3" enclosure
1	PC style Headset (These do vary

in performance. You may have to try several to find one that gives you the best audio performance. I standardized on a very inexpensive headset that I found at a Dollar Tree store locally. I purchased every one they had when I found out how well they worked for my purposes..)

1 or 2 suitable cables to connect the adaptor to the HT.

1 6" length of CAT-5 or other cable to provide hook-up wire to connect the components



If you choose to build this adaptor, Install the PTT switch in the top and then solder a length of hook-up wire to one of the terminals on the switch,

then set aside for now. Following the circuit diagram below, connect the appropriate components to the terminals on the back of the 1/8" stereo jack you have designated to be for the mic plug of the headset. The 2 1K resistors are soldered together in series and then one end of that assembly is soldered to the "tip" terminal of the jack. The negative pole of the polar capacitor is soldered to the "ring" terminal of the same jack. Each of the wires from the radio connecting cable is extended by soldering and heatshrinking a length of hook-up wire. This may not be necessary if you are constructing your own connecting cables, just strip the sheath back far enough to give you long enough individual wires to make the connections. I used, as mentioned before, an old coil cord from an elderly HT speaker mic and the wires in that cable, while sound, were not long enough to make the required connections inside the enclosure. Install the cable(s) using the strain relief in the 1/2" hole drilled in the short end of the enclosure and then solder each of the individual wires in the cable to it's appropriate connection point on the 1/8" stereo jacks and the PTT switch.

After all solder connections have been made, install the two 1/8" stereo jacks in the holes you drilled previously in the other short end of the enclosure and install the lid with the 4 screws that came with it.

Plug in a PC style headset to the two 1/8" jacks on one end of the enclosure and plug the cable from the other end into the radio. Turn on the radio and select a quiet simplex frequency and make a test transmission giving your call sign. The PTT should put the radio into transmit mode and you should be able to hear background noise in the earphone of the headset. You may have to turn down the squelch to hear this. If you have another radio, turn it to the same frequency as the hand held and make another short transmission with the Bao-Feng. Someone listening to the second radio should hear your transmission and be able to give you a signal check. If so, and the audio quality is satisfactory for you, you are done. If not, but the PTT function is OK and you hear the other parties signal in the earphone of the headset, the problem

probably is the PC headset itself. Try a different one and repeat the tests.

This headset adaptor will work with the Bao-Feng UV-5R and also should be completely compatible with any Kenwood HT that uses the same speaker-mic circuit. It will also apparently work with any Wouxun HT that uses the same speaker-mic connectors. Enjoy and 73, Geoff

Dear Bruce,

By all means, feel free to do both. You may reprint the article and I would greatly appreciate it if you would include a link to my web site. Be aware that my web site has moved this month to a new host and so please make sure that the URL is: www.n1gy.com and not the old URL which began: mysite.verizon.net/. The old site has been removed and no longer exists. For those who do not want to go DIY, I do sell the adaptors for a nominal sum of \$30.00. That price includes a known good "earhook" headset that resembles a similar unit from MFJ but has a much sleeker ear hook. I also include a foam windbreak for the mic element in the package. The adaptor has a belt clip that I obtain from a manufacturer of firearm holsters here in Florida.

By the way, that same adaptor and headset combo also works with Kenwood HTs that use the same 2-plug set-up. Please send me a copy of the newsletter via email if you can.

73,
Geoff Haines, N1GY

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Ham Cram: Good for amateur radio or no?

Contributed by KB6NU

I've been teaching one-day Tech classes, often referred to as "ham cram" classes for several years now. As a result, a couple hundred people now have amateur radio licenses. I'm proud of that, but sometimes a doubt or two creeps in. The doubts come from whether or not I'm teaching the students enough.

I also sometimes think about whether or not, my No-Nonsense study guides (www.kb6nu.com/tech-manual) should have more technical content. Recently on my blog (www.kb6nu.com), I've been posting sections of the next edition of my No-Nonsense, Technician Class License Study Guide. One comment reads,

"Oh my, now I see why my beloved USA is falling behind in math/technology/university on the world stage. Lack of rigor brings down real world knowledge and this sad trend plagues our country at every level. Your book helps students pass the exam but not learn proper physics."

The commenter is right about my study guides not trying to teach students about math or physics. There are many other books out there that do that. I disagree, though, that my study guides and my one-day classes are part of a "sad trend."

For one thing, an amateur radio license is not a degree in electrical engineering. Not only that, the Technician Class license is the very first rung on the amateur radio ladder. So, the question is how much knowledge should we require of someone just starting out in our hobby/service?

Secondly, I always stress that an amateur radio license is really a license to learn, and getting a Tech license is only the first step in a lifelong learning journey. I've been a ham a long time, and I'm constantly learning new things. And, I'm learning them because I have an amateur radio license. Without the privileges that my license gives me, I wouldn't be able to do the things I'm doing to learn them.

I sometimes regret that I can't teach people more during my one-day classes, but when

you get right down to it, there's only so much you can expect. I know that a lot of my students have gone on to get General Class and Extra Class licenses and have turned in to great amateur radio operators. Presumably, they've learned a lot in the process.

Having said all that, I'm curious as to what you think about this? Are ham cram classes good for amateur radio? If not, what else should we be doing to help people get involved and enjoy amateur radio?

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When he's not teaching class, Dan, KB6NU enjoys working CW on the HF bands and building kits. For more information about his operating activities and his "No-Nonsense" series of amateur radio license study guides, go to KB6NU.Com or e-mail cwgeek@kb6nu.com.



MARA's New KS1R.org Web Presence!!!

By John Goran, K1JJS

Early last year, MARA members voted to stop paying for web service, and move the club web site to the server farm at Dave Hawke's (KQ1L) home in Augusta. Well, this happened, and that happened, and Dave became tied up at work, involved in a major system upgrade.

Finally, this past fall, Dave and I got a new Drupal server running, and copied the existing web site over to this server at his site. Dave has a number of amateur radio

servers at his farm, all of which are running Wordpress. He was insistent that we change our site over to Wordpress, so he would have a common operating system and common web site software on all his servers. He procured a new server for MARA, loaded a new solid state hard drive with Windows Server 2003 R2 Enterprise, loaded Wordpress, and off we went getting data and files loaded.

Thanks to several club members, information is slowly getting posted on the new site.

The site is a work in progress. There is a lot of data and archives to move over and/or link to. If you are looking for something that was on the old site, please get in touch with me, as the old server is still intact at my home in Freeport. We can easily get it running and extract whatever is wanted.

Thanks go to Dave KQ1L; his many man hours, servers, high speed internet access, hard drives, electricity, backup power, and everything else that keeps all these servers running for the many amateur radio clubs and organizations. None of these organizations are charged for this service. It is all provided by the generosity of Dave KQ1L.

73, John, K1JJS



Some interesting Ham Related websites you may want to check out.

- Coax Cable comparison
<http://www.on4sh.be/ham/coax/>
- Slim-Jim 2M Antenna
http://ee.washington.edu/circuit_archive/text/fn18/antenna/

Cheap yagi antennas

<http://www.fredspinner.com/WOFMS/CheapYagi/vjbcy.html>

Android APRS reporting tool

<http://APRSdroid.org>

DX Cluster for Androids

<http://www.dxzone.com/cgi-bin/dir/jump2.cgi?ID=24379>

D-RATS

<http://d-rats.danplanet.com>

D-Star TV

<http://www.dxzone.com/dx18258/dstar-tv.html>

Internet Remote Base WebSDR radio 160, 40 and 20

<http://www.w4ng.com/>

Win APRS

<http://www.winaprs.com/>



**IF YOU FIND
SOMEONE
INTERESTED IN
AMATEUR RADIO,
HELP THEM GET
INTO IT!**

