

Zero Beat



Hampden County Radio Association

December 2012

The Barefoot DXer



A while ago, I wrote a short article for ZB concentrating on my introduction to the hobby and the influence that my unfulfilled boyhood dreams concerning ham radio have had on my evolution as an amateur radio enthusiast. Since March of 2010, I have spent a substantial portion of my free time methodically locating,

working and logging every DXCC entity possible using the phone and CW modes. So, I must admit to being an unabashed chaser of DX, an unapologetic collector of ARRL DXCC “paper” and an enthusiastic proponent of the CW mode. For no other reason than the challenge my quest has always been to complete the requirements for the 5BDXCC award using a maximum of 100 watts of power, or running “barefoot”.

Now I have 81 toward the completion of 80 meter DXCC, which will be my fifth band, I find myself once again learning the mysteries of yet another amateur radio band. With the mix of location, equipment, antennas and propagation as it is at my QTH, I am anticipating slimmer pickings as we enter deeper into the winter DX season, unless the propagation gods proffer a new mix of entities to the winter openings. So, in the spirit of ham radio I offer to you a couple of observations and insights gained over the last few months about the 80 meter band.

The first item you definitely need is a proper 80 meter antenna which may come in the form of a trapped or

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monoband vertical, or if economy is important, will almost certainly be a horizontally polarized wire aerial of some configuration cut to be resonant on the segment of the 80 meter band that you intend on concentrating your DX efforts and hopefully tunable across the entire band with the use of a proper transmatch. There are any number of geometric configurations of single and multiple wire loops and phased loops, as well as inverted V's in use today because they seem to attenuate more of the natural and manmade noise present year round on the 80 meter band. I would encourage you to look deeper into these configurations and if time permits fabricate and place one in your antenna farm.

I chose to put up an Alpha-Delta 80 DX dipole in spite of the fact that dipoles are more prone to picking up noise because it was more expedient. Thanks to the good services of “Dead Eye” Jim KK1W and his “magic air gun” one shot over each of the anchor trees put the halyards in place and up the dipole went to 50 feet or so. A quick check for resonance and SWR using an MFJ 269 analyzer and a final check across the band using the ICOM 756 Pro II transceivers internal tuner gave proof that the antenna was tunable across the 80 meter CW segment on up through the DX window. Oh, by the way, it does not hurt matters to have luckily chosen two anchor trees that present the aerials' lobes in a direction conducive to decent signal transmission and receipt.

The second item or tool you should acquire is a copy of ON4Un's “Low-Band DXing” authored by John Devoldere and published by the ARRL. This rather dauntingly thick book, now in its fifth edition, is the acknowledged bible of low band operation. Everything that you need to know about low band antenna theory, design, construction and analyses, as well as low band propagation from the very basic to the most advanced is yours for the reading. Happy holidays and good DX to all, I hope to hear on the low bands this winter season.

73, Marty, W1MJB



FROM THE SHACK

Holiday Party - December 10th

If you're planning on going—and you haven't bought your ticket yet—you're almost out of time. Don't miss out on a chance to spend a fun evening with your ham friends from both MTARA and HCRA this holiday season. It isn't possible for us to sell tickets at the door because we need to provide the restaurant with a head count a week prior to the party. If you still want to go here's what you need to do:

Contact either me or Marty/W1MJB and let of us know you will be attending. We will add your name to the list and make sure there's food for you when you get there! You can contact us via the links on the website or call me directly at 413.237.4666. At this point in time there isn't any other way. We don't want anyone to miss out so get it done now!

DON'T SEND CHECKS TO THE PO BOX!

It is too late for that and it may not be checked in time for the party. Call us instead and we will make it happen for you. More info on the party by clicking [here!](#)

ONE MORE REMINDER...

There is no regular club meeting in December. This was mentioned in last month's "from the shack" but it bears repeating. Instead of the meeting we're having our gala Holiday Party event—that's a good trade-off! If you show up the first Friday of December for a meeting and we're not there, don't say you weren't warned!

Are you ready for an ARRL 10 Meter Contest Challenge?

Earlier this month we posted the 2012 challenge goal of 100K points. Make or exceed the goal and you will receive a Dunkin' Donuts gift card for your efforts. Why are we doing this? Because we want YOU to be on the air (QRV) and having fun while we can still enjoy the Cycle 24 peak. Ten meters has been open a lot over the last few weeks and we all have our fingers crossed it will be hopping on December 10th. You can find more information about how to operate, the 2012 rules, the 2012 challenge and past scores simply by clicking the hot links.

The 10 meter contest is a great way to introduce new or inexperienced operators into HF operating and/or contesting. It offers both voice or CW so new ops can try

a different modes if they so desire. Adding to the fun is all our individual scores count as a club score—how cool is that? In order to get new folks on the air we're looking for folks willing to open their home station to visiting (guest) operators. Please comment below if you have time and station resources to help someone get excited about HF! It need not be for the entire contest. Even if you only host for a few hours Saturday or Sunday afternoon think what that means to someone that hasn't had the opportunity to play radio on HF, or may not even have an HF station. Those few hours of your time could make a huge difference in someone's amateur radio excitement for years to come.

Putting my station where my mouth is I will be opening my station for guest ops throughout the contest. If you would like to spend some time on the air using our club call WB1Z from my shack drop me a note so I can get you on the schedule. The station is competitive with an Icom Pro-2, amp and beam antenna. Come on over, I guarantee you'll have some fun and kick some contest butt at the same time! And if the band isn't open we can do what all good hams

do—shoot the bull, find something else to play with or take a break and still have fun.

Notes from the cluster:

Cycle 24 is still working! I just finished up a weekend of contesting in the CQWW-CW event this past weekend. The bands were hopping. 10 meters was open quite a bit, and early

in the morning. 15 meters was just amazing! I ran QRP (5 watts) and worked 99 countries over the weekend. Lots of DX including Japan, Micronesia, Guam, Asiatic Russia and more, all with only 5 watts! Like everything else, Cycle 24 will soon start a downturn. Don't miss your chance to have fun on the HF bands. Get on the air and operate. Whether in a contest, a rag chew, casual DX'ing it makes no difference. It's all good and if you miss it another eleven years will have to pass to get back to where we are today. Don't be an "armchair amateur"—get in front of the rig and have fun!

Field Day Planning has begun. It is in your hands! If you have some thoughts about what we should (or shouldn't) do for FD now is your chance to speak up. For years now our FD has been one of HCRA's "Big Events" and attracts more members than anything except perhaps the Holiday Party. If you've been attending you know why. If you haven't been attending we want to know why. What would excite YOU enough to participate? Have ideas, that's great—just be prepared to back them up with some 'sweat equity' to make it happen :)

Wishing everyone a safe and happy holiday season, 73...

Jim/KK1W



ARRL 10 Meter Contest December 8-9

December is right around the corner and that means it's time for the ARRL 10 Meter Contest. Every year HCRA participates in this contest as a club. What does that mean you ask? It means when individuals submit their score, they write "Hampden County Radio Association" into the club field of their Cabrillo file and the combined scores of members are tallied and compared against other clubs competing in the category. Here are 10 reasons why you should plan on operating in the 10m contest this year.

- It's Fun!
 - Technicians have SSB privileges on a slice of the band
 - A 10 meter antenna is easy to make
 - A 10 meter antenna is short and easy to hang up
 - Propagation on 10 meters has been great over the last couple weeks
 - You can operate both CW and SSB in this contest
 - The exchange is easy
 - If propagation remains good, you might be able to add some new countries
 - It's fun to hear other HCRA members working stations
 - It's fun to see if you can beat KB1NWH in the pileup!
I hope to hear everyone in the contest that weekend.
- Matt, W1MSW



Hampden County Radio Association and the Mount Tom Amateur Repeater Association



Holiday Party



Monday, December 10, 2012

The Steaming Tender Restaurant - Palmer, Mass.

CONTACT FOR TICKETS & INFORMATION:

HCRA: Marty Bowen – W1MJB w1mjb@arri.net

MTARA: Dianne Shippee – KB1KST kb1kst@netzero.net

Local happenings

(All times are local time)

Sundays: 0845: Western Mass Emergency Net 146.94, PL 127.3 - W1TOM/R

First Monday: Southwick Regional RACES Drill, 1845, 146.49 Simplex

Mondays: 1930: HCRA 10m Net 28.375

Tuesdays: 1930-2000: 146.94, PL 127.3 - W1TOM/R - Hampshire County Emergency Net

Wednesdays: 1930: MTARA Info net 146.94, PL 127.3 - W1TOM/R - includes NTS Net

2000: MTARA Swap net: 146.94, PL 127.3 - W1TOM/R

2000: MTARA Simplex Net - starts on 146.94 - PL 127.3, then goes to 146.42 direct (simplex) Usually starts immediately following the swap net.

Thursdays: 2100: Weather Net (Roger, K1PAI Net Control), 1st Thursday of every month: 147.090 MHz, All other Thursdays: 147.000, PL 127.3 - W1TOM/R

Fridays: 1200: BB's (Brown Baggers Luncheon)

Common Ground Restaurant

25 Park Avenue

West Springfield, MA 01089

Expect between 6 and 12 every Friday. Good food, great company!

Club Meetings & VE Sessions

1st Friday of the month 7:30 PM, HCRA Club Meeting, Holyoke Hospital Auxiliary Conference Center, 575 Beech St. Holyoke MA, 01040 (no meetings held in July or August) <http://www.hcra.org/meeting-location/>

3rd Friday of the month 7:30 PM, MTARA Club meeting, Red Cross building 506 Cottage St, SPFLD, MA (no meetings held in July or August)

4th Friday of the month 6:00 PM, Technician, General, and Extra Class License Exams, Holyoke Hospital Auxiliary Conference Center, 575 Beech Street, Holyoke, MA. Hosted by the Western Mass VE Team (WMVET). Contact: David Cote, w1fab@arrl.net

Third Monday of the month 7:00 PM, Franklin County Amateur Radio Club meeting, Greenfield High School (no meetings held in July or August) Meeting Apr 23, 2012, to avoid holidays)

4th Monday of February, May, August, November 7:00 PM, FCARC VE Exams, Unitarian Church, Main Street, Northfield

Visit our website at <http://www.hcra.org>. We are also on Facebook Groups: *Hampden County Radio Association* and *SOTAJerks*. Join us!

Join the ARRL or renew your membership!

ARRL members enjoy:

- QST Magazine
- Members-Only Web Services
- Technical Information Service
- Member Discounts
- Outgoing QSL Service
- Continuing Education
- ARRL as an Advocate
- Regulatory Information Branch
- Public Relations for Amateur Radio
- ARRL Field Organization
- ARRL-sponsored contests
- Operating Awards
- Local Clubs
- Amateur Radio Emergency Service
- Hamfests and Conventions
- Volunteer Examiner Coordinator Program

<http://www.arrl.org/membership>



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VE Session Team Liaison, Dave Cote W1FAB (413) 575-2950

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Building a portable 12 Volt DC power source

If you're like me, you not only enjoy your radios in the comfort of your shack, but like to go outside to "play radio" in events such as the upcoming 2013 ARRL January VHF Contest and public service events.

The components of my 12 Volt DC portable power source include:

1. Four Anderson Powerpoles – two red, two black, with 45AMP connectors.
2. 10 gage red/black zip-cord power wire
3. Heat-shrink tubing of various sizes.
4. Two battery post terminals, for the AGM 12 Volt battery.
5. One 4-pole snap-in panel mount for 2 sets of Anderson Powerpoles.
6. Two Velcro Velstraps – 3ft X 2inches
7. One 12 Volt (AGM) vehicle battery.
8. One full-sized battery box.



The first thing I did was to turn over the battery box. Then with my Dremel Tool and multipurpose cutting bit, I cut out two thin rectangle holes just big enough to pass one of the Velstraps through

[Picture A]. I passed the Velstrap out one of the holes, across the underside of the box, then back into the box via the other hole [Picture B]. This Velstrap will later be used to hold the battery in place.

I then cut a square hole measuring 1.00 inch by 1.25 inches in the top of the battery box,. This hole will be used as a place to insert the 4-pole snap-in panel mount to hold the Anderson Powerpoles [Picture I].

The wiring came next. I crimped a 45 AMP connector onto each of the four wire leads of a 10 gauge red/black power wire. Then, keeping with ARES/RACES standard orientation, I assembled the red and black connectors (tongue down, hood up, red on the left, black on the right as viewed opposite the wire side). I then joined the two pairs together, one set over the other. NOTE: When using large gauge wire, it's easier to put the housings together before putting the connectors in.

Once the four connector housings were together, I inserted the wire lead's connectors into their corresponding connector housings. Red into red, black into black. Using the proper sized heat-shrink tubing, I fed both sets of power cables through it, then brought the heat-shrink tubing all the way up

until it met the base of the Powerpole connectors. I applied heat and shrank the tubing in place.

Using a sharp knife, I then split the ends of the zip-cords and separated the red side from the black side all the way up till it reached the heat-shrink tubing near the Powerpole connectors. I then fed both red wire leads into one length of heat-shrink tubing, then both black wire leads into a separate length of heat-shrink tubing. On both sets of wire leads, I left a generous amount of wire extending beyond the heat-shrink tubing. I applied heat and shrank each of the tubes around their respective wire lead sets.

Powerpole connectors on, power-leads separated then heat-shrunk together by polarity, it was time to insert the four-gang of Powerpole connectors into the 4-pole snap-in panel. The Powerpole connectors simply slide in to the 4-pole snap-in panel and are held in place by a retaining pin [Picture II].



Were almost home, just a few more steps: Holding the lid at the distance I wanted it to be from the bottom of the box, I measured out the length the wire leads from the 4-pole snap-in panel to the battery posts needed to be, then cut off the excess wire. Now cut to length, I inserted both red and black sets of wire leads into a single heat-shrink tubing. I left enough of the wire leads exposed in order for me to later attach these wire leads to the battery terminals. I then applied heat and shrank the tubing. Once the heat-shrink tubing cooled, to minimize movement of the wiring harness I secured it to the top of the box. After stripping away enough of the outer coating, I attached each set of wire leads to their respective battery terminals and attached the battery terminals to the battery posts [Picture III].

I placed the top onto the bottom of the battery box and secured it using the last Velstrap...Done! I now had a safe, secure



and ARES/RACES standard orientation compliant source of 12 Volt DC power.

It's my hope that this article, by showing you how with readily available components and it's quick and easy assembly, you'll be motivated to create your own portable 12 Volt DC power source.

After all, the bottom line is this: You never know when

that next event will cause the lose of power to your shack, and there's no guarantee there'll be commercial power available at the places you go to, or get called to. A piece of equipment like this will give you one more way to be ready to get on, and stay on the air.

73, Rich – N1KXR

This KX3 could be YOURS!

We're talking about the *exact* [Elecraft KX3](#) in the photograph, serial # 2261. Purchase a KX3 raffle ticket or two at the Holiday Party or at the next HCRA meeting!

For a \$10 donation to HCRA you get a chance to win this exciting new HF transceiver valued at \$1000. Just recently it topped [Sherwood's](#) list for best receiver performance but now has slipped to second place behind a \$20,000 rig. Twelve watts, all HF bands and runs on 8 AA batteries – how cool is that? Only 250 tickets will be sold and the drawing will be held March 1st, 2013 (or earlier if we sell all the tickets). Tickets are selling quickly – don't miss out on a golden opportunity to own a world class, ultra portable, HF transceiver..

A few of our members own KX3s and they are indeed a nice toy. #2261 will be on display at the Holiday Party. Thanks as always for your support of HCRA, our raffles and our events!



Directions to Holiday Party at Steaming Tender



From the MA Turnpike (Rt. 90): Take Palmer exit #8- Turn right after toll booths, go through one set of lights, take left at next set of lights (Main Street, Palmer). Then go over bridge and turn right (Depot Street). Proceed to parking are in front of restaurant.

From Eastern MA (Rt. 20): Go through set of lights at Palmer Post Office on part Street (Route 20). At next set of lights take left (Getty Station), and another left at next set of lights (Main Street, Palmer). Then go over bridge and turn right (Depot Street). Proceed to parking are in front of restaurant.

From Western MA (Rt. 20): Bear right at set of lights (Main Street, Palmer – Intersection of Rt. 20 and Rt. 181). Go through two more set of lights and over a bridge. Then go over bridge and turn right (Depot Street). Proceed to parking are in front of restaurant.

GPS Coordinates Lat: 42.155721 Long: 72.328899

More “Why We Climb Mountains...”

