

**Hampden
County
Radio
Association**



DECEMBER 2008

ZERO BEAT

<http://www.hcra.org>

The Annual HCRA Holiday Party

When: Monday, December 8th

Cocktails at 6:00 PM – Dinner at 7:00 PM

Where: Steaming Tender Restaurant, 28 Depot Street, Palmer, MA 01069

Menu: *Entrée choices* (choose 1)

- 10oz Roast Prime Rib of Beef Au Jus
 - Chicken with Wild Mushrooms
 - Baked Scrod New England Style
- Cake and Ice Cream w/coffee or tea

Cost: HCRA Member \$15/person, Non-member \$25/person

Please mail your menu choice, attendee(s) and your check to: HCRA, P.O. Box 562, Agawam, MA 01001

This event is a major effort to provide a fantastic Holiday Party for our club. Over 58 People are attending as of 11/20.

Drinks, except for water and coffee/tea not included.

Join your friends for a relaxing evening at the Steaming Tender Restaurant in Palmer, MA. Absorb the charm of a turn of the century railroad station while savoring award winning cuisine with your best friends from HCRA. The perfect way to escape from the holiday rush!



The Balanced Line

by Jim, K1JAW



OK, this month we are discussing balanced line. Your 300 ohm TV twin lead is balanced line and I use it on my QRP rig. Window line is also balanced (450 ohm) and great for making an all band doublet (*which is a dipole that can be used on many bands, not just the odd or even harmonics*). Open wire is the cat's meow (400-600 ohm) depending on spacing. These were the mainstay before the 50's; came on a roll with paper between each layer; wires were separated by an insulator every six inches; and tangled like you wouldn't believe when you took it down - - Loss factor incredibly low. You can make these at home!! (*You heard this here first; Save your BIC pens for spacers, they work great.*)

Today we mostly use the window line. It is easy to put up, and take down. The losses with high SWR are insignificant compared to Coax, and the cost is much less than Coax. Perfect right? Almost! You cannot run balanced line next to a metal object like your tower, downspout, or next to your water pipe in the basement. It cannot be buried, it may bring RF problems into your shack, & losses go up when wet (*about .6db and only mentioned for information - a non issue in my book!*). A good external tuner is required, and grounding can be a little trickier. All of these are manageable. (*STOP! If you are about to purchase a tuner, do NOT purchase one with an internal balun - Next month's discussion*)

As a rule of thumb, you should keep your balanced line 5 times (some folks say 3-4x) the width of your line away from your tower, downspout or other metal object. If your line is one inch; keep it five inches away. (*All the older gentlemen/ladies will remember that we even used standoffs for the TV 300 ohm on the mast and the house before cable & satellite appeared.*) Do not be overly concerned when it crosses metal at a right angle; just keep some space: two inches is fine. Keep all curves reasonable and no 90 degree bends. Never create a coil with balanced line; cut off the excess.

From the antenna, twist the balanced line once for every foot or two to minimize swaying in a strong wind, and snow accumulation.. Do not run the wire across the back of your equipment; bring it along the ceiling and drop it down to your tuner. *or*

Purchase a 1:1 (*yes 1:1 not a 4:1*) current isolator/choke balun for a transition from balanced line to coax between the outside of your house, and into the shack (*my installation*). Keep this high quality coax as short as possible. That conversion balun usually has a grounding lug which should go directly to your earth ground with your other ground connections. (*In all cases, you should have dedicated lightning protection for all of your cables coming into your home!!!! Don't rely on this balun!*) *or*

Take two pieces of coax long enough to reach from the outside of you house to the tuner. Solder the shields at both ends and connect the balanced line to the two center conductors outside (*seal from the weather!*); and attach the two center conductors of the coax inside to your tuner balanced connectors. Ground the shields to your tuner only. (*Some say ground at both ends but unless you have a well designed ground system, this is an invitation to a ground loop*). This trick may also be used for towers & drainpipes, however, it will have some effect on the antenna on some bands if it gets too long, and will have a higher loss than the balanced line that it replaced - keep it short!.

Balanced line is not the end-all of feed lines but price performance is up there near the top. If you are not sure of what bands you would like to operate, consider a doublet fed with window line. A good external tuner is a must, and a Balanced Line Tuner (BLT) is the best. This is a great experimenter's antenna...and frugal (cheap) too!!!

This month's website suggestion: (at the top in red " choosing the correct balun")

<http://www.dxengineering.com/Products.asp?ID=50&SecID=10&DeptID=9>

UNDERSTANDING WINTER WEATHER TERMS

KEEP ALERT FOR WINTER WEATHER WARNINGS...WATCHES AND ADVISORIES...AS WELL AS OTHER TERMS USED BY YOUR NATIONAL WEATHER SERVICE.

KEEP AHEAD OF LIFE-THREATENING WINTER WEATHER THIS SEASON.LEARN WHAT THE WEATHER TERMS MEAN...AND HOW YOU SHOULD ACT IN RESPONSE TO THEM.

A "WINTER STORM WATCH" MEANS SEVERE WINTER WEATHER MAY AFFECT YOUR AREA. PAY CLOSE ATTENTION TO WEATHER FORECASTS...STATEMENTS AND ADVISORIES...AND BE READY TO TAKE PRECAUTIONARY MEASURES.

BY DEFINITION...A WINTER STORM WATCH MEANS THAT 7 OR MORE INCHES OF SNOW MAY ACCUMULATE DURING A 24 HOUR PERIOD. A WINTER STORM WATCH MAY ALSO BE ISSUED FOR THE POSSIBILITY OF BLIZZARD CONDITIONS...A SIGNIFICANT ICE STORM OR A COMBINATION OF THE ABOVE CONDITIONS.

WHEN A "WINTER STORM WARNING" IS ISSUED...SEVERE WINTER WEATHER CONDITIONS ARE IMMINENT...AND MAY POSE A THREAT TO LIFE OR PROPERTY.

"BLIZZARD WARNINGS" ARE ISSUED WHEN SUSTAINED WIND SPEEDS...OR FREQUENT GUSTS OF AT LEAST 35 MILES PER HOUR...ACCOMPANY CONSIDERABLE AMOUNTS OF FALLING AND/OR BLOWING SNOW...AND THE VISIBILITY IS OFTEN LESS THAN ONE QUARTER OF A MILE.

"HIGH WIND WARNINGS" ARE ISSUED WHEN WINDS OF AT LEAST 40 MILES AN HOUR ARE EXPECTED TO LAST FOR A MINIMUM OF ONE HOUR OR GUSTS OF AT LEAST 58 MILES AN HOUR MAY OCCUR.

"WIND CHILL WARNINGS" ARE ISSUED WHEN WIND CHILLS OF MINUS 40 DEGREES OR LOWER ARE IMMINENT. WIND CHILL ADVISORIES APPLY TO WIND CHILLS OF -25 TO -40 DEGREES.

IN ADDITION TO WATCHES AND WARNINGS..YOUR NATIONAL WEATHER SERVICE USES OTHER TERMS TO ALERT THE PUBLIC TO THE THREAT OF HAZARDOUS WEATHER.

"FREEZING RAIN OR FREEZING DRIZZLE" INDICATES RAIN OR DRIZZLE THAT FREEZES AS IT STRIKES THE GROUND AND OTHER SURFACES AND FORMS A COATING OF ICE.

"SNOW SQUALLS" ARE BRIEF...BUT INTENSE PERIODS OF SNOW...FREQUENTLY ACCOMPANIED BY STRONG AND GUSTY WINDS.

WINTER WEATHER ADVISORIES WILL HIGHLIGHT DIFFICULT WEATHER CONDITIONS THAT WILL HAVE AN IMPACT ON MOTORISTS, OUTDOOR ACTIVITIES OR PUBLIC EVENTS. THESE ADVISORIES WILL BE ISSUED FOR SNOW, BLOWING SNOW, FREEZING RAIN OR DRIZZLE, BLOWING SNOW, FOG AND WIND CHILL.

"WIND CHILL" IS THE EFFECT OF WIND AND TEMPERATURES ON THE RATE OF HEAT LOSS TO THE HUMAN BODY. IT INDICATES THE DANGER OF EXPOSURE TO THE MIXTURE OF WINDS AND COLD WEATHER.

KEEP POSTED ON THE LATEST WEATHER INFORMATION. LISTEN TO YOUR FAVORITE RADIO OR TV STATION...OR CABLE TV...OR NOAA WEATHER RADIO AND KEEP ALERT FOR THESE WINTER WEATHER TERMS FROM YOUR NATIONAL WEATHER SERVICE.

Eric NIQKO

ARRL 10 Meter Contest

Here's a brief tutorial on this fun contest

Hey gang,

The ARRL Ten Meter contest starts Friday at 7:00PM local time (December 12th). If you have a chance to get on I hope you make a few contacts. It looks like the sunspot minimum has passed so we 'should' have better propagation than last year. Even without sunspots the contest creates so much more activity you will be surprised at the number of stations you will hear.

The fun part of this contest is you can play and send in your own personal score as well as participate as a club. All you need to do is put "Hampden County Radio Assn" in the club line on your entry form. You get your score and the club score is the combination of everyone that sends in a log with HCRA identified.

[New for 2008! HCRA is offering certificates for as little as five contacts made in the 2008 contest!](#)

The award will be made with four endorsements.

Bronze for five Q's

Silver for 25 Q's

Gold for 50 Q's

Platinum for 100 Q's

An endorsement for at least one CW contact during the contest will be added.

So, you are new to contesting and want to give it a try. This is the perfect contest for starting out. The band is not crowded, the pace is relatively slow and it's unlikely the band will be open for more than 10 to 12 hours out of the possible 48 hours. So now we know it won't be stressful, lets see how easy it is.

First off, it is worth a glance at the rules. Click [here](#) for the latest rules and take a few minutes to familiarize yourself with them. It's not complicated, but can be a bit daunting when you first look at them.

Now that you've read them, lets see how easy it actually is. The whole idea is to work (talk to) as many different stations as possible on the 10 meter band. You get points for each station, each state (or country) and each mode (CW or phone). When all is said and done you add up all your QSO points (1 for phone contacts, 2 for CW), add up your states & countries and multiply them. That's your score. There are additional QSO points for different power levels and station types. I'm guessing most of us will be operating low power (up to 100 watts), and as a single operator. The contest runs for 48 hours, starting at 7:00 PM Friday evening and ending at 7:00 PM Sunday evening.

Where to operate? Most of the activity will be on phone, between 28.300 and 28.500 MHz. If the band gets really busy and crowded

activity will creep higher than 28.500 - not likely unless the band opens up and DX starts rolling in! If you want to take a stab at CW then look between 28.000 and 28.060.

Who do you talk to and what do you say? The best way to start is to tune your rig to 28.300 and start tuning slowly upward. You will probably come across some loud stations calling CQ. These are the dedicated contesters and the best ones to make your first contacts as they have good stations and are competent operators. Here's an example of what your first QSO might sound like:

Sending station: CQ CQ CQ, this is K1KI calling CQ contest, CQ CQ CQ contest, QRZ

You transmit your call: KK1W

Sending station: KK1W you are 59, CT (charlie tango)

You transmit: K1KI you are 59, MA (mike alpha).

Sending station: Thanks!, QRZ contest...

And then the next station calls K1KI

That is the exchange. Signal strength (usually 59, even if it's not!) and your state. If you're not sure of the state be sure you ask the station to repeat so you don't make a mistake. That's all there is to it, write it down in your log and start tuning for the next station. Remember as you go up in the band if you are a Technician or Tech Plus you can only go as high as 28.500!

As you log more contacts, especially if the band is busy it gets more difficult to remember if you have worked a station before. You can manually keep a 'dupe sheet' or resort to using a logging program on your computer. There are many out there but a really good one, and free too, is N1MM logger. Take a look at: <http://www.n1mm.com/>. Using a logging program makes the contest fun and easy, and really takes the sting out of submitting your log when the contest is over. You can export your log to a 'Cabrillo' file and simply email it to ARRL when you're done. For some people using a contest logger can be addictive, kind of like a video game.

So that's it - not hard, lots of fun and a good way to spend time this weekend. You really didn't want to go out and shovel snow or go to the mall, did you?

So have fun, send in your log when you're done and don't forget to put 'Hampden County Radio Assn' in the club field when you're done. Oh, please send me a copy of your score so I can post it on the HCRA web site too. Click the links at the top of the page to see how our club has done in prior years: If you have any questions don't hesitate to drop me an email at: <mailto:kk1w@arrl.net>

Thanks as always for your support of HCRA and don't forget, its all about the fun!

'73...Jim, KK1W

From the Shack...



Will you be at the Holiday Party?

HCRA embarks on a different track for our annual Holiday Party this year. Instead of crowding everyone into our regular meeting room and trucking in catered food in aluminum foil pans we have elected to move the site to a real restaurant. Our choice of venue is the 'Steaming Tender Restaurant' in the old railroad depot in Palmer, MA. The entire restaurant will be ours! A choice of three delicious entrees complete with appetizers and dessert and of course the company of all your friends at HCRA. **If you haven't contacted John, Kx1x about going you can still make the cut-off date of December 5th if you call right now. Operators are standing by!**

ARRL 10 Meter Contest offers HCRA fun!

Have you tried HF yet? Ever work a contest? Would you like your effort to be yours and contribute to our overall club store? You can do this and more starting December 13th. The ARRL 10 Meter event can be anything you want it to be. The best thing about this contest is it allows us, HCRA members, to participate in an operating event from home, operate how and when we want, but still have our work become part of an overall club entry. The 10M contest is a super way to get either new (or relatively inexperienced) hams used to HF operation. No matter how you look at it this December weekend can offer a little something for just about every type of ham out there. The addition of some nice 'wallpaper' for as little as 5 contacts is just icing on the cake!

The 10 Meter contest is also a nice time to open up your shack for some guest operators. A lot of fun can be had and the chance for someone that doesn't have an HF station at home to operate is priceless! I've heard there may be a few 'wagers' out there about individual scores but of course HCRA in now way would ever condone such conduct!

So mark your calendar, set aside a little time for fun, make a CW contact or two but most of all ... Have some fun!!!

Kx9x comes to HCRA in January

Our first meeting of the New Year features Sean Kutzko, KX9X. Sean is the Contest Branch Manager for ARRL and a extremely active ham in many facets of our great hobby. Here's just a little of his 'ham radio history' he will bring to us on January 2nd.

My primary interests are HF DX'ing, HF and VHF contesting, and VHF weak signal work. I enjoy long-haul QSO's on 2m via meteor scatter, and enjoy 6 meters immensely. I have also operated from Jamaica as 6Y7M during the 1994 WPX CW contest, as well as from Antigua as V26NA during the ARRL DX CW contest in 1997.

Remember! There won't be a regular club meeting on December 5th!

Enjoy the holidays and see you at the Steaming Tender.

Jim, KK1W

Zero Beat Contributions: Anything of interest is welcome.

Please submit your ideas, articles and more to
wb1dby@comcast.net. Thank you,
Larry, WB1DBY, Zero Beat Editor

HCRA 10m Net

Join NCS, Tom Doyle (n1muv),
each Monday night at 7:30 PM (local) on

28.375 MHz

Get the latest local word, join good friends,
take part in good conversation each week!!!
Anyone can join in, don't be shy!!!

Have you tried IRLP yet?

IRLP is the Internet Radio Linking Project, connecting radios over the Internet. With your 2m radio, you make contacts all over the world. HCRA sponsors an IRLP node, in South Hadley, MA. It is there for your use, please give it a try (at least turn it on and listen) 146.46 simplex, 114.8hz PL Kx1x, Node #7270, South Hadley, MA.

For a list of IRLP nodes and other IRLP information, go to:
<http://www.irlp.net/>

WE NEED YOUR SUGGESTIONS

We are asking for your suggestions and ideas for future HCRA meetings. The recent success of HCRA has been, in part, because of its interesting and timely key speakers and topics.

If you can help, please contact Jim, KK1W at
kk1w@arrl.net or (413) 245-3228.

*Questions, Comments, and Suggestions
Can Be Directed To:*

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Let's Get on the Maker Bandwagon

By Dan Romanchik, KB6NU

About a week ago, I got an e-mail from a ham down in Texas who had attended the Maker Faire (makerfaire.com). "Makers" are people who love to tinker and make things. They even have their own magazine, *Make* (www.makezine.com).

He was amazed at the lack of any amateur radio content. He wrote, "The Maker Faire was unbelievable. Incredible stuff. Pedal powered carnival rides, robots, computer drive routers, kits. Outside of a table with Vectronics kit, and a license manual, and a QRP book, the only radio stuff was from a pirate radio group."

I'm kind of amazed at this as well. It just goes to show how disconnected amateur radio is getting from the mainstream. These are exactly the kind of people we want to get interested in amateur radio, yet there was no one there representing us.

Ham radio needs to be at these events and get plugged into the "maker community." The Faire has not yet released attendance figures for this particular Faire, but more than 65,000 people attended the Faire held in May 2008. Dayton, with its attendance of about 20,000, looks anemic by comparison.

I blogged about this back in May (<http://kb6nu.com/why-cant-dayton-be-more-like-the-maker-faire/>). One of the things I suggested then is moving Dayton to some place like Austin. Seriously, if you were a new, young ham, where would you rather go, Dayton, OH or Austin, TX? Let's be real here.

And can there be a worse place for an event than Hara Arena? The parking lot, where they hold the flea market looks like a mine field, and it usually rains, making the flea market a wet, unpleasant experience. Is it any wonder that fewer and fewer vendors choose to haul stuff out there? Some of us older hams might fondly reminisce about the bargain we found while traipsing around wearing a trash-bag poncho, but a story like that is not going to resonate with new hams.

Please don't get me wrong. I don't mean to badmouth the Dayton Amateur Radio Association or the Hamvention. I actually think that they do a great job, all things considered. I'm just pointing out that if ham radio wants to again be part of the mainstream, we have to get with the program. Unfortunately, that program probably won't be at the Hara Arena..

Ham radio has got to figure out how to latch onto the Maker phenomenon. At the very least, the ARRL should have a booth at the next one, and in addition to all the books and t-shirts, they need to come up with some kind of demo or display to attract makers into ham radio. I don't know what exactly, but I'm willing to start talking about it.

This phenomenon might also be a boon for clubs who hold hamfests. Just as the computer craze turned ham swaps into ham and computer swaps in the 80s, perhaps ham clubs could turn their hamfests into a combination hamfest and Maker Faire in their communities.

As I said earlier, Makers are exactly the kind of people we want in ham radio. Let's go out and get them.

When Dan's not pontificating about ham radio, you'll find him working CW on 40m, teaching ham classes, or running for the ARRL Board of Directors. Read more by going to www.kb6nu.com. Send e-mail to cwgeek@kb6nu.com.

Did you ever wonder how many Hams there are in Massachusetts?

As of November 16, 2008, the breakdown is as follows:

- Total number of Hams in Massachusetts: 14159.
- Percentage of Hams to the general population: 1.96.
- Rank out of 50 states: 18th.
- Number of Technician Class Operators: 5251.
- Number of Technician Plus Class Operators: 465 (No more being issued).
- Number of Novice Class Operators: 607 (No more being issued).
- Number of General Class Operators: 3292.
- Number of Advanced Class Operators: 1491 (No more being issued).
- Number of Extra Class Operators: 2796.
- Number of (registered) Amateur Radio Clubs in Massachusetts: 257.



The Hampden County Radio Association
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