

Zero Beat



Hampden County Radio Association

April 2012

HCRA Field Day Update

The field day co-chairs have had their first meeting and plans for the big June weekend are well under way. We will again be at Dufresne Park in Granby, but never known to leave well enough alone, there are some exciting changes in the works for this year.



We are still planning our regular 7A operation, but this year we will be erecting four towers, which is two fewer than last year. WHAT??? How are we going to do that? If you read the June 2010 QST article on the use of triplexers during field day, you will have a pretty good idea of how we plan on pulling it off. We have in our possession the first of two triplexers and testing is scheduled this month to make sure we don't run into any problems during the event. Three stations on one antenna and tower will be a great way to make Field Day more fun, safer and less exhausting for our setup and breakdown crews.

In an effort to help HCRA's official chef Jim – NN1Y continue to provide the club with his scrumptious meals, we have decided to rent the kitchen in the pavilion for Saturday. This will give us access to a refrigerator and stove, as well as a sink for washing dishes. We are looking forward to trying this out to see if the extra cost is worth the convenience of the amenities.

Ten meters has always had a presence at Field Day, but typically it's a small station that's not used much and sometimes has doubled as the alternative energy station.

With better propagation than last year, 10 meters will probably play a more important role at Field Day. There will be a separate 10-meter CW station and 10-meter SSB will be added onto one of the existing SSB or VHF stations.

Field Day is YOUR event, and we want everyone to have a chance to help out and to operate. Is there something specific you'd like to help with? Here are some areas available to our dedicated volunteers:

- Setup Crew
- Kitchen
- Station Housing
- Field Day Site Tour Guides
- Station Operators/Loggers
- Photographers/Videographers
- Field Day Message
- Message Handling
- Education Activity Leader
- Alternative Power Station
- Satellite QSO Station
- Breakdown Crew

We're really looking forward to a great weekend this June 22nd-24th and we want you to be part of the fun. If you have any questions or would like sign up for one of the positions listed above please contact Matt – W1MSW w1msw@arrl.net or Jim – KK1W kk1w@arrl.net



Local happenings

(All times are local time)

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

First Monday: RACES Drill, 1900, 146.91; 1930, 146.94; 1945, 146.985

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, Feeding Hills Congregational Church 21 N. Westfield St., Feeding Hills (no meetings held in July or August)

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

New England Flea Markets

15 April: Cambridge MA FLEA at MIT (Third Sunday April thru October)

28 Apr: Gales Ferry CT RASON Auction @ FireCo

4,5 May: Deerfield NH Nearfest XI @FG
08/12/12: NoBarc Hamfest 2012, sponsored by the Northern Berkshire Amateur Radio Club. www.near-fest.com

24 Aug/12: New England Division Convention, sponsored by the New England Division of the ARRL. www.boxboro.org/



Dust off that old key
or paddle and get
on the air!

HCRA Contact List

President, Jim Mullen KK1W (413) 237-4666
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At Large, Rich Wheeler N1KXR (413) 584-3372
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Skywarn Liaison, Eric Tuller N1QKO (413) 967-3869
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VE Session Coordinator, Dave Cote W1FAB (413) 575-2950
w1fab@arrl.net

FROM THE SHACK

KX3 Raffle Drawing—will it be held Friday night?

How do we know? We don't, but I would pretty much bet on it. There's only **six tickets** left to sell and I would guess they will be gone before our guest speaker starts his presentation! We're very close to having the KX3 in hand for the drawing. However, I'm not ready to place bets on it yet. Elecraft has started shipping KX3's; the first one left their facility on March 29th. We placed our order early (within hours of the December 27th announcement) however there were orders for hundreds of units placed that day. According to the Elecraft website it will take them a few weeks to catch up on the first day's orders.

We're so proud of our raffle we've even acquired a beautiful gold raffle drum for the drawing. Dave/AA1YW will certify all the tickets have been placed in the drum, and then we'll turn the crank a few thousand times and invite someone from the crowd to pull the lucky winner. It really could be you – wouldn't that be just too cool? Win or lose thanks to all that pitched in and supported this raffle. The proceeds will contribute to our expenses and events throughout the year! We couldn't have done it without your help and support.

Tonight's meeting – what does the Arduino have to say?

A few months ago we issued a challenge to our group to come up with an HCRA presentation based on the popular *Arduino* microcontroller. A number of our members have purchased the board (shown above)



including Juergen/DK1TM, Jeff/NT1K, Dave/W1FAB and I. Bob/NQ1C was the first to contact us and say yep, he could do it. Just exactly what will he be showing us? I don't know, but I'm sure it will be interesting and ham radio related. Bob is an active amateur and a skilled programmer, be sure to attend Friday's meeting and see what he's cooked up for us.

If any of our members have built some interesting circuits around the Arduino you're cordially invited to bring your project to tonight's meeting. We'll have time after the meeting for everyone to show off what they've done. It will be almost like a mini *Show & Tell*. No matter what, for a few dollars and a little time you could be doing the same, or at the very least solving some programming puzzles instead of the ones in the New York Times.

Be prepared to ask questions and even more importantly put forward ideas for other projects that would be fun to build and use. This is exactly what these meetings are



all about; getting together with our friends, having fun and learning new things – the very essence of why we're members of HCRA in the first place.

Loose Connections:

The purchase of the storage trailer was approved at the February meeting. We will be looking for a few volunteers to help outfit it. Would you like to help? Please contact

either Ed/KB1NWH or Jim/KK1W. It most likely will be on a weekend at Ed's QTH in Agawam.

Field Day is coming fast. We need to know what part you would like to play in the event this year. Will you be back doing the same thing as last year or do you want to try something new? We're right now in the planning stages; hearing from you early will

really help the process. Please contact Matt/W1MSW, Ed/KB1NWH, or Jim/KK1W – thanks!

This April is the 100th Anniversary of the sinking of the Titanic. There's a lot of radio history involved in the disaster and a number of special event stations including one right here in Springfield – W1MGY. More info at: <http://webpages.charter.net/kb1mu/Titanic/titanic.htm>.

New England's largest ham radio flea market comes to Deerfield, NH on May 4th & 5th. More info at: <http://www.near-fest.com/>.

We're still looking for a few active amateurs that would like to join the HCRA board of directors. Do you have what it takes to keep pushing HCRA forward through the 21st Century? Its fun, doesn't take a lot of your time and is immensely rewarding. If this sounds like the (non-paying) job for you talk to any of us at the next meeting.

'73... See you at the meeting!

Jim, KK1W

Membership Corner Matt Wilhelm, W1MSW

This month we introduce a new feature in Zero Beat: Membership Corner. Along with important news regarding membership, it will be a place to profile our members and highlight some of the fun things they're doing in the hobby. I will also be publishing any radio related news and accomplishments that members send me about themselves or other members. I will be watching Facebook and the HCRA mailing list to cull information, but I can only publish items if I know about them. Please send radio related news about you or other members to w1msw@arrl.net.

Member Profile: George Collins, KC1V

Name: George Collins

Town: Somers, CT

Callsign: KC1V: I was issued this call when I moved to Connecticut in 1979.

Previous Callsigns: AD0W, WD0BCL, WN9QLO

License Class: Extra

Main station equipment: A TS-930SAT and a TS-850SAT on HF. An FT-897D serves as the main VHF/UHF rig for 2 and 6 meters and 70 cm.

Mobile station equipment: Various 2-meter/440-MHz FM rigs. I use the FT-897D as my HF portable rig.

Favorite Band(s): 40 meter cw has been my longtime favorite and I spend a lot of time on the "new" 30-meter band.

Favorite Mode(s): CW has always been my favorite, but I also enjoy phone and the digital modes.

What year were you first licensed? 1964: It was a one-year Novice ticket back then. I got back on the air in the early 1970s, when I was in graduate school at Kansas State.

How did you become interested in Amateur Radio? Hanging around Radio/TV shops, in the 1960's, with my father, who was interested in electronics, but not Ham Radio. I joined the ARRL at age 12, before I got my first ticket.

What are some of your favorite aspects of the hobby (Field Day, Swap Meets, Contesting, Ragchewing, EComm, etc.)? I think I enjoy building equipment and experimenting most. On the air I like to do a little DXing and contesting.

What is your most memorable experience in the hobby? Probably, it was making my first contact as a Novice with my crystal-controlled 6AC7/807 MOA transmitter.

What was your most memorable contact on the radio? There have been many over the years; one was the first time I worked A35W, Tonga Island, on 40 meter SSB. That was around 1974 and I had never heard of Tonga at that time. It was pretty neat.



What do you feel ham radio operators must do to help ensure the future of the hobby? We need to maintain high technical standards. Amateur Radio has always been a technical activity and much of its value has derived from our skills in electronics and related fields. Along with that, we need to demonstrate a high level of skill and professionalism in our on-the-air activities and during our public service work.

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>



Check it out: Jeff Bail's Blog

[Here are excerpts from Jeff's blog on his Heathkit amplifier restoration] <http://nt1k.com/blog/2012/my-sb-200-project/>

I felt that it was time to put some "Fire In the Wire". However I wanted to learn about amplifiers since I have no clue how one really works other than giving my signal a boost. The original plan was to build one from scratch but after some attempt at collecting parts I decided that building one from scratch was not going to work out since I didn't have knowledge to even start one. The next best thing was to buy an amplifier and rebuild it.

I ended up getting a Heathkit SB200 Amplifier. The reason I went with the SB200 is that it appears to have a huge following and (some) parts are still being sold for it. There are also many articles written about this amplifier and it's still being used in a lot of stations to this day.



I found this amp on the for sale section on QRZ.com. The amp needed work and thought that this amp would be the perfect project to get my feet wet in amplifier building. Thing about Heathkit amps is that they are kits. They are as good as the person that built the amp. If the original builder had no clue what [he or she was] doing (examples are cross wiring, swapping components and poor soldering to name a few), the amp will perform poorly if it performs at all.

The amp showed some signs of damage from shipping which appears to be cosmetic but I was worried about the high voltage power supply so I hooked it up to find that I was getting the 2300-2400vdc that I needed. A bit of relief. I've learned to inquire how the item is going to be shipped from now on.

When I got this amp it was in the middle of being restored. There were no tubes, the components were missing on the tube sockets and there were no parasitic suppressors. The new parasitic suppressors: I accidentally wound one of the coils with an extra loop. Thought it wasn't a big deal... **WRONG!**

The only thing I have to do is obtain the rest of the parts. The tubes were available from RF parts. The tubes

were about \$120 for the pair, A new "Soft-Key" kit for around \$30 from Harbach electronics and the rest of the components were about \$20 from Mouser. I have around \$350 invested in this project.

After performing all the checks I can do with the amp off, I was still hesitant on turning the amp on since I never really messed around with an amplifier before. I wanted the amp to be checked out by someone else but I got impatient one weekend and decided to go for it. I removed the tubes from the amplifier and powered the amplifier. To my relief there was no smoke/light show and was still seeing around 2400v on the meter. I turned the amp off and waited till the caps were discharged. Placed the tubes in and turned the amp back on. To my amazement, the tubes sprung to life and produced a comforting glow. I



left the amp on for an hour and nothing happened in that time so I decided to put a signal through the amp to see what happens. I went on the 20m band, put the radio into CW and did a tune. I was glad to see around 600W on my watt meter.

I decided at that point to make some contact with the amp on. Spinning around the dial I hear a Northern Ireland DX station and threw my call out. He responded to my call the very first time and gave me a report of 59 20+. That made me a very happy operator to know that my amp was working.

I now have a working amplifier! Just in time for the ARRL DX SSB contest. I was happy that I was going to get to use my new amplifier and put it to the test. On Sat morning well into the contest I decided to start. Amp on and 20m is quite busy. I was making a good amount of contacts while only searching & pouncing until I started to hear a sizzle sound coming from the amp. Found out that one the resistors in the parasitic suppressor kit broke and was arcing to the resistor it broke from. That kept me out of the contest till I had the nerver to solder it back together and get back on towards the end of the contest. —NT1K

HCRA Meeting Friday Night to Feature Arduino Microcontroller

The Arduino microcontroller is an open-source electronic prototyping platform allowing experimenters to create interactive electronic objects. There are hundreds of projects out there like games, robots—you can probably come up with your own devices. Someone came up with the idea of an unmanned aerial vehicle. (Really. Extra components needed.) My own ideas are

- Oreo cookie counter
- Refrigerator door controller
- Whoopee cushion
- Donut timer



April's meeting will feature Bob/NQ1C discussing Arduino projects for amateur radio. Arduino is a small microcontroller you can program to do many things, it's simple to do and inexpensive (less than \$30). [Ed. note: That's before you start building the unmanned aerial vehicle.] Bob has a few neat projects for us to view and he'll tell us how he created them and how you can too.

Juergen/DK1TM will also be here tonight with a working prototype of his Arduino rotor controller - the ultimate accessory for the lazy ham! But no, there will not be a question on the Arduino on the upgrade exam.

Book Review

Has your sense of wonder ever been piqued by the evolution of the nineteenth century experiments with electricity, magnetism and telegraphy into the early twentieth century movement to create a practical means of "wireless" communication? Have you ever wondered how and why the American Radio Relay League was created or how the hobby of amateur radio began? If so, why not pick up a copy of "The World of Ham Radio, 1901-1950, A Social History" authored by Richard A. Bartlett, published by McFarland and Company and immerse yourself in the saga of the amateur radio movement in the United States of America. It is a good read that will give you a greater appreciation of the difficulties and triumphs experienced by the original radio enthusiasts that preceded us. — Marty W1MJB

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

Skywarn Classes scheduled

Thursday May 31st, 2012: 7-10 PM
22News WWLP-TV
1 Broadcast Center
Chicopee, Mass.

Taught by: NWS Taunton Forecaster

Registration: None Required.

For further information on this and other possible Skywarn classes, contact Eric, N1QKO, et-n1qko@juno.com . NWS encourages anyone with an interest in public service and access to communication, such as HAM radio, to join the SKYWARN® program. Volunteers include police and fire personnel, dispatchers, EMS workers, public utility workers and other concerned private citizens. Individuals affiliated with hospitals, schools, churches, nursing homes or who have a responsibility for protecting others are also encouraged to become a spotter.

Here's a Good Way to Get Licensed

The HCRA will be holding Amateur Radio Technician Classes at the Holyoke Hospital Auxiliary Conference Center, 575 Beech Street, Holyoke, Mass.

Class #1 - Monday, April 23, 2012 7:00 - 8:30 PM

Class #2 - Monday, April 30, 2012 7:00 - 8:30 PM

Class #3 - Monday, May 7, 2012 7:00 - 8:30 PM

Class #4 - Saturday, May 12, 2012 9:00 AM - 3:00 PM

VE Exam - Saturday, May 12, 2012 3:00 PM

There is no charge for the class. Details on HCRA.org; send questions to John/Kx1x, kx1x@arrl.net.

HCRA Board of Directors Minutes

March 6th, 2012

The meeting was called to order at 7:06 PM at the Hampden Bank in West Springfield

OFFICER REPORTS

Vice President, Kx1x--Request from Holyoke Medical Center for another class, John will follow up and report back.

Request for \$20 to cover the Venture Crew Charter renewal fee. Submitted and approved

Treasurer, AA1YW- out of town

Current financial report - \$8505.27

Long term raffle report - 151 tickets sold so far (\$1510)

Donation for work done for John Olver - \$200

Donation from MTARA for FD - \$300

W1LGU donation sold, net of \$293

Secretary W1MJB--Submit January minutes for approval – Submitted and approved

DIRECTOR REPORTS

Technical, KB1NWH

Report – Recap of MTARA BOD's discussion of the proposed joint 2012 Holiday Party and upcoming. FD presentation at MTARA on May 18th.

Suggestion we look into magnetic banners for the trailer.

Put up a Gap antenna at N1MFL location.

Zero Beat, N1FJ--Publication date for April ZB – Cutoff is March 30th.

Membership, W1MSW

Current member count (broken down by member type) – 83 Regular, 20 Family, 3 Life, 24 Prospective At Large, N1KXR.

Report – Spoke at MTARA about Anderson Power Poles and FD.

Program, NN1Y – out of town

April – Bob/NQ1C – Arduino projects for amateur radio

May –John Eldridge/Antique Radio Museum

June – Tailgate Party & elections – suggestion to make it a picnic, w/dogs & burgers & soda provided by the club. Will be run by the DX Crew but food cost will be re-reimbursed by HCRA. Donations will go to the Crew

Crew DX President, N1ELI

Report – Last meeting was 3/2/12. They want to do fund raisers for money. Chocolate bar fund will be done. They want to do a trip to PJ land. List of active members still needs to be sent to Matt. The Crew consists of Eli, Nick, - probably 10 members overall. Proposed meeting during or after WPX at Moses. Want to do NEQP from Moses this year. Also use that time to do shack renovations.

OLD BUSINESS

Status on purchasing the storage trailer from AA1YW for \$700 – Purchased approved by members, Dave/AA1YW will still hold the registration. Trailer will most likely be stored at John/Kx1x's location after refitting.

Has the DX Crew supplied email addresses to Matt for the database? – N1ELI or Kx1x – resend to Matt

Presentation for May? – John Elsworth postponed his presentation until May, QSL bureau was done in March

Kitchen rental for Dufresne should we expand to both days? – KK1W - Decision was to stay with one day.

Web page proposal – W1MSW – Some conversation with NT1K but no real progress yet.

Table at MTARA Hamfest, March 10th – need to confirm volunteers and times – KK1W, N1KXR, N1FJ, W1MJB – Ed will make up a PowerPoint or other video loop to run on a laptop provided by Rich. Jim will bring the raffle tickets, Marty will help cover the table. Frandy will bring some items for the table. A decision was made to split the donation proceeds with MTARA from the donation

Field Day Planning and committee – KK1W – the board authorized \$250 to purchase a tri-plexer for testing. It appears the tri-plexer of choice is the one from Inrad but the cost is approximately \$350 – decision of the board is needed – KK1W. – Board approved the purchase of the INRAD filter for testing.

MTARA/HCRA holiday party next year? – Should this be done? Voted to explore the idea. Initially a swap of membership lists and discuss next month. Ed will follow up with MTARA. - moving forward as planned. Matt will contact Paul/N1TUP and supply him with a list of current HCRA members in a format Paul can use.

NEW BUSINESS

Members at the February meeting approved expenditures exceeding \$500 for Field Day.

Members at the February meeting approved expenditure of \$700 for purchase of a storage trailer.

Loan of equipment to Mike Gruber/W1MG for the Titanic Special Event station? – The board approved loaning equipment for the Special Event. At this time there was no interest in providing setup or operators. Jim will communicate the decision to Mike.

Respectfully submitted on March 22 2012, Marty W1MJB