



ZERO BEAT

<http://hcra.org>

November 2016

Special points of interest:

MTARA/HCRA Holiday Party
Sunday December 4th 1PM

- [Visit the HCRA facebook page.](#)
- Don't forget to check out hcra.org
- [Visit Summits on the Air](#)
- [Visit POTA413 facebook page](#)

**Get your tickets
for the Holiday
Party at the
November
meeting!**

**Last date to get tickets
November 18th**

November's Meeting

**Join us Friday November 4th at 7:30, in the Holyoke Medical Center
Auxiliary Conference Center .**

THE HISTORY OF WCC AND CHATHAM MARCONI RADIO



Dennis Markell
N1IMW

From 1903 until the early 1990's marine radio station WCC was the lifeline to the mainland for thousands of ships traveling the Atlantic.

Owned first by Marconi and then by RCA, WCC transmitted Morse code signals carrying logistics, news (it's a boy!) and even hostage negotiations across the sea. Hear the stories of the men who operated 8 hours of code per shift. Tour the facilities, through photographs of the historic Ryder's cove site.

Most of all, just have fun traveling back in time during this fun and fascinating journey through the days when code was king!

For directions to The Holyoke Medical Center Auxiliary Conference Center:

<http://www.hcra.org/meeting-location/>

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***There is still time to renew your HCRA Membership!
Please fill out the Membership form on page #9!
Bring to the next meeting or
mail to P.O. Box 562, Agawam, Ma 01001***

Your dues help to pay for various club sponsored activities such as: Amateur Radio Classes, VE Sessions, Field Day, Speaker's expenses, and the Holiday Party. It also allows us to make donations to the Holyoke Hospital, and Agawam Parks and Recreation for use of their facilities for our meetings and Field Day.

You can use the form at hcra.org, bring it to a meeting, or mail along with a check for \$15.00 to:

HCRA, P.O. Box 562, Agawam, Ma 01001-0562

You can also pay them online at:

<http://www.hcra.org/membership-payment/>

Or at any meeting.



HCRA / MTARA

Holiday Party

When: Sunday, December 4, 2016

Where: Castle of Knights

(1599 Memorial Dr., Chicopee, MA)

Time: 1:00pm - 5:00pm

Tickets: \$20 per person (in advance)

No ticket sales at the door.

Last date to buy tickets - November 18.

Buffet • Door Prizes • Cash Bar

Tickets can be purchased at the club meetings
or send a check to either of the following:

- MTARA, P.O. Box 3494, Springfield, MA 01101
- HCRA, P.O. Box 562, Agawam, MA 01001

MTARA: Richard Laviolette - kc1aao@gmail.com

HCRA: Harold Woering - n1ftp@yahoo.com

FROM THE SHACK

JEFFERY BAIL NT1K



HCRA/MTARA Holiday Party

Even though it's the beginning of november, The holidays will be here soon. HCRA and MTARA will be hosting a joint holiday party get together at the Castle of Knights in Chicopee MA on Sunday, December 4th (look in Zero Beat for more info). In years past we went to the steaming tender and we always had a great time. Due to logistics and increasing prices, We've decided to try out a different location. The castle of knights has an excellent room to host our event and we hope that you come along. Tickets are just \$20ea. Not bad considering what you are getting. Tickets will be available at the November meeting. You can also mail in a check to our P.O. Box (562 Agawam MA, 010) along with your name(s) and calls of those attending. You can also contact Harold (N1FTP).

Contest Season Is Here

With CQWW Sideband contest this past weekend, Contest season is now in full swing. Even though HCRA is not a contest club, many of its members participate in contests. It's an excellent way to get on the air and make contacts all around the world. Band conditions will make it more difficult compared to years past but hopefully that will force you to improve your station. HCRA does participate as a club in the ARRL 10m contest in December. Hopefully there will be some 10m activity left.

Still Looking For Renewals

Even though HCRA's membership renewal drive is finished, We're still looking for renewals. If you haven't renewed, please please please do so as soon as possible. Your dues help pay for HCRA related events which help promote amateur radio within the valley. This is your club so please help it by supporting it. HCRA has made it very easy to renew, you can use the attached application or you can use your creditcard/paypal online at HCRA.org. John Plaster (K1VOI) will also accept renewals/membership applications at meetings.

Show and Tell

Even though show and tell is months away, I would just like to remind folks that it's coming up. If you are working on an amateur radio related project, think about showing it off to your fellow members. Who knows, you might walk away with prize. If you don't have a project, hopefully this is a wake up call to start one. HCRA sold many arduino kits and we've had a "Share the Knowledge" class on them. Maybe we will see some entries using the arduino.

Share The Knowledge Is a Success

A couple weeks ago HCRA hosted another "Share The Knowledge" class. This time around it was on the popular microcontroller unit known as the Arduino. Juergen (NV1Q) was the instructor and he did a wonderful job. This is just a part of what HCRA is about. Members learning from other members about amateur radio. We plan on having many more classes which will include tower safety and installation, digital modes and portable operating. We've has plenty of positive feedback from the membership and hopefully we can continue this. A big thanks to Gary Fields (WA1MOW) for pushing this.

We Still Need You!

HCRA depends on its members for it to run smoothly. This is something that can't be left to a few people. The entire club needs to pitch in and help each other and the amateur radio community out. We are looking for people to help out with Field Day, our table at the hamfest, Instructors for our license classes, hosts/topics for our share the knowledge classes and contributors for Zero Beat.

Promote Amateur Radio and HCRA!

Let's face it, Amateur Radio is not popular as compared to yesteryears. Even though the ARRL is seeing increase of licenses, Locally we're not seeing an increase of active operators. I often hear stories about how large the area clubs were and how we had to have two VE sessions a month to keep up with demand. I've read though many Zerobeats where meeting attendance was doubled or even triple to what we have now. Would we like to see those numbers again? Of course. However we can't use what used to work to get people in amateur radio. Technology has far surpassed amateur radio. There are devices that fit in our pockets that can communicate with people all around the world. How can amateur radio compete with that? We can't dwell in the past and keep discussing what was. We need to focus on the future of amateur radio. We need to let the public know that amateur radio exists, it's still strong here in the valley and that it's easier than ever to get involved.

If you are part of any Hackerspace, Maker fair, Robotic team or anything else involving electronics and technology, let's see if we can work together. It's a start. If you have any ideas we will set some time to discuss this at meeting.

THE PICO KEYER REVISITED

GENT LAM WA1CQF

Recently I came into the use of a Kenwood TS830S transceiver. I had one in the 1980's. For me, it had one of the best cw receivers available. A selection of filters, excellent AGC, passband tuning, and analog audio which made for a piece of equipment that was a pleasure to listen to for hours on end.

I'm presently using a Pico keyer with a K3. I built it on the base of my Bencher BY1 paddle. I know—the K3 has a built in keyer. It was originally used with a Kenwood TS940SAT. It interfaced readily with the K3, switching a low positive dc voltage to ground.

The TS830's keying circuit involves switching -60 vdc to ground, which the Pico keyer couldn't handle. Time to update the Pico keyer to handle any transmitter keying circuit.

I had an old mainframe pc board taking up space in my junk box for years. It had a nice mercury wetted relay on it. The coil voltage was 5 vdc. The contacts were capable of handling the keying voltage of any radio. Mercury wetted relays are obsolete now and a reed relay can be used in its place. Since 5 vdc was needed for the relay, the decision was made to power the keyer from 120 vac. A filament transformer, rectifier, filter capacitor, and 5 volt 3 terminal regulator were assembled to provide power. Thinking ahead, I decided to add a switch and jacks so I could switch the keyer between 3 radios. Also in my junk box was a nice industrial temperature controller enclosure which was just the right size to house the updated keyer. In the past I have constructed many projects utilizing aluminum miniboxes and the finished projects were lacking in esthetics. A "tune" switch was added across the relay contacts for times of transmitter tuneup. Dry transfer letters, Krylon paint, and National Radio knobs provided the finishing touches.



The above photo shows the front of the updated keyer. The power switch and power LED are at the left. A tune switch grounds the output to assert a key down condition. The red LED operates whenever the keyer asserts output. The red pushbutton switch is used to cycle through the Pico keyer functions. The knob is the speed potentiometer.



The above photo is the rear of the keyer. The AC cord and fuse are at the bottom left with the paddle jack above. The output knob selects one of 3 rigs the keyer may be connected to.

Win a KX2 !!!

Elecraft's Hottest New Transceiver



The New KX2: An 80-10 Meter SSB/CW/Data Station That Fits In Your Pocket!

Quick Specs

- 5.8" x 2.8" x 1.5"
- Ultralight grab-and-go station
- 80-10 meters (9 bands)
- SSB / CW / Data
- Up to 10 W TX
- Li-ion battery option
- Amp-hour meter
- Built-in mic and 0.5-W speaker
- Wide-range Internal ATU
- Perfect for SOTA and field ops

NEW!

\$1000 Package

Elecraft KX2 Transceiver

with

Elecraft MH3 Hand Microphone

Elecraft KXAT2 Antenna Tuner



Tickets only \$10 - all proceeds to HCRA

Only 250 tickets sold!

Drawing March 11th, 2017 @ MTARA Hamfest

(or at a preceding HCRA meeting if all tickets sold prior to March 11th)

INTERESTING ARTICLE FROM EHAM.NET

FOUND THIS ARTICLE ON EHAM.NET

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LESS POWER TO YOU

GILL GRUSON AK4YH

On September 5, 1977 NASA launched the Voyager 1 space probe from Cape Canaveral to study the outer Solar System. The little guy just kept on going into interstellar space, still transmitting out of its twelve foot dish antenna, blissfully unaware that QRP doesn't work. Well, Voyager cheated a little, I do too sometimes, by using twenty three Watts of power, still almost 538 million miles per Watt. Imagine waiting more than thirty seven and a half hour to get a reply to your CQ! Sure, Earth has big ears, but let's not tarnish NASA's golden record; pun intended.

Back down to Earth, are we? Some amateurs use levels of power that if not your head, will make your electricity meter spin. How much power do we need? The FCC says as little as possible to make a decent contact. Some play with micro-Watts and get through; millions of miles per Watt. Transceiver manufacturers seem to have settled on one hundred Watts, a number most likely based on marketing and economical factors rather than real life applications. One hundred is a nice round number. I am a big fan of QRP, or rather, ultra-portable radios, usually five to ten Watts. My friend Ray and I used to experiment with reduced power down to one hundred milliwatts over more than eight hundred miles; CW of course. Why signal with a flashlight when you can use a laser pointer? I was making regular contacts to Eastern Europe from Florida using from one to five Watts to about six thousand miles. Power is expensive, in dollars, Amperes and kilograms.

The military figured it out long ago. They deal with life-and-death communications from the field, portable man-pack operations in HF, which is still in use, just not the only option anymore. My RT-320 outputs about twenty five Watts, as do most military portable transceivers.

Power does help, nobody can deny it. There is however the law of diminishing returns. When the ionosphere isn't cooperating no amount of power will get through. When it does, you don't need much to be heard. A good resonant antenna and some knowledge will go a long way. I bet inadequate antennas radiating only a few Watts rather than the hundred coming out of the transceiver are the norm rather than the exception.

I suggest any new Hams to save their money, study antenna designs and spend an afternoon at the hardware store. Amplifiers are mostly used for contests where the goal is not to make contact but crush the competition. Better chase losses, hunt for noise sources, use better aerials and more efficient modes like CW or PSK-31.


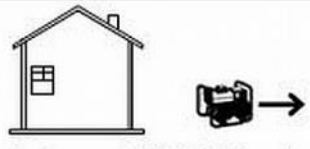
I believe the magic numbers are five Watts CW and twenty five Watts SSB. You can go on a nice DXpedition for the price of an amplifier. If someone doesn't believe how well they hear your five Watts, tell them the story of the little probe that could.

VISIT GILL'S WEBSITE AT WWW.RADIOPREPPERS.COM

Winter and storm season is almost here!

**Remember October 2011
aka: "Snowtober"**

Know how to use your generator safely!

Using a generator indoors CAN KILL YOU IN MINUTES. Generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.	
	
NEVER use inside a home or garage, EVEN IF doors and windows are open.	Only use OUTSIDE and far away from windows, doors, and vents.

DOTS & DASHES:

Things I can't think where to put, but are interesting.

SHARE THE KNOWLEDGE

We have had some great "Share the Knowledge" sessions!

Many thanks to the people that made it possible: Juergen NV1Q, John K1VOI, Matt W1MSW, and Jeff NT1K! We learned about DxLabs, Contesting, and the Audrino.

We need topics and presenters for the new year. If you have a skill or knowledge about a subject related to Amateur Radio, Please "Share the Knowledge" with HCRA members! Contact Gary WA1MOW or Jeff NT1K to volunteer!

ARRL FOUNDATION INVITES SCHOLARSHIP APPLICATIONS FOR 2017-18 ACADEMIC YEAR

[The ARRL Foundation](#) will begin accepting scholarship [applications](#) on October 1 from eligible radio amateurs planning to pursue post-secondary education in the 2017-2018 academic year. Completed applications must be received by January 31, 2017. Individuals and clubs support many of the more than 80 [scholarships](#), ranging from \$500 to \$5,000, that are awarded annually. Applicants for all scholarships must be active radio amateurs and must complete and submit the online [application](#).

DAYTON AMATEUR RADIO DISASTER AND EMERGENCY COMMUNICATIONS PANEL

Saw this post by Paul English WD8DBY on eHam.net. Recognized the 1st name on the list. It's an interesting video. Not the best quality, still watchable.

<http://www.eham.net/ehamforum/smf/index.php/topic.109440.0.html>

On Sunday 22 May at the Dayton Hamvention, Mike Corey, ARRL Emergency Preparedness Manager moderated an emergency communications discussion panel which consisted of the following participants:

Rob Macedo, VOIP WX Net/VOIP Hurricane Net
Julio Ripoll WX4NHC, National Hurricane Center
Stan Broadway, Ohio Section Emergency Coordinator
Bill Feist, SATERN,
Ross Merlin, DHS SHARES
Dave Stapchuk, AF MARS
Paul English, Army MARS

This hour long discussion panel was an audience driven Q&A. 88 people attended the forum in person and an additional 40 people watched the forum via "live stream."

You can watch the full forum at the below URL:

<https://connect.apan.org/p14ridkzu7f>

INTERESTING HAM RADIO WEB SITE:

Do you know how that microphone works, or the history of the vacuum tube, do you know how to tie the proper knot when lacing a wire bundle? Here is a website that explains it all.

<https://www.electronics-notes.com/>

AREA SWAP/HAMFESTS:

Nov 5	Falmouth Amateur Radio HamFest	Bourne, Ma	www.falara.org
Dec 3	CT Vintage Radio Museum SwapFest	Windsor, Ct	www.vrcmct.org

NOVEMBER'S CONTESTS:

Nov	5	ARRL CW Sweepstakes	www.arrl.org/sweepstakes	CW
	12	10-10 Inter Digital Fall Contest	www.ten-ten.org	Dig
		Kentucky QSO Party	www.wkdx.com	CW, Ph, Dig.
	19	ARRL EME Contest	www.arrl.org/eme-contest-1	CW, Ph, Dig.
		ARRL SSB Sweepstakes	www.arrl.org/sweepstakes	Ph
	26	CQ CW Worldwide DX contest	www.cqww.com/rules.htm	CW
Dec	2	ARRL 160 Meter CW Contest	www.arrl.org/160-meter	CW
	10	ARRL 10 Meter Contest	www.arrl.org/10-meter	CW, Ph.
	18	ARRL CW Rookie Roundup	www.arrl.org/rookie-roundup	CW

Local happenings

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)

Munich House

13 Center Street

Chicopee, MA 01013

Expect between 6 and 12 attendees 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, [150 Brookdale Dr. Springfield, Mass.](#) (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, Mass. 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 Community College. (no meetings held in July or August)

<http://www.fcarc.org/>

4th Monday of February, May, August, November 7:00 PM, FCARC VE Exams, Unitarian Church, Main Street, Northfield <http://www.fcarc.org/>

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>

HCRA contact list

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nt1k@nt1k.com

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wm1b@arrl.net

Treasurer, Juergen Malner NV1Q

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k1yo@comcast.net

Skywarn Liaison, Eric Tuller N1QKO

et-n1qko@juno.com

VE Session Liaison, Dave Cote W1FAB

w1fab@arrl.net



HAMPDEN COUNTY RADIO ASSOCIATION

P.O. Box 562
Agawam, MA 01001



Application for New or Renewal Membership

DATE: ___ / ___ / ___

NAME: _____ CALLSIGN: _____

ADDRESS: _____ LICENSE CLASS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE: Home (____) ____ - ____ Cell (____) ____ - ____

Work (____) ____ - ____ - ____ ext ARRL Member: ☐ Yes ☐ No

E-mail: _____@_____ ☐ I don't want to be a member of the HCRA mailing list

Type of application: ☐ New ☐ Renewal (see below)

If renewal use data already on file?: ☐ Yes ☐ No

Class of application: ☐ Regular ☐ Family

*Donations are tax
deductible!
Thanks!*

Please list additional family members (family members at same household are free!)

Name	Call	ARRL Member	e-mail
		<input type="checkbox"/> Yes <input type="checkbox"/> No	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	

My interests: (please check all that apply, even if renewing)

<input type="checkbox"/> Alternative Power	<input type="checkbox"/> Digital Modes	<input type="checkbox"/> QRP
<input type="checkbox"/> Antennas	<input type="checkbox"/> DX'ing	<input type="checkbox"/> Satellite
<input type="checkbox"/> Board of Directors	<input type="checkbox"/> Emergency Communication	<input type="checkbox"/> Teaching Ham Classes
<input type="checkbox"/> Club Events	<input type="checkbox"/> Field Day	<input type="checkbox"/> Training (Elmering)
<input type="checkbox"/> Contesting	<input type="checkbox"/> Fox Hunting	<input type="checkbox"/> VHF/UHF
<input type="checkbox"/> CW	<input type="checkbox"/> Kit Building	<input type="checkbox"/> ?

Thoughts for improving 'our' club:

Received by: _____ Date: ___ / ___ / ___

Entered in database by _____ Date: ___ / ___ / ___

Payment received by _____ Date: ___ / ___ / ___

Annual Dues:	\$15.00
Donation:	\$ ____ .00
Total:	\$ ____ .00



**Here is your exciting copy
of Zero Beat!**

**Holiday Party Tickets are
now on sale.**

**Get yours at the
November meeting.**

**Hampden County Radio Association
P.O. Box 562
Agawam, MA 01030-0562**