



ZERO BEAT

<http://hcra.org>

October 2020

Special points of interest:

Next Meeting:

HCRA physical meetings are currently postponed until we have access to the meeting rm at Holyoke Hospital. Meetings will take place on Zoom. See HCRA FB page for link

[Visit the HCRA facebook page.](#)

- Don't forget to check out hcra.org
- Our section webpage—WMA.ARRL.org
- [Visit Summits on the Air](#)

New Members — Welcome!!

Spencer Lane W1NU

Paul Duquette

Silas Cutler KC1BTV

DUES ARE DUE NOW!!

Membership renewal is September—please renew your membership now—Use the easy online renewal at <https://www.hcra.org/online-new-membership-application-and-renewal/> You can even pay online using PayPal

The HCRA.org webpage has a tab titled “Blog” (<https://www.hcra.org/hcra-blog-2/>) This has lots of things—meeting minutes for the Board, video of the Zoom meetings, various info topics, net status, etc. It has grown during the last few months, with the Zoom feature to record and save meetings has been helpful during this virtual time we are all in. Check it out!

HCRA has a youtube channel: <https://www.youtube.com/user/HampdenCountyRA>. It is growing, and has our May and September meetings, and some basics on radio setup for Hams. Give it a look, it will be growing, and is a good place to catch up on presentations.

HCRA has an opening on the Board for an At-Large director. In the By-Laws, this is defined as: Director at Large: Shall assist any corporate Directors as deemed necessary. That pretty much makes it an open responsibility job. Bring things to the attention of the board, help with organization, projects, meetings, etc. Very open. So if you would be interested in helping with the club, contact Larry W1AST@arrrl.net to get an invite to the next Zoom Board meeting. Also, any member may attend the monthly Board meeting, contact Larry to get the Zoom invite.

Inside this issue:

73, John N1JIE

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The Fox is loose

HCRA has one Foxbox out in the area, ready for you to find. Another one is being built to double the activity.

Go to the HCRA web page: <http://www.hcra.org/fox-hunting-basics/> and find out more about it.

Then join WMA Fox Hunters: <https://groups.io/g/WMAFoxHunters>, grab your HT and find it!

FROM THE SHACK

LARRY KRAINSON W1AST



October 2020 HCRA Presidents Message

It's that time of the year already. The days are getting shorter and cooler, but not quite leaf raking time yet. Thankfully. But those earlier, darker nights are a great time to get on your radio. Why not? In this covid challenged year, why not do something different instead of reading your emails or watching Netflix or surfing the web?

But, the bands are dead you say? Well, yes and no. Yes, the sun spot numbers are not encouraging, yet. But no, the bands are not quite dead. Or not as dead as you think. For two weeks in September, I was camping. A few days in Foxborough, MA and 10 days in historic Gettysburg, PA. 14 days total. The first 4 days I had an end fed antenna up 30 feet at the top and tapered down to the end of my little camper some 21 feet later. Maybe some wire doubled up and connected to 25 feet of coax. That was attached to my Qrp rig. I worked a little CW and some FT8 and my first FT4 contacts. All running just 5 watts from a noisy campground (some 500 other campers). I worked mainly stateside and was happy with that and a few Europeans too.

A few days later, running a different antenna (Alpha Antenna with a 10 foot whip and around 40 feet of counterpoise wrapped around 3 trees at barely 4 feet off the ground).

I never thought the antenna would work, because I had a low power line in front of me and beside me. Each night I got on from Gettysburg and made at least 3 contacts. Also across the US and into Europe running 5 watts on CW and FT8/FT4. After every contact I would say to myself "son of a gun, the antenna actually works".

But even more than that, some 40 contacts over 2 weeks. Sure it takes a little patience, but it works and it's still very exciting. You could be doing the same thing from your home. There are lots and lots of different antenna designs for any circumstance for where you live. If you really want to get on the air, you can do it and yes, you will make contacts. Even in these propagation challenged times. You will have fun too! You'll surprise yourself.

October also brings in the big contests. There are a number of CQ and ARRL, DX, band, and all sorts of contests that start in October. You can say – meh – I'm not interested in contesting. I used to say that and now I enjoy them. Participating on my level, getting new contacts. Sometimes working new DX or a new state or Island or other category you may be chasing or interested in.

Or it just gives you an opportunity to get online and work a bunch of people and give them an extra point. But, how do you set up your station and your self to do this?

Join us for the October HCRA meeting on Friday the 2nd as Matt, W1PY explains how to get started in contesting. You don't need a big contest station, huge antennas, amps, etc. What you have will work and you will have fun and maybe catch that bug too. I know I did.

The meeting starts at 7:30 pm on Zoom. I will send out a link via the HCRA Email Reflector and on the HCRA FaceBook page a few days before. You just need an internet connection and a device like a phone, tablet, computer to watch. If you want to talk, you will need a microphone and/or webcam on your computer. They're already built in to phones and tablets. It is easy and fun.

Casual, social time before the meeting starts early on Zoom. Join us and have fun. You don't want to miss this meeting. It will help you jump start the contesting season which goes through May. You'll learn some helpful information on station setup, computer logging and more. Even if you're not interested in contesting, join us and socialize with your friends. You do not have to be a HCRA member to attend the meeting online. All are invited.

If you were attending live meetings, you'd hear us repeating over and over again how it is time to renew your membership. Being on Zoom and social media, it's no different. The club needs your support to keep going. It's just \$15 per year or do as I do and pay 2 years at a time. That way you only have to worry about it once every two years.

In case you are wondering why pay when we're just holding online meetings? Well, those online meetings cost money. Zoom is not free. We have the Zoom Pro plan which allows up to 100 people in a meeting. That's for \$150 per year. 10 member renewals pay for that subscription. There are multiple fees pertaining to keeping the website up and ours. That's another 10+ peoples worth of dues. You can at times read the board meeting minutes and see what other expenses the club has had throughout the past years. The club built a fox box and is building another fox box there's another 35 peoples worth of dues. There is much more of course. The club is constantly working on new content and ideas for you to participate in and be able to safely participate while socially distancing.

Your dues support all this and more. We need your support.

FROM THE SHACK CONT'D

The club is always looking for someone who wants to contribute, but may not want to commit to being on the board. We've had a few people do just that in recent months and are always looking for more.

We're also always looking for new ideas. Do you think you have a project that others in the club may want to participate in, but do not know how to get started or maybe you just have an idea that you want to coordinate with the club's board. We're always open to new ideas. Share your ideas with any member of the HCRA Board and it will be discussed and we will get back to you in a reasonable amount of time. Share those ideas! <http://www.hcra.org/contacts/>

As the weather is getting cooler, many vacations have gone by and you are home again. How about trying some fox hunting and being able to safely social distance from others. The HCRA has one active foxbox and a second being constructed. All you need is a HT, directional antenna and an attenuator (is suggested). Join for free the WMAFoxHunters group and learn when the foxbox has been recharged and placed in a new hiding spot and is ready for you to go find it.

<https://groups.io/g/WMAFoxHunters>

Joining is free. You'll learn the frequency and how to activate the foxbox. Hints are provided and the rest of the hunt is up to you. It's great fun. Different people have hidden the foxbox in the past. So it has been hidden in the Springfield area all the way up to the Sunderland area and everywhere in between. The foxbox must be on public access land and safe parking as well as safe access to the box is a must. There are no fees to find the box. With an HT and less than \$30 worth of antenna and attenuator, you can be out hunting.

Here are some good plans for a tape measure 3 element yagi that works very well:

<https://nt1k.com/vhf-3el-tape-measure-yagi/>

Here is a source for a good offset attenuator kit:

<https://kc9on.com/product-category/amateur-radio-kits/>

When you find the fox box, post a picture and comment on the WMAFoxHunters group for all to read. We love to hear what adventure you went through to find the fox box. Even if you were skunked (could not find it) share that with everyone.

Faye and I go out many weekends searching for the HCRA fox box or if I'm the one hiding it, then we're down in Connecticut searching for the CTFoxHunter fox boxes. They are usually very sneaky down there too.

Do you need some help? We'll be glad to coach you and take you on your first hunt or first few hunts. I've done that a number of times these past few months. It's great fun! I hope to see your posts and maybe hear you out there!

Also, it's a great activity to do with your spouse, friends, kids or grand kids too!

Finally in ending:

please pay your dues

join us for the Friday, Oct 2nd meeting

join WMAFoxHunters and join in the fox hunting fun

start working some HF – I hope to hear you on!

Contribute your ideas to the board – they're all worthwhile

73,

Larry, W1AST

HCRA President

SCHEDULED MEETINGS AND SPEAKERS:



Show & Tell — members present their projects at Zoom meeting and show them off!!

OCTOBER

Beginning Contesting by WIPY



SDR and Flex Radio by NTIK



The annual HCRA Holiday party—this year a Virtual Party with a guest speaker. More info coming soon.



N1FTP and the thrill of wallpaper certificates



Different Fox Hunting Techniques & Gear



ClubLog: What is it, and What can you do with it?



To be determined



To be determined



Elections, Field Day and more? Please consider volunteering to run for a Board position—many hands make light work, and HCRA is better with you involved!!

ARRL STUFF

Things are happening in the world of Amateur Radio. ARRL is our advocate for Government, education and organization. I hope everyone that is a member of HCRA is also a member of ARRL.

What's in QST?

This month:

- A great article by our neighbors in NH, Nashua Area Radio Society—<https://www.n1fd.org/> and their Ham Bootcamp program. Fun fact—the XYL in the article, KE1NZY was in my Extra class that I took in 2018. Got her Extra at age 10... NARS also is offering upgrade classes online and is setting up remote examinations.
- A product review of 4 well known power supplies. Funny thing—the performance doesn't always match up with the price. All 4 met FCC specs, of course. Prices ranged from \$100-\$440 so there is plenty of gear that will do the job for the budget minded Ham. Also covered were an attenuator kit, and some antennas. ARRL labs does a pretty thorough tech look at equipment, think of it as consumer reports lite for Hams.
- Antenna projects
 - another neat way to make a 2m antenna for \$10. Could be used as a temporary base antenna, one to use with an HT or at a campground. Fun project that could make a winter evening interesting.
 - A more involved vertical antenna for 80 /40 / 30 meter. Not as detailed, and this is a permanent install. It is more of a “how I did it” than a plan for others to follow, but it does give you something to think about.
- ARRL Scholarships—did you know that ARRL awards over 100 scholarships each year? This month, the winners are announced, and shown.

QST is the main, standard membership magazine. This month has a LOT in it. ARRL members get a choice of QST or On the Air. You also get digital access to both, plus QEX (projects and tech) and National Contest Journal.

Membership is just \$49/yr, less than a weekly coffee at Cumbys...

To learn more about membership, and how it can help you—<http://www.arrl.org/membership>

PC headset to Hamradio headset

Many of us received a free gift from Aaron KF1G who brought a big bag of brand new PC headsets to a HCRA meeting.

I have a Heil headset for my Icom IC756Pro II and when I asked Heil for an adapter to use on my Yaesu, I would have to send in my headsets so they could change out my microphone element. Many Icom radios use a dynamic mic element while many Yaesu radios use condenser for electret mic elements. Rather than do that or buy a whole new headset just for my Yaesu radios, I wanted to see if I could make the PC headset work since it uses a condenser/electret mic element. If your radios have the same mic elements, you only need to buy plug-in adapter which is about \$24.00.

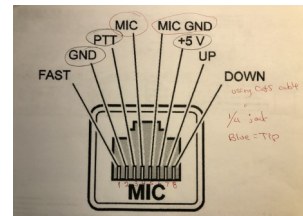


Condenser/electret mic elements are used in all cell phones and are very sensitive especially since you can use it as a speaker phone and converse from a few feet away. For that reason I chose to use a foot switch vs Vox. Condenser/electret mic elements also require 4-12V dc.

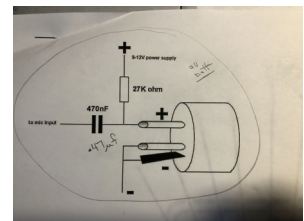
I started by cutting one end off a CAT5 jumper cable so I could connect the other end directly into my Yaesu FT900, FT857, or FT817.



As you can see from the microphone wiring diagram for my Yaesu radios, I have everything I need for my little black box project. PTT, Gnd, +5Vdc, Mic and Mic Gnd.



This slide shows a typical circuit for using a condenser/electret microphone element. Very simple. A resistor, capacitor, and 4-12Vdc.



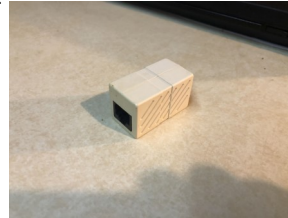
The first successful attempt was made by just using an externally mounted 9V battery and the radio's VOX which worked but every sound in the room triggered the PTT. It was that sensitive.



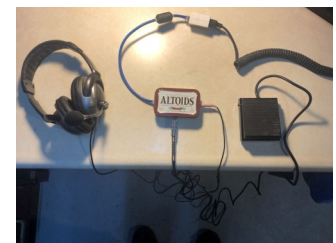
This is a picture of a typical foot switch. You can use a hand switch as well.



Because you can't readily disconnect the mic jack from a Yaesu 857 because it's behind the faceplate, you can disconnect the cat5 connector at the mic end. Using a cat5 to cat5 adapter, I was able to connect my black box to the adapter and the mic cord from the radio to the black box as seen here.



The finished black box. I added a toroid as an extra RF filter.



It worked great during the recent Field Day event. This is a pic of my camper that I pull with either my Harley or Car.



Cost:

Headset	Free
Altoid Box	Free (after I ate them)
Cat5 jumper	Free
Resistor	Free
Capacitor	\$.49 (From Jameco Electronics) P/N 2289895
1/4" Jack	\$2.25 (From Jameco Electronics) P/N 2235962
1/8" Jack	\$1.29 (From Jameco Electronics) P/N 2095437
Foot Switch	Free

Total expenses: **\$4.03 (free shipping if spending more than \$25. I did !!!)**

Heil Proset for Yaesu **\$135**

*** And lastly, I can still use them on my PC during a Zoom session !!! ***

Clublog update: Clublog can be accessed at <https://clublog.org/league.php> Signup is free, and there are a number of ways to lookup information. Give it a try.

☒ No Mode Filter
☐ CW
☐ Phone
☐ Data

☒ Rank by DXCCs
☐ Rank by slots
Rank by band: Totals ▼

☒ 160M
☒ 80M
☒ 60M
☒ 40M
☒ 30M
☒ 20M
☒ 17M
☒ 15M
☒ 12M
☒ 10M
☒ 8M

☒ Current entities
☐ Current and deleted
☒ Worked
☐ Confirmed

☒ No Date Filter
☐ 2020
☐ 2019
☐ Last 12 months

Filter by club/continent:
HCRA - Hampden County Radio Association ▼

Generate DXCC League

League for HCRA - Hampden County Radio Association

Rank	Callsign	160	80	60	40	30	20	17	15	12	10	6	DXCC ▼	Slots	Range
1	NU1O-1	18	149	9	258	240	325	273	322	230	308	4	335	2147	32 yrs
2	NV1Q-3	27	135	0	180	111	308	257	314	232	255	2	329	1822	41 yrs
3	KK1W-1	135	190	7	258	215	308	274	278	212	231	38	328	2152	44 yrs
4	NF1G	0	153	0	228	245	299	252	260	192	200	43	319	1843	36 yrs
5	W1PY-1	34	114	0	195	83	244	201	238	128	204	7	289	1429	10 yrs
6	KK1X	65	125	57	180	140	198	122	202	40	192	8	251	1329	23 yrs
7	K1VOI	5	55	2	105	50	199	137	159	88	142	3	246	927	19 yrs
8	K1NZ-1 *	112	151	83	184	182	182	155	138	48	65	5	239	1287	9 yrs
9	N1TA-3 *	105	143	15	184	60	200	80	185	5	129	0	238	1092	19 yrs
10	AB1WT	2	32	1	52	4	128	123	125	64	89	1	212	522	6 yrs
		160	80	60	40	30	20	17	15	12	10	6			
11	W1AST-1	2	50	9	100	24	154	104	122	7	120	7	201	719	11 yrs
12	NT1K-2	5	49	2	103	33	184	45	141	47	123	1	199	734	10 yrs
13	N1FTP	0	7	0	60	0	155	45	117	15	109	1	182	522	12 yrs
14	WD1S-2	49	57	1	115	23	148	40	95	11	95	2	176	539	8 yrs
15	N1JIE	1	5	0	23	2	47	20	5	1	4	1	68	110	3 yrs
16	AB1ZJ	0	0	0	14	0	35	0	0	1	0	0	45	51	4 yrs
17	N1FJ	0	0	0	5	0	19	0	14	3	15	0	43	57	7 yrs
18	KB1VSK	0	2	0	4	0	35	4	1	0	2	0	38	48	4 yrs

This is the clublog with open dates—basically a history from the start of each persons log. As you can see, many of the top members have many years on the air.

Info from 9/26/20

☒ No Mode Filter
☐ CW
☐ Phone
☐ Data

☒ Rank by DXCCs
☐ Rank by slots
Rank by band: Totals ▾

☒ 160M
☒ 80M
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Filter by club/continent:

HCRA - Hampden County Radio Association ▾

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League for HCRA - Hampden County Radio Association

Rank	Callsign	160	80	60	40	30	20	17	15	12	10	6	DXCC ▾	Slots	Range
1	KK1W-1	41	52	0	99	53	102	21	25	7	14	22	216	435	44 yrs
2	NF1G	0	70	0	91	82	114	98	50	57	79	38	197	559	35 yrs
3	W1PY-1	0	35	0	87	0	157	12	53	0	5	5	196	355	10 yrs
4	KK1X	50	101	38	147	115	149	108	92	20	35	5	186	551	23 yrs
5	NU1O-1	1	19	0	82	22	158	25	41	2	45	1	182	387	32 yrs
6	K1NZ-1 *	55	103	57	101	104	125	112	55	40	41	5	177	514	9 yrs
7	N1TA-3 *	2	59	15	82	52	107	54	43	1	12	0	131	408	15 yrs
8	NV1Q-3	8	11	0	55	4	107	13	50	2	5	1	116	259	41 yrs
9	W1AST-1	2	34	0	48	1	81	17	21	0	1	2	98	207	11 yrs
10	NT1K-2	5	3	0	10	13	81	3	17	0	4	0	92	135	10 yrs
		160	80	60	40	30	20	17	15	12	10	6			
11	K1VOI	1	10	0	40	5	51	15	10	3	5	1	75	142	15 yrs
12	N1JIE	1	4	0	5	0	15	2	1	0	1	0	27	35	3 yrs
13	AB1WT	1	2	0	3	0	15	5	3	1	1	0	25	33	5 yrs
14	N1FTP	0	1	0	5	0	15	4	0	0	1	1	19	27	12 yrs
15	N1FJ	0	0	0	4	0	10	0	0	0	0	0	13	14	7 yrs
16	KB1VSK	0	0	0	1	0	12	0	0	0	0	0	12	13	4 yrs
17	AB1ZJ	0	0	0	0	0	3	0	0	0	0	0	3	3	4 yrs
18	WD1S-2	0	0	0	1	0	0	0	0	0	1	1	2	3	8 yrs

This is the clublog for 2020. You can see a different order of participants. But also some newer Hams getting active—awesome!

Show and Tell— September 2020 Zoom meeting

<http://www.hcra.org/2020/09/20/september-2020-meeting-annual-show-and-tell/>

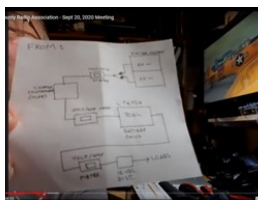
There were 4 entries this year, Considering that the last 6 months has been a virtual world, I congratulate all of them for putting together a presentation in these difficult conditions. I've put the link above so you can see the presentation if you missed the meeting (one of the advantages to Zoom meetings). The Show and Tell starts at about the 28:00 mark.

Charlie KC1IKA—
29:30



simplifying his solar / battery wiring for his off grid shack. The pictures are a bit hard to see—he was participating on his phone.

Before:



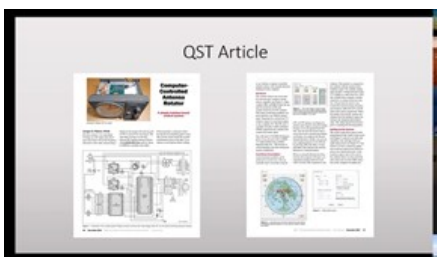
After:



Juergen NV1Q—
40:50



A computer based interface for a manual Ham IV controller, published in QST, and on the HCRA.org page.

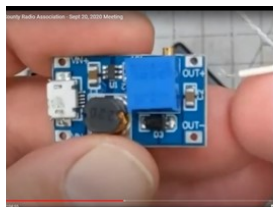


Aaron KF1G—
54:40



Adjustable voltage USB boost converter to charge HT with USB.

The board:



with display:

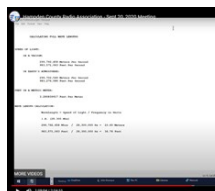


John W1JKB—
1:04

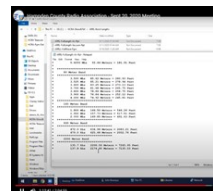


2 programs in Basic to determine wavelength for frequency for antenna building.

Beginning parameters:



Results:



The Judges: Najm AB1ZA / Gary AA1UE / Marcel AA1WH decided as follows:

1) Juergen NV1Q 2) Charlie KC1IKA 3) Aaron KF1G

Contact Larry W1AST if you want the prizes that were available for the competition.

DOTS & DASHES: Things I can't think where to put, but are interesting.

INTERESTING HAM RADIO WEB SITE:

Got a couple this month:

QSOMap.org—saw this in QST, and also on the site below. It uses google maps to take your adif file from your log-book, and displays them in different formats. Gives you a visual of your contacts. Tracking WAS? Or a state QSO party? It is still under development, and things are being added as the developer can get things done, but it looks like another fun way to track your contacts. I will see how much I can do with it this winter—I registered and I am the 2nd supporter from our club ;-)

Eham.net/links—This link page has over 2000 sites listed—international, commercial, clubs, individual, etc. Lots of different types—geared toward QRP, antennas, projects, just about anything. HCRA is listed, as is QSOMap. We all know Eham.net for its information and user reviews of equipment. This is another feature that can lead you down a rabbit hole on the internet on those days where the QRM is bad or the shack is just too messy to play in.

INTERESTING “EVENT”

When is a Ham event a celestial event? When it's a new Solar Cycle. We've all dealt with our low end of cycle propagation—well, the new sun is here!!

<https://www.nasa.gov/press-release/solar-cycle-25-is-here-nasa-noaa-scientists-explain-what-that-means/>

It isn't really just about us... but it will give us hope that in a few years, a 100w and a wire will be able to reach Oceania on SSB. At least, I am hoping. Since I got my license at the end of cycle 24, I have only seen the current conditions.

I am looking forward to better propagation in the future!!!

UPCOMING CONTESTS (just a few...)

October

October 10-11	ARRL EME Contest	grid sq	50 and up	arrl.org/eme-contest
Various	QSO Party—CA /PA /NV /SD /NY /IL	Lots of fun!		
October 19-23	ARRL School Club Roundup	RS / class(I/C/S) / SPC		www.arrl.org/school-club-roundup
October 24-25	CQ Worldwide DX	RS / CQ Zone		www.cqww.com/rules.htm

Many more contests listed at: <http://www.arrl.org/contests> or <https://www.contestcalendar.com/contestcal.html>

Don't forget special event stations— <http://www.arrl.org/special-event-stations> These are fun contacts, usually with a special QSL card or certificate.

Special Event Station

October 3	New England Wireless and Steam Museum	www.newsm.org
October 10	Birth of the US Navy, USS Midway	14.320 / 7.250 / 14.070 (PSK31) / D-STAR
October 17	BSA—Outdoor adventure, Russel MA	14.290 / 14.060 / 10.115 / 7.190

Local happenings / Nets

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.

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

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
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- 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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w1ast@arrl.net

Vice-President, Marcel LaPierre AA1WH
aa1wh@arrl.net

Treasurer, Duane Pray KC1FQV
kc1fqv@arrl.net

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W1NY trustee, John N1JIE
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WB1Z trustee, Vanessa W1IRL
w1irl@arrl.net

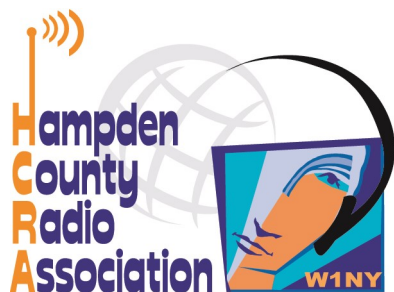
Club meetings & VE sessions Please contact site / organization to ensure it will meet.

1st Friday of the month 7:30 PM, HCRA Club Meeting, Virtual meeting on Zoom. Meetings will continue on Zoom until it is safe to meet as a group. <http://www.hcra.org/>

3rd Friday of the month 7:30 PM, MTARA Club meeting, Virtual meeting on Zoom. Meetings are on hold until further notice. <https://mtara.org/>

4th Friday of the month 6:00 PM, Technician, General, and Extra Class License Exams, in-person exams are on hold at present. A virtual exam is being explored. Hosted by the Western Mass VE Team (WMVET). Contact: David Cote, w1fab@arrl.net

Second Monday of the month 7:00 PM, Franklin County Amateur Radio Club meeting, Virtual meeting on Zoom. Meetings will continue on Zoom until it is safe to meet as a group. <http://www.fcrc.org/>



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

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