



# ZERO BEAT

<http://hcra.org>

*Our 73rd Year!*

April 2021

Special points of interest:  
Next Meeting:

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

HCRA is on the web in many places, Twitter, Instagram, Facebook, and don't forget [www.HCRA.org](http://www.HCRA.org)

## Welcome New Members

Peter Giacomelli	KB2DY
Anthony Jacobs	no call
Charles Allen	KC1OSJ
Carol Washington	KC1OZP

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## From the editor,

*This is my first solo issue so I want to take a minute to tell you a bit about myself. I was first licensed as N1KQH in the early 1990's as a no-code tech. Soon, I was bitten hard by the ham radio bug and wanted more! I began studying code on cassette tapes in a Walkman (yes I said cassette tapes & Walkman) regardless it worked and I went from 0 to 5 to 13 wpm and before I knew it I upgraded to Advanced class where I am now. I've held KD1KU since 1993 and even found the "welcome to HCRA" in the Zero Beat archive back in November 1993, the first time I joined HCRA.*

*I want to thank John, N1JIE for making my transition to ZB editor as easy as it was!*

*This issue has plenty of reading material including a follow-up article on the great balloon launch by Marcel, AA1WH, rumors are that balloon #2's launch is in the not so distant future! If that's not enough I have an article about SKYWARN™ and the upcoming virtual classes to become a SKYWARN™ Spotter via Zoom. It doesn't stop there either but I'll let you find that out for yourself.*

*I would like to encourage all club members to submit ham radio related article's for future issues. Don't worry about formatting it as we will take care of that as long as you get the basic article and photos to me before the 20th of each month.*

*I have several exciting ideas for Zero Beat and will be making changes a little bit each month. With all these exciting ideas coming... don't change that frequency!!*

*73, Ken - KD1KU*

## April Meeting

**Friday, April 9th @ 7:30pm - Rag Chew Time @ 7pm**

## Show and Tell

We've all grown accustomed to club meeting's being held on Zoom and April is no exception from the past year (Zoom meeting link in "Larry's from the shack").

The Show and Tell meeting has to be one of the favorite meetings over the past year which says allot as every meeting so far has been fantastic with some great guest speakers and all of this during this crazy pandemic!

Don't miss this meeting as it encourages the ham DIY spirit with projects ranging from simple to complicated, but be aware each participant only has 10 minutes to show off their talented ideas before being judged! See ya' on Friday

# FROM THE SHACK

LARRY KRAINSON W1AST

April 2021 - From the Presidents Ham Shack



**A**pril has always been one of the best and most interesting meetings of the year as it is the Show and Tell meeting. It's when club members get to show off what they have been working on, be it kit or project wise. In the past we've seen amplifiers built from a kit and home brew everything from CW paddles, to wild antenna designs to everything in between.

If you're a new ham and just built your first  $\frac{1}{4}$  wave 2m antenna, show it off. If you've just built the CW Decoder kit, show it off. If you have home brewed something, show it off. If you have something you have been working on whether it is completed or not and it's something that you have not shown at a prior Show and Tell, show it off during the April Show and Tell meeting. Be prepared to show the item and discuss it for up to 10 minutes and to answer questions from those attending the meeting.

Everyone will find what you show interesting and might prompt someone else to build the same thing. Join us for the April 9th meeting (**Link Below**). The

Zoom room opens at 7 pm for pre-meeting meet and greet.

<https://us02web.zoom.us/j/83793313622?pwd=R2ZsdnpkTUIsbnhscGxSZFRNUjJ4dz09>

## The club is looking to add to the HCRA YouTube channel

(<https://www.youtube.com/user/HampdenCountyRA>)

Not only with monthly meetings and Share the Knowledge sessions, but videos from the members. We're looking for some 3 to 5 minute videos that could be how to put on power poles, how to strip wire w/o also breaking the wires inside, how to solder a PL-259, or put on BNC connectors, how to splice wire and use heat shrink tubing, how to keep your shack wiring organized and neat, and so many other subjects.

We're also looking for videos that are 5 to 20 minutes long which could be making your first dipole or how to make a tape measure 3 element fox hunting/2m yagi, how to make a J-pole antenna, how to correctly ground your shack, and so many other subjects.

You can record these with your phone, digital camera and even a webcam (2 meg or higher suggested).

If you are wondering how to send a file larger than 20 or 25 meg via email there are services that can be used. One of the easiest is to create a FREE Basic DropBox account. (<https://www.dropbox.com/basic>) This gives you 2 gig of space. You can save your video there and then share the video via a link to it with the HCRA web guru Vanessa; W1IRL; at [webmaster@hcra.org](mailto:webmaster@hcra.org). She can then get it and uploaded it to YouTube. This is how we get the monthly meetings up. Vanessa will then post a link from the HCRA.org website.

Currently we have 10 video's at <https://www.youtube.com/user/HampdenCountyRA>. Please visit and whatever you do don't forget to subscribe. You can always fast forward to what you want to watch and hear, skipping the free for all chat that happens prior to each meeting if you don't want to watch and listen to it. But often the pre-meeting chatter can be very interesting too. For example before the CW Academy presentation, we were all showing our CW keys and paddles.

**The ZeroBeat Editor** transition is now complete and Ken; KD1KU is officially the new ZeroBeat Editor. Welcome aboard Ken!

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# FROM THE SHACK CONT'D

A **BIG** thank you to John; N1JIE; for his ZeroBeat Editor work these past few years! The work that John put into ZeroBeat made it into one of the best ham club newsletters in New England.

How often do you chat with someone; whether it be on 2m or at a meeting or online or on HF and want to know more about that ham? I go to Qrz.com to learn more. Sometimes it's just curiosity as to what town they live in, and often more.

Qrz.com is a place where you can put your ham radio bio. Talk about your equipment, your ham radio life, items of interest, helpful facts or whatever and also include pictures. It's up to you to decide how much or how little you want to put up there. But you should do something. If you read other peoples bio's, then others want to read about you. Get creative and post some info. Also, check back every once in a while and update your pages info.

**Kudos** to Mike; N1TA. He ran the recent Tech Class and students tell me he did an amazing job. Mike took on the organizer of the class a few months ago. I thought he would recruit others to teach but he decided to control the content and class time and teach it himself. The class had a little over 60 sign up and around 40 attending each class session each week.

Normally after a class, we would hold a special VE session. But since Covid put the kibosh on local testing, the students have to find an online testing session themselves. Mike gave them some guidance and suggestions. But it's up to the student to find and take the test on their own. We all await news as new hams appear from the class.

Mike also recorded each class. Soon the whole Tech class video will be available on our HCRA.org web site. Future hams, can watch the video and learn. We hope to also provide an email of someone to answer future student's questions to help them as they watch the class.

We also hope to do a similar General Class. Right now it's in discussion mode and might be put in place in the near future. General will be the next class that the HCRA holds. Stay tuned.

As the days get warmer, many people are talking about more outside activities. It's only mid-March as I write this and Faye and I are going Fox Hunting in CT this afternoon. Very soon, the HCRA Fox Box 1 will be out of hibernation and start to be hidden again. Hopefully very soon the Fox Box 2 will be ready. It is about 70% completed. We used a better HT and hope it hears better, has better range and less issues than FB1 has. With two HCRA Fox Boxes out there, you will have a fun time chasing and finding both.

**Fox Hunting** is a great way to safely social distance AND get outside for some ham radio fun. For as little as \$70 you can arm yourself with an HT, attenuator and antenna and go find the hidden fox. To get the details on how to activate the Fox Box and see what others are doing, join the Western MA fox hunters group here: <https://groups.io/g/WMAFoxHunters>

When Covid struck and everything was initially canceled last year, the CW Decoder kit and build was delayed. Initially we did not know how long. Eventually the thoughts of a group build session faded and we started distributing the kits. Well, a year later and they have all been delivered finally. The board is kicking around an idea for a new project. We think we have something very cool and are working on the final aspects of it. That's all I'm going to tell for now. You'll have to read future issues to learn more.

Continued on pg.4



# FROM THE SHACK CONT'D

**Hopefully** by September everyone will have been vaccinated and it will be safe to meet in person again. Gary, AA1UE, the clubs Program Director has some great ideas for guest speakers and subjects for the fall season. Once he gets confirmation, the fall speakers will be published.

Field Day. The BIG unknown. Even with the vaccine out there, late Spring and Summer gatherings are questionable. As more and more Field Day questions come in, all the board can say is "We don't know yet."

It's very possible that the club could put together a group FD effort at nearly the last minute IF we have a place to do so. If we did a FD this year, ALL participants would need to be vaccinated for everyone's safety. There is a lot to think about in the next few months and above all hope that everyone gets vaccinated.

For now, everyone continue to stay safe, get on the air and have fun with ham radio. Your HCRA is trying to be creative in finding ways for to keep you interested and involved safely.

73,

Larry, W1AST

HCRA President

[W1AST@arrl.net](mailto:W1AST@arrl.net)



## **April Meeting Date Change**

Don't forget the April meeting date has been changed to Friday, April 9th. Meeting is at 7:30pm but Zoom room opens at 7pm for a friendly rag chew session to catch up with all your HCRA friends!

**Meeting link:**

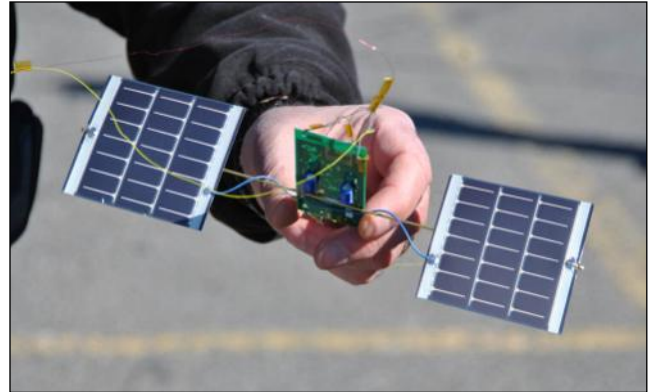
<https://us02web.zoom.us/j/83793313622?pwd=R2ZsdnpkTUI5dnhscGxSZFRNUjJ4dz09>



# BALLOON PROJECT FOLLOW-UP CONT'D

## AA1WH Pico Balloon Project (follow-up)

A month has passed since the last project update and at that time I was waiting for a favorable weather window to launch the balloon, everything necessary for the flight had been assembled, tested and was ready to go. On March 1, the weather outlook for the next week looked good. Radar showed some storms in the mid-Atlantic but they appeared to be small and moving to the north. Nothing to worry about or so I thought. While adjusting the amount of hydrogen in one of the balloons, a gust of wind blew it out of the garage and before I could react, it was across the street and above the trees. There is a photo on the HCRA Facebook page on March 4 that I took as soon as I could unlock my mobile phone, point and shoot. The balloon had 15 grams of positive lift and it went up fast. Now, I had to decide whether to go with just 1 balloon which would lower the “float” altitude by up to 3000 feet or try and get another 36-inch mylar balloon. I did find another balloon but the quality was not good enough to use, so this balloon became the test balloon we launched moments ahead the pico balloon with payload on launch day. Lesson learned to secure the balloons even when in the garage!



I made the decision to try and launch on the morning of Monday, March 8. I abandoned the Holyoke Mall parking lot for several reasons and changed the launch site to the Springfield Plaza parking lot behind the 99 Restaurant and that worked well for us. I arrived with my wife Ann, KB1UYJ about 10:00AM and met with Larry, W1AST; Larry, KD1RV; Ken, KD1KU and his wife Cecile. My son Justin and his 2 kids came by to help out with 3-year-old Helen actually launching the test balloon and then the pico balloon while her 10-month-old brother, Daniel slept in the car. The test balloon had only 3 grams of positive lift but it went up quickly and within seconds was well above the parking lot lights. Helen released the pico balloon with me holding the tracker 20 feet behind and Larry KD1RV holding the end of the magnet wire dipole 17 feet behind me. The balloon did not go up, the breeze was light but it pushed it down to the ground. There were a couple of groans from the group but I had measured the lift several times and knew it was properly inflated even though the balloon looked severely under inflated. These balloons fly with only 2.7 to 3.5 grams of lift otherwise they would pop when they get up to max altitude. Also, W5KUB has a Youtube.com video of one of his

launches and the very same thing occurred before the balloon rose. Within a few seconds the breeze died and the balloon started going up. I chased behind it for a few seconds with Larry to keep as much of the payload weight off the balloon and it worked, we had liftoff! We released the tracker and end of the dipole and it started to rise. The balloon provided one more moment of suspense though, it headed directly to a light post that has a wire strung from it to the 99 and it looked as if it were going to get tangled in that wire. Physics won out, the balloon rose and the payload cleared the obstruction, we were airborne and heading southeast.

Continued on pg.6



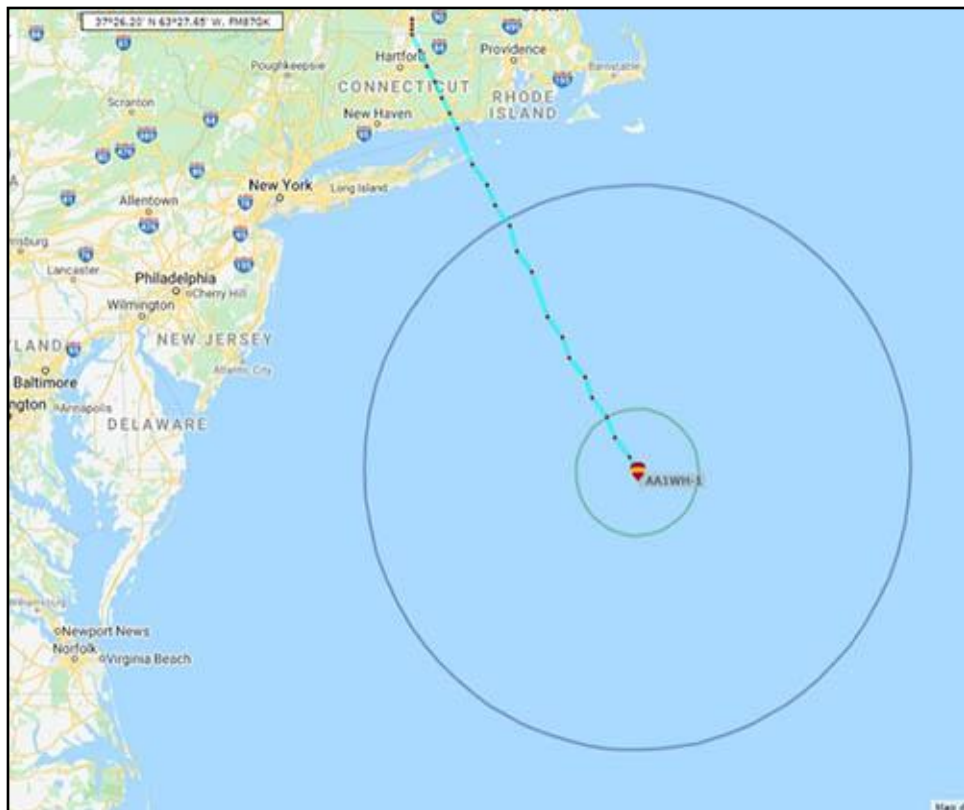
# BALLOON PROJECT FOLLOW-UP CONT'D

I shared the WSPRnet.org and HABHUB.org URL's with the group and we were being tracked on 20 meter WSPR as well as APRS. I would estimate that when the balloon got to about 1000 feet or so we were decoded by LX1DQ, 5871 Kilometers away in Luxembourg! Remember, this was with only 20 milliwatts of transmit power. As we parted, the balloons were barely visible in the sky moving quickly towards the southeast. In very short order, the APRS tracks would begin coming in and HABHUB displays them on a map. I was able to keep an eye on the balloon as it crossed into CT, then continued southeast over Long Island Sound, crossing the Island and moving out into the Atlantic.

All systems were reporting back that the balloon and payload were in good health. It rose to 25,000 feet and settled in there for a while. The voltage dropped from 4.7V to 4.5V indicating clouds nearby. Just as quickly, the voltage rose again and the balloon started rising higher. It passed 26,000 feet and then got to 27,000. All systems were reporting back that it was in good shape but I began to worry that perhaps the balloon had too much hydrogen in it as I had anticipated not getting above 27,000 feet with the single balloon. Once again, it leveled off for a while and then started climbing again. It rose to almost 27,800 feet and then the voltage started to drop. It was more than 200 miles east of the southern coast of Delaware and this was just 4 hours into the flight!

I checked MyRadar.com and RadarScope.com and there was weather in the area but I looked like we were still well away from it and that we would pass south of the storms. A little after 2:00 PM local time the voltage started to drop getting down to 4.3 volts and the altitude was down to 17,000 feet. A drop of more than 10,000 feet! I thought that the balloon had ruptured and we were falling to the ocean but, the altitude held steady at 17,000 feet for quite a while. Then, all reports stopped and I was pretty certain the balloon was in the water. Soon, I received an email from WB8ELK with a satellite photo of the area from Windy.com (I hadn't known about this free app earlier) and the storms were much larger than

what was showing on weather radar. In all fairness, the balloon was more than 200 miles east of the coast of Delaware. Bill said we had run into a storm and ice built up on the balloon causing it to lose altitude. The loss of sunlight caused the tracker to stop reporting so we wouldn't know until the next morning if the balloon had survived. The next morning, I checked my WSPR station and I had received no signals since the previous day. I went to HABHUB and there were no reports of reception from the US, Canada or Europe. By 10:00 AM it was apparent that the balloon had in fact landed in the ocean.

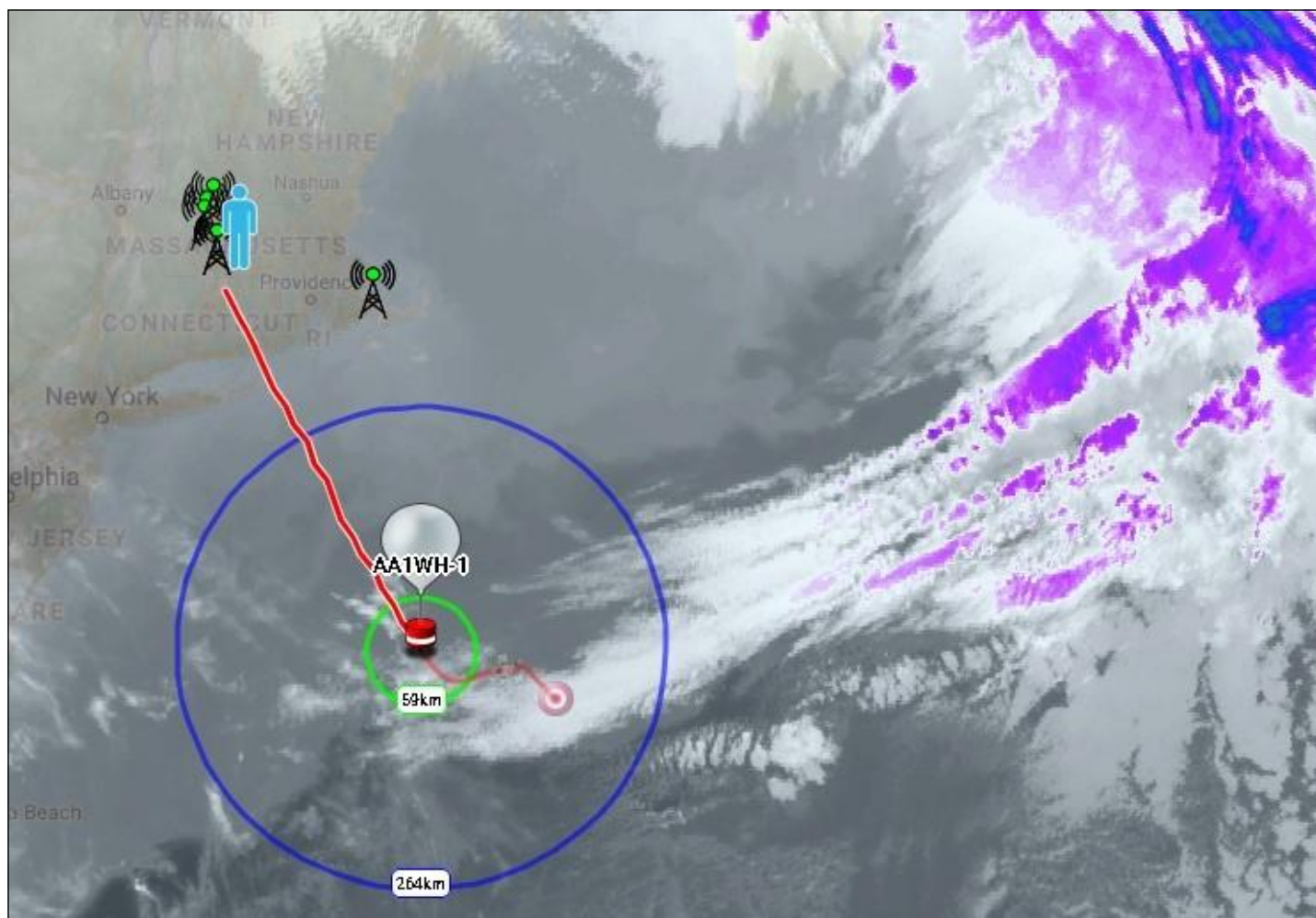


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# BALLOON PROJECT FOLLOW-UP CONT'D

While my goal is to accomplish a circumnavigation of the globe by balloon, I realized very early how difficult this is. W5KUB is launching his 28<sup>th</sup> balloon in March and he has only accomplished 4 laps in 27 tries. Three laps around the globe occurred with a single balloon. Most of the balloons that do make it are much larger than the 36-inch balloon I used, but they are also much costlier. My balloon was a Qualatex super pressure balloon designed to maintain pressure at altitude despite temperature variation. Regular pressure balloons vary in altitude by a significant amount between daylight and nighttime due to temp variation. This increases the tendency to ice up when the altitude drops. Likewise, on particularly warm days a regular pressure balloon will rise higher than it otherwise would and this increases the chance of a membrane rupture. The Qualatex balloons cost \$5.00 each. The larger Scientific Balloon Solutions SBS 13 super pressure balloon is 3 feet in diameter and 7.5 feet tall. These are inflated with 8 to 11 grams of positive lift and will carry the same payload to about 43,000 feet. This will put it above most storms. The cost of the SBS 13 is \$153.00 including shipping. Since they are so delicate (1mm thick) they are shipped in a protective tube and only 2 balloons can be shipped in a tube. Keep in mind that the tracker alone is about \$150.00 so when you add the two together, the cost to get higher and safer is much more!

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# BALLOON PROJECT FOLLOW-UP CONT'D

## Lessons Learned from AA1WH-1,

- ♦ Filling the balloons is difficult. The slightest air movement causes the scale to fluctuate and accurate inflation is of the utmost importance. Even my moving in the room caused the scale to change.
- ♦ Once inflated, assure the balloons are secured with plenty of weight at all times
- ♦ The tracker and antennas are robust. The cold, wind and rain did not cause them to fail but they are expensive and heavy compared to some alternatives
- ♦ All the alternative trackers are unavailable for months due to global component scarcity
- ♦ I've got to get the payload higher; the SBS-13 seems to be the only available answer presently
- ♦ Don't trust radar over the Atlantic. Use Windy.com and check satellite images before launching

In a year that has been challenging due to the covid pandemic lockdowns and isolation, amateur radio has been a tremendous distraction from day-to-day boredom and depression. I have gotten to know people through Skywarn nets, HCRA Health and Welfare and 10 Meter Nets, HCRA and other club Zoom meetings and presentations, re-learning Morse Code and now pico ballooning. The one thing that ballooning has added is meeting people (virtually) from other clubs and regions as well as non-hams like Bob Iverson and his firm Ivey Industries, Inc. who donated the hydrogen and necessary valves and hoses to safely fill the balloons. I've also heard from old friends and acquaintances who saw posts on our Facebook page. I appreciate the interest that everyone of you has expressed in this project. When I conceived the idea, I was hesitant to discuss it as I figured everyone would laugh at the idea, but that has not been the case by any means. I have enjoyed this so much that I have a new tracker ready to go and will be putting out for transmitter testing the next sunny day we have. I have to make the antennas and purchase some balloons and I will be flying again. I hope you have enjoyed this too and that it has provided a little distraction and perhaps kindled an interest in pico ballooning or some other new aspect of amateur radio you want to explore.

Until next time, wear a mask, wash your hands, get vaccinated, stay safe and send out a CQ by whichever mode tickles you!

73,

Marcel, AA1WH



The sun is shining and the temperature is climbing which can only mean one thing... Spring is here? Well that may be true but what I'm talking about is that it's almost thunderstorm and severe weather season! To me it's much more than just disconnecting coax no matter how well you are grounded. As I type this there has been several severe storms down south producing tornados that have devastated property, causing injuries and even fatalities! That's down south you say, well New England is far from exempt from the wrath of severe weather!



If weather interests you or maybe you just want to help then NOW is the time to act! We have all grown accustomed to meetings and online classes being held via Zoom due to Covid. The spring of 2021 is no different as WX1BOX, The National Weather Service Boston/Norton Amateur Radio Skywarn Group will once again be going virtual with five classes being offered, three on week nights and two on weekends to fit into everyone's busy schedule.

## Introduction

SKYWARN™, a program of the National Weather Service, includes thousands of volunteer storm spotters who serve as a first line of defense against severe weather. Reports from spotters are given to the National Weather Service so that they have ground truth information to warn the general public. Spotting provides ground information and localized conditions that the National Weather Service might not know the extent or might not otherwise be aware of. They typically report events, such as structures struck by lightning, rotating wall clouds, funnel clouds or conditions that exceed specific thresholds, such as extremely strong winds, significant hail or very heavy rainfall.

Amateur Radio operators bring to storm spotting many additional resources such as; an established communications system that can function in an emergency even when power has been disrupted, a pool of volunteers that are willing to be trained, a history of public service, and technologies that no other group has. Anyone can be a Skywarn Spotter, NOT just ham radio operators but it is a plus!



Approximately one-third of NWS-Taunton's spotters also are amateur radio operators. This dual role can be helpful, especially during a major storm such as a hurricane, when phone and power lines are downed and amateur radio may become the primary means of communications.

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## What are SKYWARN™ Spotters

SKYWARN™, is a program of the National Weather Service which includes thousands of volunteer storm spotters who serve as the first line of defense against severe weather. Reports from spotters and chasers are given to the National Weather Service so that they have ground truth information to warn the general public. Spotting provides ground information and localized conditions that the National Weather Service might not know the extent or might not otherwise be aware of. Spotters typically report weather related events, such as structures struck by lightning, rotating wall clouds, funnel clouds or conditions that exceed specific thresholds, such as extremely strong winds, significant hail or very heavy rainfall.

Amateur Radio operators bring to storm spotting many additional resources such as an established communications system that can function in an emergency, a pool of volunteers willing to be trained, a history of public service, and technologies that no other group can provide. During weather activations, dedicated volunteers (in close physical proximity to National Weather Service forecasters) operate the club station and listen for reports on various VHF/UHF repeaters. In addition, SKYWARN™ nets are activated on local repeaters and net control stations ask for check-ins and reports that meet severe weather criteria. During severe weather, nets can be heard on local area repeaters, including those in Western Massachusetts and Northern Connecticut, just a few of the local repeaters where Skywarn Nets are held are listed below.

### Local Skywarn VHF Repeater

- 146.940 Mt. Tom PL 127.3
- 147.000 Granville, MA. PL 127.3
- 146.985 Leyden, MA. PL 136.5
- 146.790 Vernon, CT. PL 82.5
- 146.910 Mt. Greylock PL 162.2



### EF3 Tornado that struck the Springfield, MA area in 2011

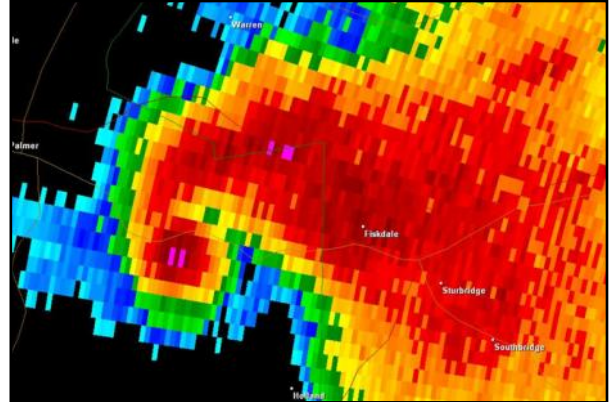


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## Reporting Criteria

Some people think that to report something to Skywarn™ all they have to do is look out of their window, grab their HT or VHF radio during a Skywarn™ Net and say “nothing here”, well that is not the case and as the saying goes if there is nothing to report then don’t report it!

The weather must meet specific criteria before it is worthy of reporting to a Skywarn™ Net and from there to the National Weather Service. This is all covered in the very detailed training but just a few of the most important weather criteria that needs to be met are listed below.



**This is only a partial list of SKYWARN™ reporting criteria:**

### Severe Weather Reporting

- ◆ Tornadoes or funnel clouds (be very wary of look-alikes; watch for rotation)
- ◆ Winds (40 mph or greater; specify whether estimated or recorded)
- ◆ Hail (Be specific with regard to size)
- ◆ Rainfall - 1 inch or greater in an hour
- ◆ Flooding - Streams/Rivers, Coastal, Street, (Road Closures/Washouts, Cars Stuck)

### Winter Weather Reporting

- ◆ First 2 inches of new snowfall, every 2-3 inches thereafter
- ◆ Precipitation type or change (snow to sleet/freezing rain/plain rain)
- ◆ Thunder, when accompanied by snow
- ◆ 1 inch per hour of snow or greater
- ◆ Give final total of snowfall



**Continued on pg.12**

## Training

There is so much more Skywarn™ information than can be put into this small space but the basics have been covered. I hope after you've read this you're much more weather informed and your weather interests have been peaked! You don't need an expensive weather station to become a spotter although it will help, the same goes for being a licensed ham radio operator, it's not required but it does make reporting much easier.

Below is a link that may be of interest plus you can register for one of the upcoming Skywarn™ training classes listed below, There's no time like the present so go ahead and take a class, after all their free and you will be doing your community a big service every time you take part in a Skywarn Net.

Stay safe, get your vaccine (I did), keep washing those hands and wear that mask!

73, Ken - KD1KU

**SKYWARN™ training is being held virtually via Zoom due to the Covid pandemic**

**Register today, classes are FREE!**

<https://www.weather.gov/box/skywarn>

A promotional poster for Virtual Skywarn Weather Spotter Training. The background is a dramatic sky with dark clouds and a bright lightning bolt. The text is arranged in several boxes. At the top, the title 'Virtual Skywarn Weather Spotter Training' is in large white letters. Below it, a grey box contains the text 'Want to learn more about severe storms? Our classes are FREE and open to everyone!'. To the left, a list of dates and times is provided. To the right, a box lists what participants will learn. At the bottom right, a box lists what is needed to attend. The National Weather Service logo and 'BOSTON, MA' are at the bottom left. The registration URL and a small logo are at the bottom right.

### Virtual Skywarn Weather Spotter Training

Want to learn more about severe storms?  
Our classes are **FREE** and open to everyone!

**WHEN:** Thursday April 8, 2021 6:30 PM  
Saturday April 10, 2021 10:00 AM  
Tuesday April 27, 2021 6:30 PM  
Saturday May 1, 2021 10:00 AM  
Thursday May 13, 2021 6:30 PM

**WHERE:** Your home!

\*Optional quiz at the end for those 16+ to become a registered NWS Spotter\*

**Participants will learn:**

- Basics of thunderstorm development
- Fundamentals of storm structure
- To identify potential severe weather features
- What information to report
- Basic severe weather safety

**What you will need:**  
a computer, tablet\*, or phone\*  
\*tablet/phone requires the free GoToWebinar App

**NATIONAL WEATHER SERVICE** BOSTON, MA  
OCEANIC AND ATMOSPHERIC ADMINISTRATION


Register at  
[weather.gov/box/skywarn](https://www.weather.gov/box/skywarn)

## SCHEDULED MEETINGS AND SPEAKERS:

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


**OCTOBER** ✓ Beginning Contesting by Matt W1PY


 **November** ✓ SDR and Flex Radio by Jeff NT1K

 **DECEMBER** ✓ The annual HCRA Holiday party—this year a Virtual Party with a guest speaker, Fred K1VR, ARRL New England Division Director, all things ARRL.


 **JANUARY** 2021 ✓ Harold N1FTP and the thrill of wallpaper certificates

 **FEBRUARY** 2021 ✓ Different Fox Hunting Techniques & Gear

 **MARCH** 2021 ✓ ClubLog: What is it, and What can you do with it? Nick K1NZ will tell us all about it!

 **April** 2021 Show and Tell is back... This is the very BEST out of all the meetings!

 **MAY** 2021 KB1MDS, Mariusz Zielinski - Talking to the International Space Station!

 **June** 2021 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.

## ARRL magazines -

**On the Air** - This month has an interesting piece on Parks on the Air (POTA). Now that the weather is getting better, what better way to enjoy it than with your radio!! Bring your gear out to a State or National Park, setup, and start calling as an activator. Or participate from your shack as a hunter, and make contacts with the activators in the park. This organization started with the ARRL National Parks on the Air activity in 2016. It has really taken off - at publication, membership was about 8000. Just this week it topped 10,000. Go to <https://parksontheair.com/> and find out more. It is free, and has lots of info to get you started. After the WFD activity that Harold N1FTP and I did, I have become very interested. I hope that you do too!

**On the Air and QST** - Here comes Cycle 25. Both issues, and future issues will cover the changes as we move into the new solar cycle. QST gets into more detail, and has some scientific explanations of what to expect as well as predictions from experts. The general consensus is that cycle 25 will be a little less active than cycle 24. Since I only got my license in 2017, I have only experienced the end of the cycle. I am looking forward to the bands getting better.

**ARRL FMT** - The annual frequency measuring test is coming up - 0130Z-0249Z Apr 9. You can participate without expensive test equipment - most transceivers can make accurate measurements. So if you've ever wanted to be part of something technical, without getting over your head, here is something. Go to <http://fmt.arrl.org/> and find out more.

## ARRL Western Mass Section

Check the WMA section page at [www.wma.arrl.org](http://www.wma.arrl.org)  
New CW Slow Speed CW Traffic Net

Want an opportunity to practice your newly acquired CW skills or brush up on old skills once learned but not used for many years?

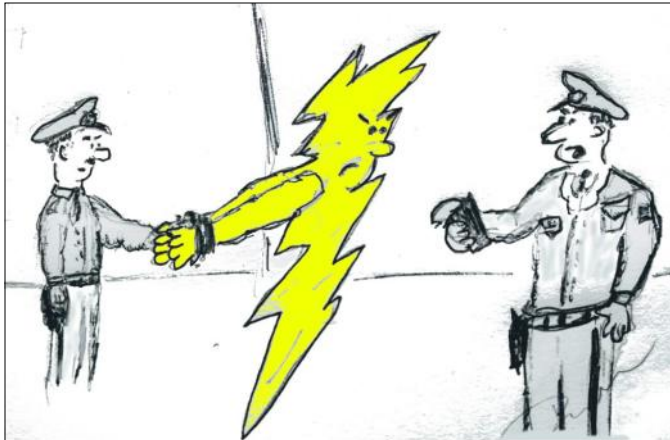
Learn and practice the art and skill of handling written messages, and have some fun along the way. You've asked for it and now we are reviving a slow speed CW traffic net. It is called MARISN or Massachusetts Rhode Island Slow Net and it will be meeting four evenings a week on Monday, Tuesday, Friday and Saturday at 8:30 PM local time on 3598 KHz. [Rob K2MZ](#) has offered to organize and manage this net. He has been a successful teacher of CW and has been active on our various traffic nets. He is welcoming all comers.

Come join us beginning Monday March 22, 2021. Looking forward to seeing you there.

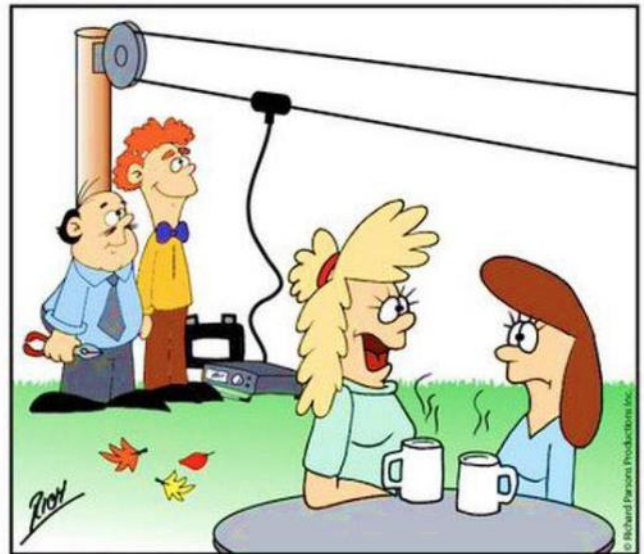
73,  
[Marcia KW1U STM EMA / WMA](#)

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

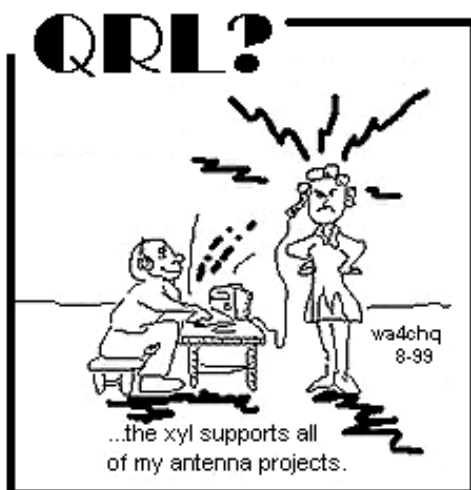
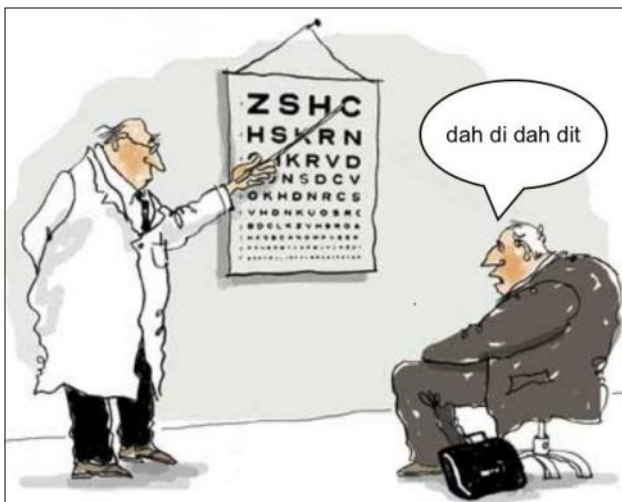




As a new Ham, Tom wasn't sure how a Lightning Arrestor would really work.



LARRY AND MARCEL HAVE BEEN WORKING ALL DAY INSTALLING MY CLOTHESLINE





# HCRA STUFF

HCRA is an ARRL Special Service Club



## What has the HCRA been up to?

HCRA has a wonderful YouTube channel and Vanessa, W1IRL our webmaster has been doing a great job by adding content and Share the Knowledge video's. Not only can you view last months club meeting but a boatload of other video's. She only has so much content and she just did a great video all about How to Access a Weather Frequency Using a Programmable Key.

This is all fantastic but she needs more video's to upload, this is where all club members can contribute. All you have to do is create a short 3 to 5 minute (less than 20 minutes) video that can be added to the HCRA YouTube channel. The videos can be simple or complicated, that's up to you. Need some ideas? Check out a few of the suggestions below or read even more in this months from the shack.

**Please check-out the HCRA You Tube Channel and while you're there don't forget to click subscribe!**

## Below are a few possible video subjects

- How to program your HT
- Basic soldering techniques
- What is Chirp & how it can help you
- Building a Fox Hunting yagi
- How to do SSTV (slow scan TV)
- Satellites and the ISS

### You Tube and other Social Media links

You Tube: <https://www.youtube.com/HampdenCountyRA>

Facebook: <https://www.facebook.com/groups/HampdenCountyRA>

Twitter: <https://twitter.com/HampdenCountyRA>

Instagram: <https://www.instagram.com/hampdencountyra>

So many other possibilities so use your imagination and make a video! You don't need a fancy video camera, use your cell phone, DSLR or any of the many other options. Once your video is completed you can upload it to a DropBox account, share it with Vanessa, W1IRL who will then upload it to the HCRA YouTube channel. If you need any help or have any questions simply contact any of the HCRA board members.

**Member participation is key to a successful club!**

## Future Club Activities

**Field Day:** Not a lot new on this topic but having the vaccines now is a good sign, but just as before we have to wait until more is known on Field Day during a pandemic!

**Fox Hunting:** The fox has been on a winter break but will be returning soon and this time he will be bringing a friend. Double the fun as soon 2 fox boxes will be released!

**Big-E 2022:** Imagine a ham radio demonstration set-up and operated for thousands to see what amateur radio is all about. More to come!

## Hampden County Radio Association

Website: <http://hcra.org>

Facebook: [@hampdencountyra](#)

Twitter: [@HampdenCountyRA](#)

YouTube: [Hampden County Radio Association HCRA](#)

Instagram: [@hampdencountyra/](#)



**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, who knows... you might like it!

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 4/1/21



Our last meeting was all about Clublog with guest speaker & club member, Nick Maslon, KINZ  
Incase you missed it, view it again by clicking this link: <http://www.hcra.org/zb/Mar21.pdf>

Your Log
DXCC Charts
Timelines
QSL Charts
Zone Charts
Log Inspector
Log Matching
League Tables
DXCC Leagues
Zone Leagues
Club Leagues
CDXC Challenges
Super League
Uniques League
Tools
DX Cluster
Log Search
Call Tester
Most Wanted
DXCC Analysis
Propagation
Great Circle Maps
LoTW Sync
ADIF Diff
QSL Archive

## DXCC Leagues

The leagues are rebuilt once per day. Only callsigns active in the last 12 months are included in the league tables. The maximum size of a league is 2000 participants.

<input checked="" type="radio"/> No Mode Filter	<input type="radio"/> CW	<input type="radio"/> Phone	<input type="radio"/> Data
<input checked="" type="radio"/> Rank by DXCCs	<input type="radio"/> Rank by slots	Rank by band: Totals ▼	
<input checked="" type="checkbox"/> 160M <input checked="" type="checkbox"/> 80M <input checked="" type="checkbox"/> 60M <input checked="" type="checkbox"/> 40M <input checked="" type="checkbox"/> 30M <input checked="" type="checkbox"/> 20M <input checked="" type="checkbox"/> 17M <input checked="" type="checkbox"/> 15M <input checked="" type="checkbox"/> 12M <input checked="" type="checkbox"/> 10M <input type="checkbox"/> 6M			
<input checked="" type="radio"/> Current entities	<input type="radio"/> Current and deleted	<input checked="" type="radio"/> Worked	<input type="radio"/> Confirmed
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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	DXCC ▼	Slots	Range
1	W1RM+1	179	293	10	334	317	337	329	336	319	321	339	2775	68 yrs
2	NU1O+1	18	149	9	268	240	326	274	322	231	308	335	2145	33 yrs
3	KK1W+1	136	191	7	269	223	309	277	278	216	232	329	2138	45 yrs
4	NV1Q+3	27	136	0	181	111	308	257	314	232	256	329	1822	42 yrs
5	NF1G	0	156	0	233	249	301	256	263	176	203	319	1837	37 yrs
6	W1PY+1	34	116	0	200	64	246	207	242	130	204	291	1443	11 yrs
7	KX1X	67	127	62	184	145	203	127	203	47	193	252	1358	24 yrs
8	K1VOI	5	64	2	113	51	200	140	163	69	142	247	949	20 yrs
9	K1NZ+1 ★	115	155	86	166	189	187	159	145	82	67	246	1351	10 yrs
10	N1TA+3 ★	109	152	26	189	93	203	94	188	14	129	242	1197	20 yrs
		160	80	60	40	30	20	17	15	12	10			
11	NE1C	63	114	0	151	0	206	0	195	0	152	238	881	19 yrs
12	AB1WT	2	32	1	52	4	128	123	126	64	89	212	621	6 yrs
13	W1AST+1	3	60	9	102	28	166	106	124	10	120	202	728	12 yrs
14	NT1K+2	9	49	2	103	33	184	45	141	47	123	199	736	11 yrs
15	N1FTP	0	7	0	64	0	170	47	119	16	109	184	532	13 yrs
16	WD1S+2	49	57	1	115	23	148	40	95	11	98	176	637	8 yrs
17	AB1XW+1	0	7	1	75	22	110	42	107	29	94	144	487	8 yrs
18	W1TRK	0	3	0	11	0	64	0	34	0	1	79	113	4 yrs
19	N1JIE	2	5	0	23	5	48	22	7	1	4	69	117	4 yrs
20	AB1ZJ	0	0	0	24	0	45	0	0	1	0	54	70	5 yrs
		160	80	60	40	30	20	17	15	12	10			
21	N1FJ	0	0	0	6	0	30	0	16	3	16	51	71	8 yrs

You can link to your club here: <https://clublog.org/league.php?club=189>

**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, who knows... you just might like it!

This is the Clublog for the new year—you can see who has been on the air hot and heavy to start the year!



Home | Settings | Upload | QRS | Donate | Expeditions | Help

Your Log
DXCC Charts
Timelines
QSL Charts
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Log Matching
League Tables
DXCC Leagues
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Club Leagues
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You can link to your club here: <https://clublog.org/league.php?club=189>

# DOTS & DASHES

Things that don't fit anyplace else

## MEMBERS IDEAS WANTED

Here is your chance to be a part of Zero Beat! How is that you ask? Easy, simply write an article about something you love that has to do with ham radio. It can be pretty much about anything but the best and most interesting thing is to make it about something you really enjoy. Ham radio has an endless supply of ideas and interests so put on your thinking cap and come-up with an idea, any idea!

Here's the best part of this whole new idea, you don't have to worry about spelling, grammar, formatting ect ect. All you need to do is send the basic article along with photo's to myself at [kd1ku@arrl.net](mailto:kd1ku@arrl.net) and we will finish the rest.

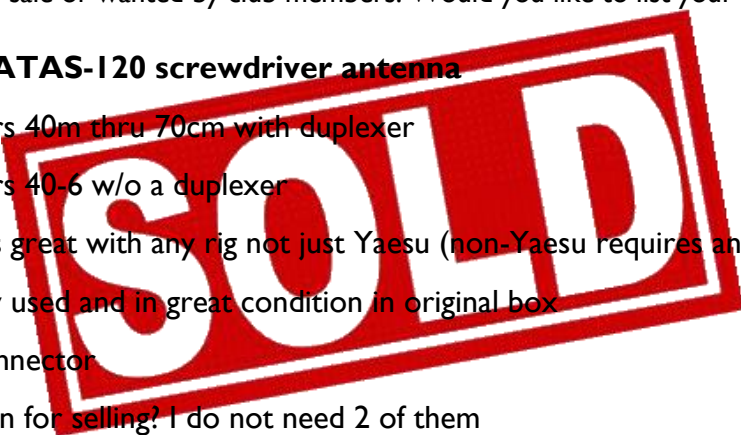
I truly hope you take this opportunity to be a part of Zero Beat, 73, Ken - KD1KU

### For Sale

Items for sale or wanted by club members. Would you like to list your item here? Contact: [kd1ku@arrl.net](mailto:kd1ku@arrl.net)

#### **Yaesu ATAS-120 screwdriver antenna**

- ♦ Covers 40m thru 70cm with duplexer
- ♦ Covers 40-6 w/o a duplexer
- ♦ works great with any rig not just Yaesu (non-Yaesu requires an interface)
- ♦ Barely used and in great condition in original box
- ♦ PL connector
- ♦ Reason for selling? I do not need 2 of them
- ♦ \$285



***Want something sold fast? Sell it on Zero Beat! Send items to: [kd1ku@arrl.net](mailto:kd1ku@arrl.net)***

## APRIL CONTESTS AND SPECIAL EVENTS

### Contests

April 18th, 1800 - 2359 UTC ARRL Rookie Roundup, SSB 10, 15, 20, 40 & 80m <http://www.arrl.org/rookie-roundup>

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

### Special Event Stations

April 18 -19th, 1300Z - 0400Z World Amateur Radio Day - W7W

More special event stations at: <http://www.arrl.org/special-event-stations>

*These are always fun contacts! Most offer a special QSL card, certificate's or both!*



## Local Nets and other Happenings

**Sundays: 0845** Western MA. Emergency Net on 146.94, PL 127.3 W1TOM/R

**Sundays: 0915** Western MA. Emergency Net on 443.200, PL 127.3 W1TOM/R

**1st Monday:** Southwick Regional RACES Drill, 1845, 146.49 Simplex

**Mondays: 1900 HCRA 10 Meter Net 28.375 (Note: new time)**

**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 (N1RLX) Simplex Net, Check-in's 146.94, PL 127.3, then goes to 146.42 Simplex Immediately following the swap net

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

**Thursdays: 1900 HCRA New Ham Net 146.715 PL 100.0 W1BR/R.** Open to all newly licensed hams within the last 5 yrs, returning hams and all HCRA member's.

*Do you have a net you would like to see included here?*

Contact [kd1ku@arrl.net](mailto:kd1ku@arrl.net)

## Club Meetings and VE Sessions

Please contact site / organization to ensure it will meet  
Clubs meet on Zoom, VE sessions are being developed

**1st Friday of the month** at 7:30pm HCRA Meeting.

Virtual meeting's are held via Zoom. Meeting's start with a rag chew session at 7pm followed by the regular Zoom meeting at 7:30pm. <http://www.hcra.org/>

**3rd Friday of the month** 7:30pm MTARA Club meeting.

Meetings are being held virtual via Zoom. Contact a MTARA member for link. <https://mtara.org/>

**4th Friday of the month** 6:00pm, 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 at <https://pvvet.org/> or contact David Cote at [w1fab@arrl.net](mailto:w1fab@arrl.net)

**Second Monday of the month** 7:00pm, Franklin County Amateur Radio Club meeting. Virtual meeting's are being held on Zoom. Meetings will continue on Zoom until it is safe to meet as a group. <http://www.fcarc.org/>

**4th Monday of February, May, August, November** 7:00pm, FCARC VE Exams, <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

President - Larry Krainson, W1AST

[w1ast@arrl.net](mailto:w1ast@arrl.net)

Vice-President - Marcel LaPierre, AA1WH

[aa1wh@arrl.net](mailto:aa1wh@arrl.net)

Treasurer - Duane Pray, KC1FQV

[kc1fqv@arrl.net](mailto:kc1fqv@arrl.net)

Secretary - Paul Kelliher, NF1G

[nf1g@arrl.net](mailto:nf1g@arrl.net)

Programs - Gary Thomas, AA1UE

[aa1ue@amsat.org](mailto:aa1ue@amsat.org)

Membership - John Plaster, K1VOI

[k1voi\\_jp@charter.net](mailto:k1voi_jp@charter.net)

Technical - Najm Choueiry, AB1ZA

[njc2@cox.net](mailto:njc2@cox.net)

At Large - Bob Jeffway, WA1OJN

[wa1ojn@jeffway.com](mailto:wa1ojn@jeffway.com)

Newsletter - Ken Dion, KD1KU

[kd1ku@arrl.net](mailto:kd1ku@arrl.net)

Web Page - Vanessa Oquendo, W1IRL

[webmaster@hcra.org](mailto:webmaster@hcra.org)

W1NY trustee, John, N1JIE

[n1jie@arrl.net](mailto:n1jie@arrl.net)

WB1Z trustee, Vanessa, W1IRL



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

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