



# THE RARA RAG

Newsletter of The Rochester Amateur Radio Association, Inc.  
Founded in 1931

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## WEB BASED APRIL MEETING

SCOTT THEIS, W2LW, RARA VICE PRESIDENT



With the ongoing national effort to stem the tide of COVID-19 and because our demographics place many of us in a high-risk group, the Board has decided to change the April in-person General Meeting to a web-based meeting.

It seems as if the COVID-19 restrictions and safety precautions will be in place for a long while as indicated by the number of events being cancelled far in advance. In addition, more recommendations and restrictions are coming every day. Cancellations include Dayton Hamvention 2020. So, this is a good opportunity for us to try something a little different and keep active!

The meeting is also an opportunity for area clubs to reach out to the Rochester area as to updated plans and club information.

The meeting will start 7:00 PM EDT. To register, go to the following link:

<https://attendee.gotowebinar.com/register/5081567116246792203>

After registering, you will receive a confirmation email containing information about joining the webinar. You can join audio via computer or phone. The webinar will also work on a tablet or smart phone. I recommend you join a little early to give a few minutes for the client software to install. I don't know if there are any issues with older operating systems like, Windows XP or Vista, you'll have to wrestle with that or find an alternative.

We are currently working on a topic presenter for the second half — since everything got cancelled!

Bring your own donuts or snacks and enjoy the meeting at home —  
**Join us online on Wednesday, April 1st, 2020.**

**DO NOT COME TO THE BSA/SWC — YOU WILL BE ALONE!**



K2JD

N2EH

W2EOC

# BOARDZ BUZZ

DON KISER, AC2EV

Ah sPring. The days are getting longeR and what lIttle snow we had is meLting. That means it's time to get outside and start tuning up those antennas or put up a new one. I've been busy this winter collecting some cool ideas FOr new antennas and OOther articles OOf interest. I hope l'LI see you on the air SSoon.

For those of you who have SWR issues the RSGB has developed a new dielectric and new antenna design that aims to improve SWR on all radiating elements.

From their website:

Studies have proven that you should start with an odd harmonic wavelength of hard line made of prefabulated amulite, surmounted by a malleable logarithmic casing. This is to be connected by a nonreversible tremmie pipe to the differential RG175 main winding in the normal lotus-o-deltoid type placed in panendermic semi-boloid to 300ohm ladder line.

[http://www.rsqgshop.org/acatalog/Other\\_Products.html](http://www.rsqgshop.org/acatalog/Other_Products.html)

From the Sundance Mountain Radio Association, a new petition is being filed to enforce the use of FCC call area assignments. The petition aims to require hams that move from one call area to another to re-apply for a new license in their new call area. The intent is to make it easier to identify hams QTH. This policy is similar to requiring a new Driver's license when moving to a new state. More information can be found on their website.

<https://www.k0nr.com/wordpress/2019/04/radio-club-fcc-fix-call-area/>

Recently, our own Tim Brown WB2PAY finished up a session of RXCWG (RARA Xarc CW Group), participants, gathered over the course of a few months to help each other in learning CW. With the sun-spot cycle being uncooperative CW is one of the few modes that always gets through. This hasn't gone unnoticed and the FCC will be approving the re-introduction of the Morse code requirement for amateur radio.

<https://www.kb6nu.com/fcc-to-reinstate-morse-code-test/>

And finally, a clever Russian ham has been playing around with his new Icom and has found what he thinks might be a new mode. Buried deep within the firmware of the Icom IC-1720 is a new 'Auto QSO' feature. It appears that this new function has a bit of AI built in and can automatically recognize calling stations in the CW portions of the band and will perform simple QSOs with the calling stations. A couple of US hams have tested his findings and found that by hooking up the radio to their home network it will connect to a DX Cluster and parse the available station list. I can see this is a very popular feature for busy hams who don't have the time to sit at a radio for hours trying to achieve DXCC. Now it's as

simple as turning on the radio and letting the radio do the rest of the work!

[http://translate.google.com/translate?js=n&sl=auto&tl=en\\_US&u=http://www.radioamator.ro/articole/view.php?id=1205](http://translate.google.com/translate?js=n&sl=auto&tl=en_US&u=http://www.radioamator.ro/articole/view.php?id=1205)

In case you're still wondering, you might want to go back and put together that odd set of capitalized letters in the first paragraph.

## CALENDAR OF EVENTS

**WEDNESDAY APRIL 1, 2020** - RARA General Meeting  
7:00 PM - ON LINE

<https://register.gotowebinar.com/register/5081567116246792203>

**TBD APRIL, 2020** - RARA Board of Directors Meeting  
6:30PM ON LINE

Email request for link to [secretary@rochesterham.org](mailto:secretary@rochesterham.org)

**SATURDAY JUNE 6, 2020** RARA HAMFEST 2020

**SATURDAY JULY 11, 2020** RARA PICNIC 2020

# ROCHESTER HAMFEST 2020

It's Official! The 93rd Rochester Hamfest will take place on June 6th, 2020, at the Hilton Exempt Club, 137 South Ave, Hilton, NY 14468. This is our 3<sup>rd</sup> year at this site and we are looking forward to another successful event!

General Admission is from 8 AM to 2 PM.  
Vendors may enter and setup at 7 AM.

Detailed directions and other Hamfest-related information will be in the Hamfest edition of the Rag and on the RARA website at <https://www.rochesterham.org/hamfest.htm>

## Saturday:

Various shifts from 5:30 AM to 4:00 PM

Assignments include:

- Vehicle parking guidance
- Entry ticket sales
- Raffle ticket sales
- Country Store
- Cleanup

Are you ready to sign up? [Click here to sign up now!](#)

Please mark all times or tasks for which you are available. Please leave a comment such as "interested in working on 2-hour shift. Prefer morning."

Once people start signing up, we will put you into specific timeslots and notify you via email to confirm that you are OK with the time slots assigned to you. We will also post the volunteer schedule on the Hamfest website for reference.

Watch future RAGs and <https://www.rochesterham.org/hamfest.htm> for updates!



## Hamfest Volunteers

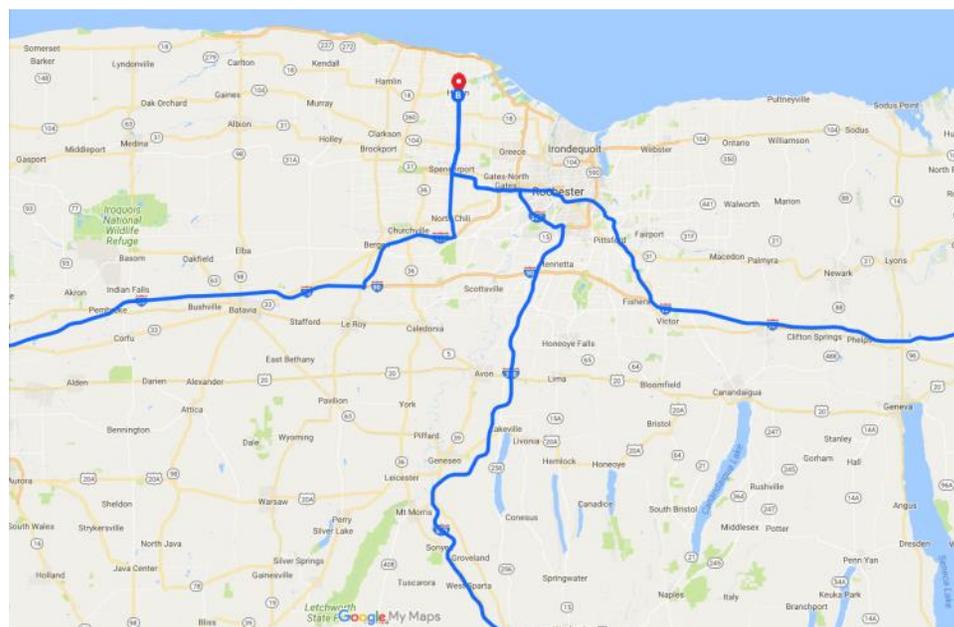
We continue to gather raffle prizes, organize presentations and work with vendors, so now it's time to start recruiting volunteers!

Want to help in this year's Hamfest?

Making this event a success requires your help.

We need volunteers in various areas:

**Friday:** We need your help a few hours Friday afternoon to setup indoor space, flea market parking layout, signage and free parking demarcation.





## EDUCATION

TIM BROWN, WB2PAY, EDUCATION COORDINATOR

### RARA LICENSE COURSES 2020 Winter/Spring License Classes

**TECHNICIAN CLASS** TECHNICIAN CLASS at RIT has been suspended due to COVID-19. Contact mailto:[education@rochesterham.org](mailto:education@rochesterham.org) for additional information and options.

### RARA ACADEMY WORKSHOPS

**March 14th -- FLDIGI- Digital software** - If you missed the class, the slides and video will be on the RARA Website in the Academy section.

**April 11th -- DSTAR, DMR & FUSION MODES** - In light of increasing social gathering restriction guidelines, the **April Academy has been cancelled**. We hope to reschedule at a later date.

**May 9th - PARKS ON THE AIR - LOCATION TO BE DETERMINED**  
Portable Radios and antennas - everyone can get on the air.  
-Presenter will be Karl Heinz Kremer, K5KHK

Latest Academy information is available at [https://www.rochesterham.org/rara\\_academy.htm](https://www.rochesterham.org/rara_academy.htm)

## THE ELMERS CORNER

**Dan Waterstratt, W2DEW will host the May 6th session from 6:15 to 6:45pm prior to the regular meeting.**

Dan has an extensive electronics background. Antennas, building equipment and station setup are some of Dan's areas of interest. Bring your questions to our Elmers Corner.

As Education Coordinator, I recently surveyed RARA's Elmers to determine their areas of interest and the radio skills they possess.

I am impressed with the knowledge and experience of our Elmers.

Some of their Radio Skills are: Antenna installations, Antenna Testing, Arduino, Raspberry Pi, Circuit Design, Equipment repair, Kit Building, Home Brewing, Chirp Programming, Morse Code, Portable Operations, Battery Technology, Digital Modes, FT8, Star, DMR, Fusion, Grounding, Station setup. These are just a few areas that the Elmers can be of assistance.

Many of our Elmers have similar skills.

When you have a question, concern, need help on a project or wish to visit an Elmer's station, please direct your inquiries through the Education Coordinator at [education@rochesterham.org](mailto:education@rochesterham.org)

### Silent Key

Dick Kreutter  
WA2IKC  
March 2, 2020

# PUBLIC SERVICE REPORT

MIKE MOORE, KC2NM, PUBLIC SERVICE COORDINATOR

When you volunteer with RARA, you help: educate the public about the Amateur Radio Service, welcome newcomers, encourage self-training and skill advancement and bolster a nationwide emergency communications network. RARA provides the primary communications and logistics support for many high-quality charity events this year and will make a key impact in the success of these events and the worthy causes that they support!

The American Diabetes Association has scheduled the Tour de Cure volunteer training session for Monday June 1 6:15 - 7:30 pm . The meeting will be held at the Webster Parks and Recreation 1350 Chiyoda Dr, Webster, NY 14580. This building is located just north of where the ARES trailer is located on the day of the tour.

Our first public service event, the Tour de Cure is about 3 months off. Now would be a good time to verify the operation of your mobile communications and APRS gear. Last year, there were some stations using a cell phone based APRS reporter. APRSdroid is an Android application for Amateur Radio operators. It allows reporting your position to the APRS (Automatic Packet Reporting System) network, displaying of nearby amateur radio stations and the exchange of APRS messages. For iPhone APRS Mobile 4 OpenAPRS is available on the App Store for iPhone and iPad.

Please take a minute to visit our Public Service webpage and sign up for a few of our great events, all meant to benefit the health of the community where we live and work in one form or another. Feel free to bring along a friend or spouse even if they are not a HAM, the more hands on-deck we have the smoother the operation. This is also a great opportunity for new HAMS to sharpen your radio skills. All you need is a mobile and/or portable VHF and/or UHF radio and a desire to get out of the shack and really do something worthwhile to help yourself and others.

Hope to see you out there this year!

[http://rochesterham.org/public\\_service.htm](http://rochesterham.org/public_service.htm)

Please mark your calendars for our upcoming RARA Public Service Events

<b>Tour de Cure</b>	Xerox Campus Webster	Saturday	June 13, 2020
<b>Bike MS: ROC the Ride</b>	Genesee Valley Park - Rochester, NY	Saturday	Sept 12, 2020
<b>Fairport Lift Bridge Regatta</b>	Erie Canal – Fairport, NY	Saturday	Sept 19, 2020
<b>Pumpkin Patrol</b>	Overpasses of the New York State Thruway	Friday & Saturday	Oct. 30-31, 2020
<b>Holiday Science &amp; Technology Days</b>	Rochester Museum & Science Center	Monday - Wednesday	Dec. 28-30, 2020

# AWA LEARN IT, BUILD IT, FIX IT CLASSES

BOB HOBDAY

This class series will teach the fundamentals of audio and electronics, how to build a tube type guitar amplifier kit, and how test and repair your kit. The class will be held for 5 Saturdays beginning April 25<sup>th</sup> from 9 am to 1 pm at the Antique Wireless Museum. The cost of the class series is \$150 and participants will have to buy a tube Guitar amplifier of their choice to build and enjoy.

The classes will learn about the science of music and sound, basic electronics, amplifiers and amplification, soldering 101, and building your amplifier kit. Well known audio guru and technician David Minchella, KE2GE will teach the course.

For more information, please go to <https://richardn1.sg-host.com/homepage/learn-build-fix-classes/> or contact Bob Hobday at [Director@AntiqueWireless.org](mailto:Director@AntiqueWireless.org)

Registration form at the end of this RAG.

## SKYWARN™ TRAINING

Wednesday 4/22/2020 7:00 PM

Location: Monroe County Office of Emergency Management  
1190 Scottsville Rd, Suite 200  
Rochester, NY 14624

SKYWARN™ is a national effort to save lives during severe weather emergencies with an expanding network of trained weather spotters. The services performed by SKYWARN™ spotters have saved many lives.

The National Weather Service has a number of devices for detecting severe thunderstorms. Included in these are Doppler radar, satellite, and lightning detection networks. However, the most important tool for observing thunderstorms is the trained eye of the storm spotter.

By providing observations, SKYWARN™ spotters assist National Weather Service members in their warning decisions and enable the National Weather Service to fulfill its mission of protecting life and property.

Storm spotters are, and always will be, an indispensable part of the severe local warning program. Anyone can become a SKYWARN™ spotter for the National Weather Service, all you have to do is attend one of our Spotter Training Sessions. There is no charge for the training.

SKYWARN™ training sessions are held throughout our area of responsibility based on demand. SKYWARN training sessions for Severe Convective Weather (Thunderstorms, Tornadoes, Flash Floods, etc.) are conducted from March through May. SKYWARN training sessions for Winter Weather are conducted from September through November. The basic training session provides a brief overview to the National Weather Service (the organization and our responsibilities), the equipment we use (including capabilities and limitations), and basic severe weather meteorology (including how thunderstorms, severe thunderstorms and tornadoes form). Training sessions last about two hours.

Attendees are instructed what types of severe weather the National Weather Service is interested in hearing about and are given an 800 telephone number for 24 hour access to make reports directly to the NWS forecasters.

**IMPORTANT UPDATE:** Following the latest recommendations from the CDC and NWS Leadership on social distancing for Coronavirus COVID-19, the NWS Buffalo SKYWARN Training program has been suspended through at least the end of April. All SKYWARN Training dates through the end of April have been cancelled.

The two training sessions in May are still scheduled for now, but these may also be cancelled as the situation evolves.

## BSA RECRUITING CW & SATELLITE OPERATORS FOR 2021 NATIONAL JAMBOREE

MARK PEDERSEN, KC2UES



The Boy Scouts of America's National Jamboree is scheduled for July 2021 and the operators of the Amateur Radio Station are seeking licensed operators, especially those with Morse code skills.

K2BSA is the BSA Amateur Radio Station and is recruiting for 31 positions to staff the demonstration radio stations, radio merit badge classes, satellite communications station, and the front desk. Focusing on the theme of the event, *Face the Challenge*, K2BSA is concentrating on bringing more CW to the

event and expanding its satellite station into more of an experience with its own classroom. Morse code interpreter strip testing will be offered, along with an area to practice CW. Additionally, the station will have an area for experiencing WebSDR / OpenWebRX in a hunt for digital and analog stations across the RF spectrum.

Icom is the supplier of radios for K2BSA along with DX Engineering for the connections and antennas.



A view of the [2019 World Jamboree Report](#) will show you the station and give you statistics likely to be repeated at the National Jamboree in 2021.

The National Jamboree dates encompass the latter half of July 2021. Assignments at the K2BSA station run as follows: Full (7/17 – 7/31); First Half (7/17 – 7/24); Last Half (7/24 – 7/31). You can volunteer for any of those date ranges.

I worked at the National Jamboree in 2017. It was a rewarding experience. We resided in large two-man tents on cots, and had access to warm showers daily, along with three plus meals per day (or you could purchase food from the café). Imagine being able to “play radio” most of the day, and sharing your enjoyment of this hobby with dozens and dozens of Scouts.

You can express your interest in working at the Jamboree by filling in the survey at <http://k2bsa.net/k2bsa-2021-jamboree-staff-survey/>

Registration for the Jamboree is at <https://jamboree.scouting.org/jamboree-service-team/>

## DONATION TO RIT

JIM STEFANO, W2COP AND TIM GUYOT, KB1POP, RARA PRESIDENT

One of RARA's main goals is to help get more people on the air, so when K2GXT (RIT's Amateur Radio Station) requested a donation, we evaluated their goals and sent \$250 for antenna repairs.

When I was a student, we replaced a deteriorated G5RV with an OCFD, but we never got the 20m/40m beam working - That's what the K2GXT crew did with our donation.

The HF beam is a 2 element wire beam that was made in Italy. The students went through the whole system and:

- Replaced jumper cables and installed new connectors in the clubroom;
- Repaired connections in the antenna junction box on the roof that were completely corroded;
- Climbed the tower and made repairs to wire elements and the baluns on each half of the beam;
- Lubricated the Hazer section and hand crank on the tower;



Some of the donated funds were also put towards the purchase of a KiWi SDR. The club's other remaining funds have now been spent purchasing SDR receivers (including a Kerberos SDR) and antennas for this year's IMAGINE RIT. K2GXT has prime space in the Field House (extremely hard to get) and the theme is Software Defined Radio, “There is a world you can't see surrounding you”.

## POTA NEWS

KARL HEINZ KREMER, K5KHK

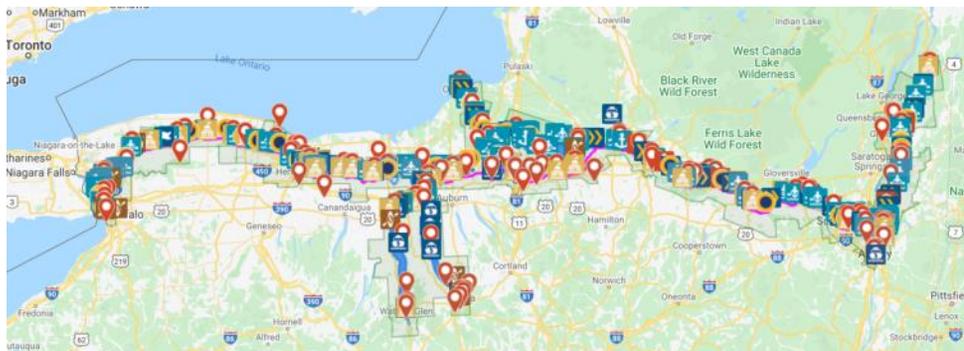
I hope you were able to catch my POTA presentation during the January '20 monthly meeting. If you missed it, you can watch it on YouTube:

<https://youtu.be/TrcEgpeXaxo>

Here are a few updates to what I said during my presentation:

### One New Park in New York State

Even though I said that there would not be any new parks added until we activate a few currently un-activated parks, the POTA program has started to add new parks. We gained one new park in New York. This was not planned. It was a lucky coincidence. I have not yet submitted a list of new parks to the program (I am still working on that), but I had a question about one specific New York entity, and at the same time, a brand new Texas park had to be removed before it could get activated for the first time. So that Texas number got assigned to the park I inquired about. And there it was, a new park for us to activate in our own back yard. When you drive on the express ways in our area, you may have noticed the brown signs next to the road indicating that you are “Entering the Erie Canalway National Heritage Corridor”. That “Erie Canalway National Heritage Corridor” is now an official POTA park with the reference K-6532. Here is an overview of the map:



(map is from the official <https://eriecanalway.org> web site)

Even though your backyard may actually be in the corridor, you still have to be on state or federal land to activate the park. POTA does not allow activations from privately owned land. I found a good spot just five minutes from my house (a NYS boat launch), so this will be my go-to place for a “repeat offender” award.

### 2fer Activations

What is a “2fer”? A number of programs (e.g. the ARRL NPOTA program from 2016) allow a parallel activation of two entities: You just log every QSO for each entity you are in, without having to make 10 contacts for the first entity, followed by 10 contacts for the 2<sup>nd</sup>. For POTA you had to assign each contact to one specific location, followed by the second and the third and so on. This was changed recently, so if you happen to find yourself in a location that is a park in a park (the POTA equivalent of a [Turducken](#)) you can log each QSO for all the parks you are in. Remember, the other QSO participant does not even have to know that you are activating a park, so there is no need to announce that you will log the QSOs for multiple entities. Even though you don’t have to, I would try to mention both locations when calling CQ or acknowledging a contact. A few days after the park got added, I did an “ATNO” (All Time New One) activation with a nice pileup and got 53 contacts in 35 minutes on my way to the March RARA meeting.

### New Vermont Mapping Coordinator

We are filling more and more positions for the state mapping coordinators and I took on Vermont in addition to what I do for New York. They only have 102 parks, so not a big deal after verifying and correcting 630+ parks for New York. The main reason for that was that on a recent trip to Vermont, I found a problem with one location and when I tried to report it, there was nobody to report it to – and no prospects in the pipeline. So, if you have updates for Vermont, send them to me.

### Personal POTA Update

In addition to these “official” updates, here is a personal POTA update: As many of you know, I’ve been learning CW for a while now, and one of the main motivators behind that was that I could use it for POTA activations. I’ve now had two

activations for which I used CW. The first one was just to prove to myself that I could do it, and second one was to actually finish an activation that I could not finish with just SSB: I started out with only two SSB contacts, and then silence... I switched to CW and added 13 more QSOs within 10 minutes – and ended up with my first RF burn in a long time, but that’s a story for another time.

## I CAN HEAR YOU NOW!

FOREST SHICK, WA2MZG

Before we get started – a warning!!

**WARNING:** Two connections for this project are made to the 120VAC power line. One connection is directly to the power line and the other is through a switch. There is NO protection on these 2 lines except the insulation on the wires and your common sense. Be sure power is removed from the controller before opening the case and making any modifications. If you are not familiar with working with 120VAC equipment, ask for help from an experienced person.

This project is a Digital Interface to the HyGain, CD-45II Rotator Controller.

For the past few years, I have been considering a simple interface to my rotator controller. Currently you have to hold down 2 levers (Brake and CCW or CW) until the antenna has changed heading. It could be up to 50 seconds to make the full 360 degree rotation. My thought was - wouldn’t it be nice to dial in a new heading and push a button and the controller handles the rest.



As I was writing the previous article, I came up with the idea of the antenna automatically changing headings.

The KX3 has a scan function. It could scan a range of frequencies and the antenna would automatically change headings. For example I might program the KX3 to scan 50.0 to 50.4MHz listening for activity. The antenna might turn 45 degrees every 15 minutes. I would sit in the living room and listen for any activity using the Bluetooth speaker.

The following is an overview of my project.

First, I would like to thank Jeff Sonstein, KD2RRB for ideas to solve a heading problem. Karl Heinz Kremer, K5KHK for guidance in breaking the software into smaller isolated files for easier design and maintenance. Tim Barrett, K9VB for loaning me his book “Arduino for Ham Radio”. Finally, Mike Moore, KC2NM for the suggestion of the 4 relay board – that saved a lot of wiring!

The digital interface is relatively simple. It consists of an Arduino NANO, a DS3231 real time clock, a 4 line by 20 character LCD, rotary encoder, 4 relay module, 3 LEDs and a 12 to 5 volt power supply module.

## Basic Operation

The rotary encoder adjusts all parameters by CW or CCW rotation and then pressing the knob to accept the new parameter.

The LEDs, 1 for each relay indicate which relays are activated.

The real time clock was added so I would have a UTC clock in a convenient location in my shack.

The power supply allows me to connect the controller to my station 12VDC and provides enough current to handle relay activation.

Only 3 relays on the board are used. These are wired in parallel with the 3 switches on the front panel of the CD-45II.

## Functions

### Erase EEPROM

Zero and span calibration points, heading step size and time step size are saved in the EEPROM. In this mode you may erase the EEPROM and start with default values, if necessary.

### Calibration

This project is based on a rotator controller that indicates antenna heading on an analog meter. In the rotator housing, there is a potentiometer that is swept as the antenna turns. This provides a current through the analog meter giving a deflection relative to the heading of the antenna. The scale is marked off in 5 degree increments.

The calibration function attempts to align the calculated digital heading with the analog meter. First be sure your meter has been calibrated: zero and span.

Next move the antenna to the CCW 180 position. This becomes the zero point. Then move the antenna to the East, 90 degree position. This becomes the span point. These values are saved in the EEPROM.



The values displayed are the A/D readings. The third line shows the previous calibration points. The second line displays the current calibration points.

### Set Date and Time

In this function the current UTC time may be entered. The “^” cursor is under the value to be modified. Turn the rotary encoder to select the new value and then press the rotary encoder button to accept the value and move to the next field. A final press of the button, after setting the seconds, will set the time of the real time clock.



If a CR1220 battery is installed in the clock, the time will be available whenever the unit is powered on.

### Operate

In this mode, the display indicates the current antenna heading (88) and the new or desired heading (335) to turn to.



To select a new heading, turn the rotary encoder until the desired heading is shown under **NEW**. Press the button on the rotary encoder. The antenna will begin turning and the progress is shown on the display. The headings are only available in 5 degree increments. The software will attempt to locate the new heading within + or - 3 degrees.

There are a few factors that impact the accuracy of this move. The motor current flows through the ground lead of the rotator potentiometer. When the motor is stopped, the momentum from the rotation causes the antenna to swing back and forth for many seconds. Any wind present will impact the accuracy of the movement. If the CD-45II is not calibrated, this throws off the calibration of the digital interface.

The UTC time is also displayed in this mode.

### Setup Scan

The scan mode has two parameters that may be set: heading step size and time step size.



The heading step size is the number of degrees the antenna will turn at the beginning of each new time interval: 15, 30, 45 or 90 degrees. The headings are aligned to divide into 360 evenly. For example if 45 degrees is selected as the heading step size, the antenna would change headings to: 180, 225, 270, 315, 0, 45, 90, 135 and 180. Then reverse direction.

The time step selection is 10, 15, 20 and 30 minutes. These are not aligned to current time. If you select a time step of 10 minutes, at the end of 10 minutes, the antenna will rotate to a new heading and then the 10 minute delay will occur.

This setup is saved in the microcontrollers EEPROM.

### Scan

In this mode, you may start or stop scanning. The display indicates the current heading, the next heading and the elapsed time till the next heading change.

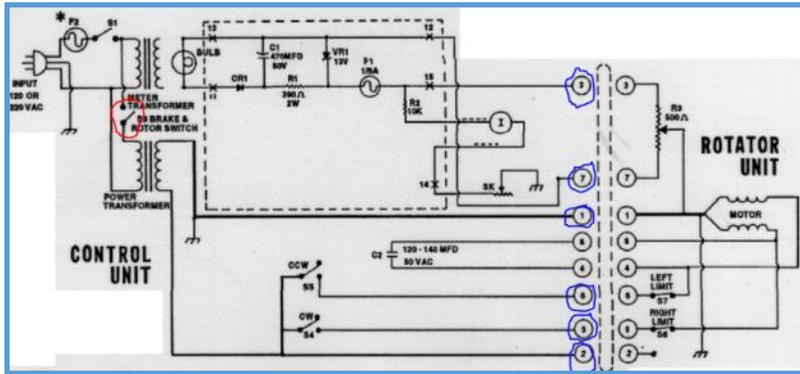


When the time equals the time step, the antenna will turn to the **Next** heading.

You may terminate operation by pressing the rotary encoder button when the antenna is not moving.

## CD-45II Schematic

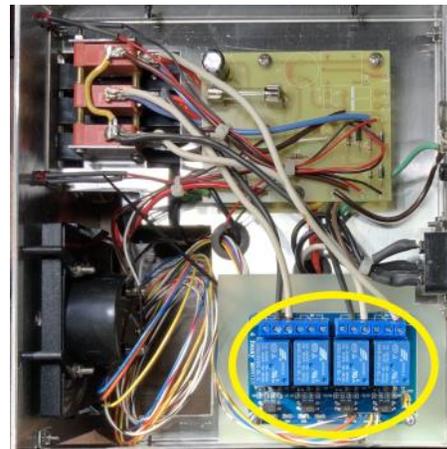
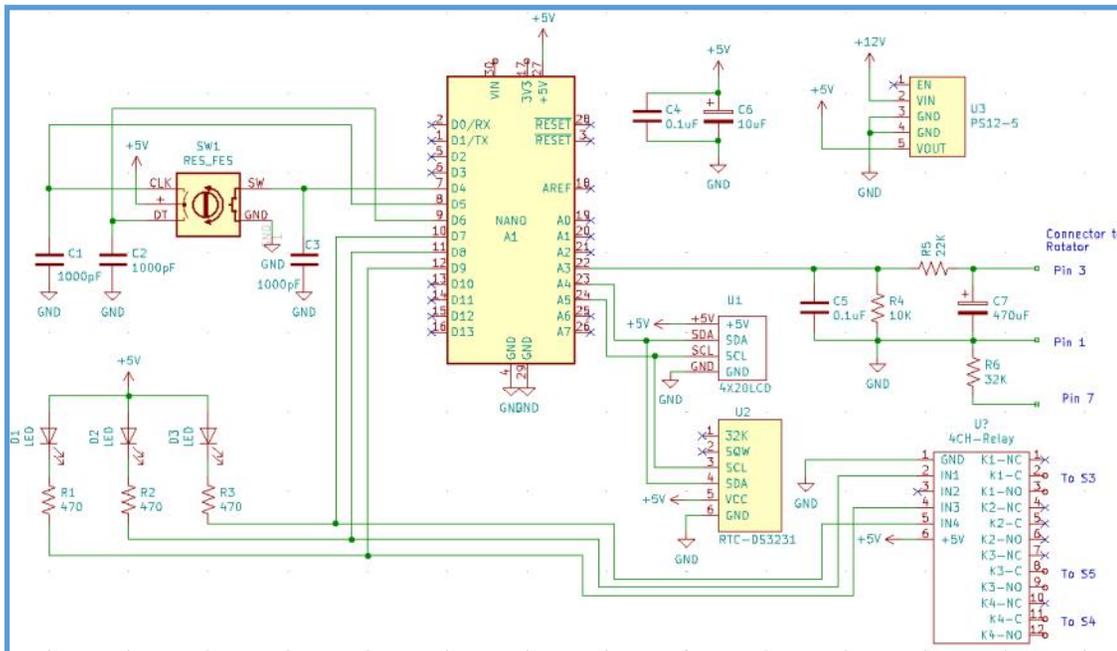
Below is the schematic of the HyGain controller. It is an incomplete schematic.



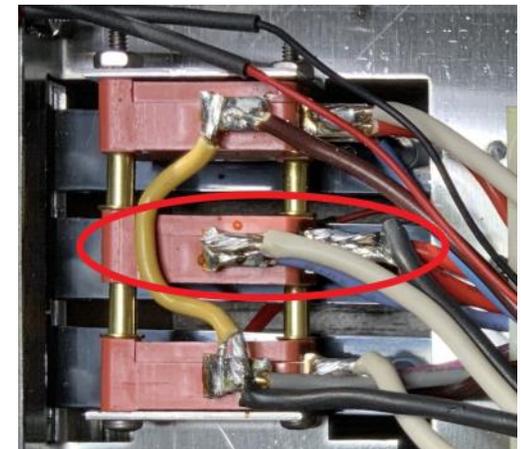
On the left of the schematic, there is a red circle around a switch. This switch has line voltage on it. You will be connecting one of the relays in parallel with this switch.

On the right of the schematic, the upper 3 blue circles go to the NANO's A/D converter. These are the analog signals to be measured for determining heading. The lower 3 blue circles will connect to the relay board placing 2 of the relays in parallel with the CW and CCW switches.

This simple schematic includes all the components including the relay board. It indicates the connections to the CD-45II.



This shows the placement of the relay board in the controller chassis.



This shows the 3 switches that will be connected to the relay board. The red circle indicates the switch with 120VAC present.

When connecting these switches to the relays, be sure to use appropriate gauge insulated wire.

### Major Components:

- Arduino NANO
- Pololu D24V50F5 Power Supply
- 20 character by 4 line LCD with IIC
- Adafruit DS3231 Precision RTC
- Jbtek 4 relay module
- Rotary encoder with pushbutton and nut

# MY PERENNIAL WINTER SWL CAPER – TRY IT

BY BILL HOPKINS, AA2YV

Hams collect radios, and some of them actually work. Sometimes hams repair radios or even build them, and some of these work too.

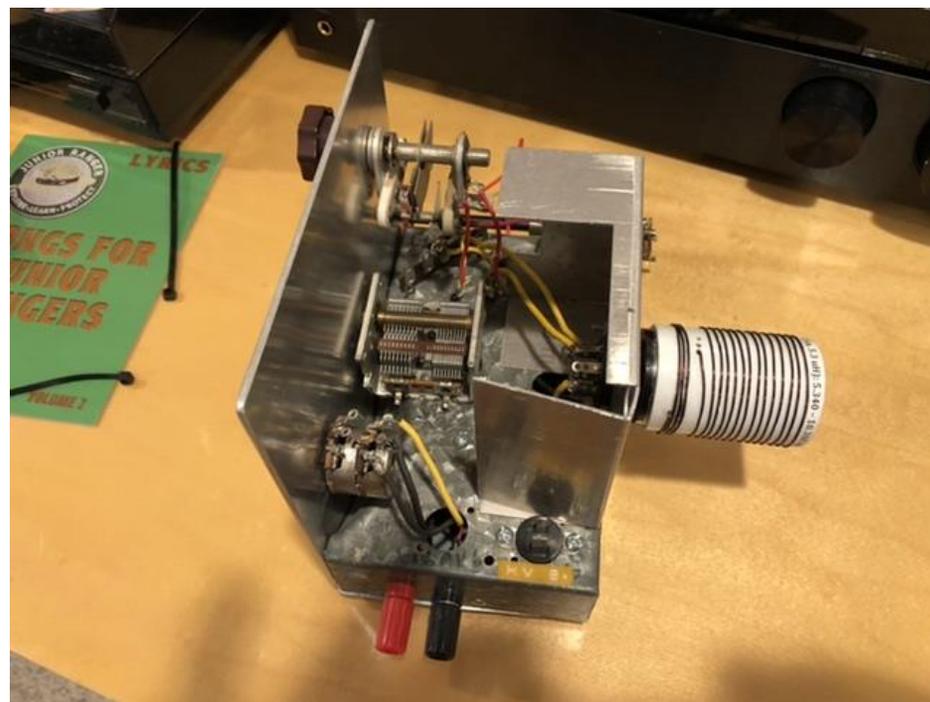
It's all fun, no matter the outcome, but the listening part is the best. Winter and early spring are the seasons I choose to become an SWL and see how far I can pull in signals, usually CW but not always.

There's one sideband transceiver type I always put on line: one of my Heathkit Hot Water single banders (75, 40, 20). The HW22 for 40 meter SSB is my favorite. It gives me about 60 watts out. Hams out there get a kickout of hearing that crisp Heathkit sound, and they marvel. Either they are young and can't imagine what a glowing green box looks like, or they had one and they reminisce about their building project. *Here's my HW32 for 20 meters.*



My glowing favorites are the receivers, the Drake 2Bs, the Allied AX-190 (solid state); Hammarlund HQ129X; the WWII Army/Navy BC348; HQ170, and the cute little Heathkit HR10B (with an added audio amplifier 12AT7). You can't beat 'em for all the fun you create.

So how do you low-brow and get maximum enjoyment? With a simple regenerative receiver, of course. You can scrounge up one using an old broadcast receiver chassis and assorted add-ons, running either a 12AT7 or a 6SN7, both dual triodes. You'll need 6.3VAC for the heater and 100VDC for the signal (or string 10 nine-volt batteries together). Start building now and you'll be ready for next winter. *Here's the BC-Special.*



This winter I broke out my 1946 regen, based on the ARRL model that ran in the Handbooks from 1945 through 1950, at least. The front panel can be aluminum or galvanized tin. This chassis is made of 3 pine blocks and a piece of Masonite. Build it, and you learn a lot. Operate it and you become a "pro," riding the waves.

I chased mainly DX. My 80-foot random wire swayed in the winter wind but gave me no trouble (I never take it down). In fact, I had minimum QRN; where the signals were faint, they were still quite clear in my high-Z headphones. Each time I copied a nice signal, I chose to send an email to one in the QSO, using their QRZ-dot-com info.

I received many replies. I wrote them the usual: "Dave, I've been playing the SWL for a few nights now, listening with my 1945 model regenerative receiver that I found in the 1946 ARRL Handbook. Here's my setup:

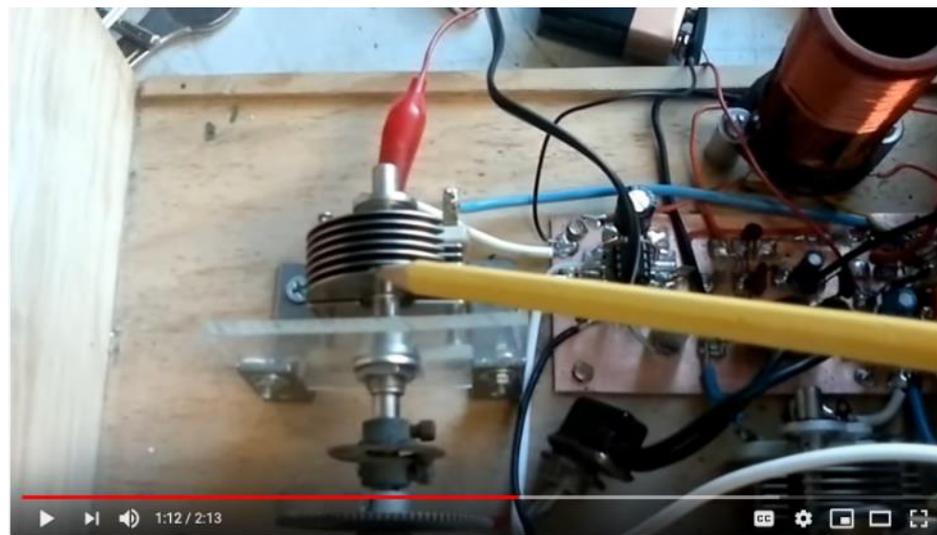


From K5KG I got: "Hello Bill, thx for the nice SWL report. Your Regen receiver looks very cool! Wow, I haven't gotten a SWL report in many years. 73, George."

One ham said receiving my report pleased him more than getting a distant WSPR reply.

From Brooks: "Good morning Bill! That's really cool. Hopefully we can make a QSO sometime, would love to hear how it transmits" [?????].

And from Pedro Arnaud (6H1YZY, Mexico): "Hello Bill, beautiful work, congratulations!" Pedro wrote a second time (**surprise!**): "Thanks for your mail and report, regenerative receivers are great, I also have some homebrew rigs, take a look at <https://www.youtube.com/watch?v=O9QQ6GkiINQ&t=33s> . Mine is solid state, and I spend hours listening the bands. Best 73." Pedro built one of Charles Kitchin's regens using a FAR Circuits board (cost: \$6.00).



So that's what I got for my hours of winter SWLing. I could have used my SWL call sign, WA2111SWL, but I forgot to haul it out.

# KEUKA LAKE AMATEUR RADIO ASSOCIATION

## UPCOMING

We sponsor two nets on our 2 meter repeater system and on Echolink. Our repeaters are located in:

Bath 145.190 with a PL tone of 110.9 (tone squelch will assist you tremendously).

Jasper 147.330 with a PL tone of 110.9 (again tone squelch will assist you).

Arkport 147.045 with a PL tone of 110.9 ( and again, tone squelch is a big help).

Echolink N2AAR-R Node is 578244

### 1) Sunday Evenings at 8:00 p.m. -

This is the KLARA “workhorse” net.

We use this space to pass information on upcoming and past events, list amateur radio equipment wanteds and for sales (this is a rather rare activity), and to stay in touch with other club members.

We also play a short game of trivia during this time.

### 2) Tuesday Evenings “Fun Net” at 7:00 p.m. -

This was originally started as a “round table” net by long time club member Dick Walters K2RDW (sk). The purpose was ... fun! Lively discussion, maybe trivia, maybe another game (if we can figure out one which could be played on the radio).

With Dick’s passing, this net became somewhat less active.

We are currently in the process of re-invigorating this net, starting with running it as a directed net. Our President, Gary Stratton, is serving as the initial net control person.

In addition to the above nets KLARA also sponsors an HF round table net Monday - Friday mornings at 9:00 a.m., with pre-net radio checks at 8:45 a.m. Net details are usually available on the 2 meter / Echolink system, also at 8:45 a.m. This net is conducted in the vicinity of 3.896 Mhz.

Upcoming Events – Obviously, all events are subject to change as directed by the Coronavirus situation. Any changes will be listed on our website ([www.klara.us](http://www.klara.us)).

In addition to our regular club membership meetings on the second Wednesday of each month at the Civil Defense Center, located on Route 54 in Bath, we have the following events scheduled, in the near term:

### 1) VE Test Session

Our next VE test session is scheduled for May 2, 2020. We usually start these at 10:00 AM, local time. Usually they are held at the Civil Defense

Center on Route 54 in Bath, NY

The Steuben County Office Building is currently (as of March 16<sup>th</sup>) closed, due to possible contamination by the Coronavirus. The Civil Defense Center is the designated reporting location for critical county employees, and may not be available for our use.

Please monitor the website above for updates, cancellations, etc.

### 2) 2 meter FM Simplex Phone Challenge

Here again, subject to the Coronavirus situation, this is scheduled for May 9<sup>th</sup>, 2020; with the contest period running from Noon to 3:00 p.m.

I would not expect to see Coronavirus have a big impact on this, as the number of participants is small (usually about 15) and the distance between participants is large ( often 10 miles, or more). We will, of course, comply with whatever travel restrictions are in place on the contest date!

Full Challenge details are available for download from the club homepage.

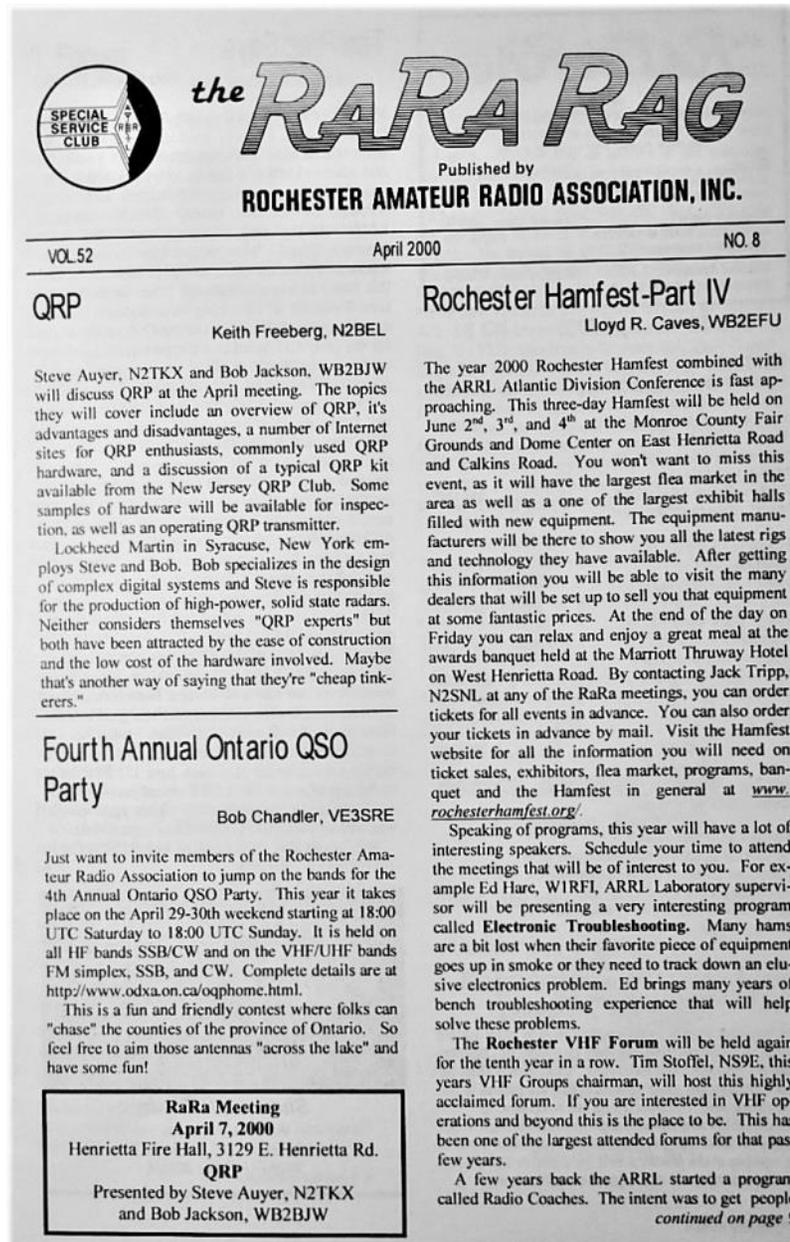
# RAGS OF THE PAST

ED GABLE, K2MP, RARA HISTORIAN

20 Years Ago, April 2000

Wow, this was a large, multi-page issue, so let's get started. Those attending this April meeting were entertained and enlightened by two out of town guests from the Syracuse area. Steve Auyer N2TKX, and Bob Jackson WB2BJW, both with that city's Lockheed Martin Corporation, presented a program covering the topic of QRP, or low power operation. The pair showed hardware typical of the period as well as explained on-air operating techniques that would enhance your chances of a QSO with less than ether blasting signals. Writing for the Rochester Radio Repeater Association, RRRRA, was Tom English N2YJV, who told of their upcoming March meeting where the mysteries of DSL would be explained as well as inviting all Hams to their annual ham auction in April. Judy Stonehill, N2KXS (sk) in writing her YL Forum, introduced to readers information on the state-wide YL group, SKYLARK, or the Second Area YL Amateur Radio Club and their nets, newsletter and periodic luncheons. On a continuing basis, Lloyd Caves N2PU, wrote Part IV of his articles introducing the Rochester Hamfest. This issue told of newly added programs with ARRL's Ed Hare W1RFI, talking on Electronic Troubleshooting, the Rochester VHF Forum hosted by the Rochester VHF Group and its Chairman Tim Stoffel NS9E, and continuing the local theme brought RARA's Radio Coaches led by Peter Fournia W2SKY. This issue had no less than four guest authors with full page articles on varying topics. First was still contributing author Bill Hopkins AA2YV, a Language Professor from Nazareth College. Bill wrote an interesting and insightful article where he compared conversational Morse CW to the use of any other language. Next we found member Howard Greenwald, KC2ERG, a local attorney specializing in patent law, who wrote to assist members in traveling through the hazards of dealing with the FCC and Utilities to resolve RFI problems. A very entertaining article followed from local educator and now Operations Manager at the Antique Wireless Museum, Ronald Roach W2FUI. Ron has travelled to China many times, learned the language and immersed himself into assisting Chinese schools in adding ham radio to their curriculum. Finally, Dick Goslee K2VCZ, then RARA Treasurer, studied and shared the history of RARA Presidents, emphasizing those still living, which was 34, at the time of writing. The Antique Wireless Association Museum, heard from by Ed Gable K2MP, Curator -Director, wrote to announce the spring 2000 opening of the museum. Pictured in the article was the photo of a 1920's Paragon Tuner and Detector, beautifully restored by George Platteter, AA2FO. The Rochester VHF Group announced their annual Awards Banquet would be held at the Burgundy Basin Inn, with Len Gessin WA2ZNC, MC and Banquet Chairman. Spring License Class Chairman, Tim Magee, WB2KAO, informed readers that Technician, General and Extra class license instructions were in process. In Ed Gable's (K2MP) DX Report column you might recall these active DXpedition's cranking out some atno's: (all time new ones) FO0AAA Clipperton, FO0CLA Marquesas, 9E1S Ethiopia, VP6BR Pitcairn, VK9WL on Willis Isl, BQ9P Pratas and JN1HOW/JD1 Ogasawara (sri Lloyd). Ed Holdsworth N2EH, wrote to confirm ten public Service events scheduled between May and October 2000. With regret it was

announced that Clarence R. Van Der Brooke, W2OUM was reported as a Silent Key. From the Want Ads you could buy a fully loaded Kenwood TS-940S from Don Taylor, KB2BU, for \$875.00. Sherwood Snyder W2KFU (sk) Attorney at Law, remained a long term advertiser.



**the RARA RAG**  
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VOL 52 April 2000 NO. 8

**QRP**  
Keith Freeberg, N2BEL

Steve Auyer, N2TKX and Bob Jackson, WB2BJW will discuss QRP at the April meeting. The topics they will cover include an overview of QRP, it's advantages and disadvantages, a number of Internet sites for QRP enthusiasts, commonly used QRP hardware, and a discussion of a typical QRP kit available from the New Jersey QRP Club. Some samples of hardware will be available for inspection, as well as an operating QRP transmitter.

Lockheed Martin in Syracuse, New York employs Steve and Bob. Bob specializes in the design of complex digital systems and Steve is responsible for the production of high-power, solid state radars. Neither considers themselves "QRP experts" but both have been attracted by the ease of construction and the low cost of the hardware involved. Maybe that's another way of saying that they're "cheap tinkers."

**Rochester Hamfest-Part IV**  
Lloyd R. Caves, WB2EFU

The year 2000 Rochester Hamfest combined with the ARRL Atlantic Division Conference is fast approaching. This three-day Hamfest will be held on June 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> at the Monroe County Fair Grounds and Dome Center on East Henrietta Road and Calkins Road. You won't want to miss this event, as it will have the largest flea market in the area as well as one of the largest exhibit halls filled with new equipment. The equipment manufacturers will be there to show you all the latest rigs and technology they have available. After getting this information you will be able to visit the many dealers that will be set up to sell you that equipment at some fantastic prices. At the end of the day on Friday you can relax and enjoy a great meal at the awards banquet held at the Marriott Thruway Hotel on West Henrietta Road. By contacting Jack Tripp, N2SNL at any of the RaRa meetings, you can order tickets for all events in advance. You can also order your tickets in advance by mail. Visit the Hamfest website for all the information you will need on ticket sales, exhibitors, flea market, programs, banquet and the Hamfest in general at [www.rochesterhamfest.org](http://www.rochesterhamfest.org).

Speaking of programs, this year will have a lot of interesting speakers. Schedule your time to attend the meetings that will be of interest to you. For example Ed Hare, W1RFI, ARRL Laboratory supervisor will be presenting a very interesting program called **Electronic Troubleshooting**. Many hams are a bit lost when their favorite piece of equipment goes up in smoke or they need to track down an elusive electronics problem. Ed brings many years of bench troubleshooting experience that will help solve these problems.

The **Rochester VHF Forum** will be held again for the tenth year in a row. Tim Stoffel, NS9E, this years VHF Groups chairman, will host this highly acclaimed forum. If you are interested in VHF operations and beyond this is the place to be. This has been one of the largest attended forums for that past few years.

A few years back the ARRL started a program called Radio Coaches. The intent was to get people

*continued on page 9*

**Fourth Annual Ontario QSO Party**  
Bob Chandler, VE3SRE

Just want to invite members of the Rochester Amateur Radio Association to jump on the bands for the 4th Annual Ontario QSO Party. This year it takes place on the April 29-30th weekend starting at 18:00 UTC Saturday to 18:00 UTC Sunday. It is held on all HF bands SSB/CW and on the VHF/UHF bands FM simplex, SSB, and CW. Complete details are at <http://www.odxa.on.ca/oqphome.html>.

This is a fun and friendly contest where folks can "chase" the counties of the province of Ontario. So feel free to aim those antennas "across the lake" and have some fun!

**RaRa Meeting**  
**April 7, 2000**  
Henrietta Fire Hall, 3129 E. Henrietta Rd.  
**QRP**  
Presented by Steve Auyer, N2TKX  
and Bob Jackson, WB2BJW

The golden age of radio was the theme of the April meeting and was hosted by Bruce Kelley, W2ICE, from the Antique Wireless Association Museum in Holcomb. Bruce presented the history of radio station WHAM using one of the well prepared 35 mm slide programs that the AWA was noted for. The Rochester VHF Group printed the top scorers in the January VHF contest with the top two finishers Chuck Oneske K2YCO and Hank Blodgett W2UTH. The top two Multi-operator stations were Mike McHugh W2AV and Tim Magee WB2KAO and the top two single Ops were Len Gessin WA2ZNC and Ed Gable K2MP. This issue updated RARA's long term License Class Activity by reporting Harold Munday, KD2K, would be the new Advanced class instructor. At this time there 52 students in the Novice Class sessions while 48 sat in the General classroom. Irv Goodman, AF2K/ZB2EN, wrote for the RDXA to say their next meeting would feature one of Rochester's most awarded DX operator, Sax Ringler W2SAW (sk), would speak on the Sicorro DXpedition. The Rochester VHF Group announced two items in this month's column; the first their meeting plans which moved the venue to the then new Harris/RF Engineering building, and the second was the initiation of a new Wednesday net on 50, 144 and 432 Mhz where Groupers could meet on a regular and known basis to test equipment. George Huron N2APB, continued his excellent series on CW traffic handling, this time covering net control Q codes and expected responses from net members. Well done. Ed Holdsworth N2EH (sk), invited local hams to join the fun by working communications for the Susquehannock Trail Pro Rally. You could sign up by contacting Roger Harnaart WB2BWQ (sk). Joe Calzaretta K2VI, included an article for the Genesee Repeater Association, sponsor for the then popular 19/79 auto-patch equipped repeater, where he described their planned annual business/dinner meeting at the Roundtowne Motor Inn. In a sort of tongue-in-cheek article, a group of Greece hams, led by Herb Haddleton WA2MST (sk), boldly told of their plans to activate Huckleberry Island with a DXpedition. Skillfully navigating their 14 foot row boat, they arrived in the center of Long Pond and gleefully stepped upon the western shore of Huckleberry Island. Ten feet later they reached the eastern shore. This intrepid group put signals on 40 thru 2 meters and thrilled operators as far away as Hilton and Henrietta. Bert Kavanaugh WA2CTC, was the QSL manager. He wasn't busy. With regret it was announced that Marvin Vinkey, K2DPW, was reported as a Silent Key. From the Want Ads you could buy an ICOM IC-230 Synthesized 2M FM radio from Jim Tiefenthal W2IS. The Heathkit Electronic Center on Jefferson Road remained a long term advertiser this month featuring a HX-1681 Transmitter kit for \$227.95.

# The RARA RAG

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The Rochester Amateur Radio Association  
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NO. 8

## GOLDEN AGE OF RADIO AT APRIL 11 MEETING

The program for our April 11th Meeting should meet the approval of all members who are sentimental about the past. A revised version of this popular Antique Wireless Association show, which uses dual projection and stereo sound, starts with cylinder phonographs and crystal sets and ends with the early days of television.

The show includes early pictures of WHAM's studios and transmitter which were manned by radio hams. Oldtime movies, nostalgic music and TRF receivers set the pace for this entertaining program.

Meeting place is the Monroe County Farm and Home Center, 249 Highland Avenue. Be sure to be there Friday, April 11, 8 p.m., for this terrific fast moving presentation of the Antique Wireless Association. It will be an evening remembered. Don't miss it!

## VHF CONTEST WINNERS

Chuck Oneske, K2YCO - 28,096 - Top Single Operator; Hank Blodgett, W2UTH - 24,618 - Top Multi-Operator; Mike McHugh, Tim Magee, W2AV - Second Multi-Operator; Irv Goodman, AF2K - 228 contacts - Top FM; Bill Gillette, WB2KIW - Top Phone; Ed Valmore, K2EVJ - Top CW; Paul Jacobs, W2IOG - Most improved (9996 over 79); John McCadden, WB2JKF - Best DX (694 mi. on 2); John Yells, N2JY - Top Score 220 MHz.; Bob Nezeleck, W2CNS - Top Score 432 MHz.

TOP TEN SINGLE OPER. STATIONS, SCORES:

WA2ZNC - 16,700 - Len Gessin; K2MP - 15,744 - Ed Gable; WB2JFL - 14,064 - Milt Salisbury; WA2YEK - 12,452 - Nancy (Lee) Vangrol; DL7KX/W2 - 12,000 - Klaus Gueldenpfennig; K2RHS - 11,424 - Ed Vangrol; K2VCZ - 10,710 - Dick Goslee; WA2MCB - 10,604 - Ron Faro; K2OS - 10,400 - Frank Pollino; WB2RJB - 9,180 - Otto Bluntzer.

## ROCHESTER VHF GROUP: APRIL 18

Our famous Rochester VHF Group will hold its April 18th meeting at its usual meeting spot in the new office building of the Harris Corporation, RF Communications Division. The program details are not yet final (*this is written in mid-March*) but will be announced in the usual newsletter that precedes the meeting.

Don't forget there is a new VHF Group Net that meets on the air Wednesday night of each week. This will help you to test rigs and antennas that you may be experimenting with. The Committee is made up of stations WB2KIW, K2MP, WB2HWO, and WB2IEY. These stations and others serve as net controls so if they don't hear you its not working yet! The Six Meter session starts at 8 p.m. on 50.120MHz; the Two Meter session begins at 8:30 p.m. on 144.120MHz; and, the 70cm net starts at 9 p.m. on 432.120MHz. Activity started in March and there have been a large amount of stations checking in.

The ARRL EME Contest has two dates this year, April 12 and 13, plus May 17 and 18th. The June VHF Contest dates are June 14 and 15th, and hopes are high that the 'Russian Woodpecker' will have all the snow off the roads by then!

## ADVANCED LICENSE CLASS

The RaRa Advanced class theory class will be offered starting Tuesday, March 25, 1980. They will be held at the club station, 350 East Henrietta Road from 7:30 - 9:30 p.m. If this is the first you have heard, you can still feel free to come down since there are no classes held on April 1st and 8th but will be on each Tuesday starting April 15th until May 13th.

The fees are \$2.00 registration, \$2.00 for manuals plus club membership. These will be taken care of at the beginning of the class on March 25th. Harold Mundy, KD2K, will be the instructor.

## VE TEAM

The next **ALWAYS FREE** testing session:  
 Saturday April 18th (Third Saturday)  
 Rochester Institute of Technology  
 Kate Gleason College of Engineering  
 Gleason School of Engineering  
 Room 3139, Bldg. 9  
 Use "J" parking lot

Registration at 9:45AM  
 Testing at 10:00AM

**For April testing please continue to check either the RARA webpage or Laurel VE page at <https://www.laurelvec.com/index.php?team=RARA> for the latest information.**

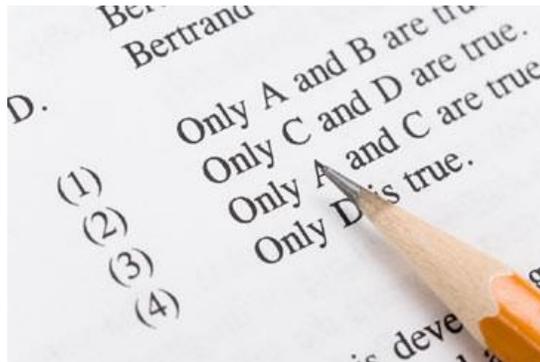
You do not have to preregister.

To avoid giving your SSN go to:  
<http://wireless.fcc.gov/uls/index.htm?job=home>

Register and bring the resultant FRN to the exam.

For more info and a map:  
[https://rochesterham.org/license\\_testing.htm](https://rochesterham.org/license_testing.htm)

Don Kiser - AC2EV  
 RARA Board member  
 VE Team Leader  
 585-613-1035



New licensees names are in **BOLD**

## CW ELMERS

Name	Call	Area	Email
Ned Asam	W2NED	Pittsford	<a href="mailto:w2ned@frontiernet.net">w2ned@frontiernet.net</a>
Tim Brown	WB2PAY	Ogden	<a href="mailto:tjbrown@rochester.rr.com">tjbrown@rochester.rr.com</a>
Pete Fournia	W2SKY	Penfield	<a href="mailto:pfournia@gmail.com">pfournia@gmail.com</a>
Bill Hopkins	AA2YV	Brighton	<a href="mailto:whopkin4@naz.edu">whopkin4@naz.edu</a>
Bob Karz	K2OID	Webster	<a href="mailto:rkarz@rochester.rr.com">rkarz@rochester.rr.com</a>
Joe Rowe	AG2Y	Webster	<a href="mailto:ag2y@rochester.rr.com">ag2y@rochester.rr.com</a>

## RADIO ELMERS

Name	Call	Area	Email
Tim Brown	WB2PAY	Ogden	<a href="mailto:tjbrown@rochester.rr.com">tjbrown@rochester.rr.com</a>
Dave Carlson	N2OA	Batavia	<a href="mailto:kdcarlso@gmail.com">kdcarlso@gmail.com</a>
Lawrence Hill	N2AJX	Henrietta	<a href="mailto:lawrence.hill@rit.edu">lawrence.hill@rit.edu</a>
Bill Kasperkoski	WB2SXY	Pittsford	<a href="mailto:wb2sxy@gmail.com">wb2sxy@gmail.com</a>
Don Kiser	AC2EV	N Greece	<a href="mailto:dkiser100@gmail.com">dkiser100@gmail.com</a>
Karl Heinz Kremer	K5KHK	Chili	<a href="mailto:k5khk@khk.net">k5khk@khk.net</a>
Tim Magee	WB2KAO	Greece	585-704-5747
Peter Schuch	WB2UAQ	Perinton	<a href="mailto:pschuch@rochester.rr.com">pschuch@rochester.rr.com</a>
Forest Shick	WA2MZG	Webster	<a href="mailto:fshick3@gmail.com">fshick3@gmail.com</a>
Dave Timmons	W2DST	N Greece	<a href="mailto:dstimmons@gmail.com">dstimmons@gmail.com</a>
Dan Waterstraat	W2DEW	Henrietta	<a href="mailto:higreen@rochester.rr.com">higreen@rochester.rr.com</a>

# RARA CALENDAR

TIM BARRETT, K9VB, MEMBERSHIP SECRETARY

April 2020						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			<b>1</b> <b>RaRa Monthly Mtg CANCELED</b> ROC City Net 8:00pm 1.924 MHz UKEICC 80M Contest NRAU 10M Activity Contest	<b>2</b> <b>RaRa BoD Meeting 5:45pm Nova-works 333 Metro Park Rochester 14623</b> ARES Net 146.61 MHz 7pm	<b>3</b> LZ Open 40M Sprint Contest	<b>4</b> MO MS LA NE QSO Parties PODXS 0709 Club PSK31 Ctest Florida State Parks on the Air SP DX Contest EA RTTY Contest
<b>5</b> MO MS LA NE QSO Parties PODXS 0709 Club PSK31 Ctest Florida State Parks on the Air SP DX Contest EA RTTY Contest NA SSB Sprint Contest UBA Spring Contest, 6M RSGB RoLo SSB Contest	<b>6</b> <b>AWA Net 145.110 MHz, 7pm</b> IQRQ Quarterly Marathon 144MHz Spring Sprint RSGB Club Contest 80M, CW	<b>7</b> <b>RXCWG CW Practice Net 9pm</b> Phone Fray CWops Mini-CWT Test NCC Sprint IQRQ Quarterly Marathon	<b>8</b> ROC City Net 8:00pm 1.924 MHz IQRQ Quarterly Marathon	<b>9</b> ARES Net 146.61 MHz 7pm IQRQ Quarterly Marathon	<b>10</b> IQRQ Quarterly Marathon	<b>11</b> IQRQ Quarterly Marathon QRP ARCI Spring QSO Party JIDX CW Contest FTn DX Contest OK/OM Contest SSB SKCC Sprintathon NM ND GA QSO Parties Yuri Gagarin DX Contest
<b>12</b> IQRQ Quarterly Marathon JIDX CW Contest FTn DX Contest OK/OM Contest SSB SKCC Sprintathon NM ND GA QSO Parties Yuri Gagarin DX Contest WAB 3.5 / 7 / 14 MHz Data International HF Vintage Contest	<b>13</b> <b>AWA Net 145.110 MHz, 7pm</b>	<b>14</b> <b>RXCWG CW Practice Net 9pm</b> Phone Fray CWops Mini-CWT Test NCC Sprint 222MHz Spring Sprint	<b>15</b> ROC City Net 8:00pm 1.924 MHz	<b>16</b> ARES Net 146.61 MHz 7pm	<b>17</b> Holyland DX Contest	<b>18</b> <b>Drumline Hamfest CANCEL-ED</b> <b>World Amateur Radio Day IARU</b> Holyland DX Contest ES Open HF Championship Worked All China Contest YU DX Contest CQMM DX Contrest MI ON QSO Parties EA-QRP CW Contest Texas State Parks on the Air <b>ARRL Rookie Roundup</b>
<b>19</b> ES Open HF Championship Worked All China Contest YU DX Contest CQMM DX Contrest MI ON QSO Parties EA-QRP CW Contest Texas State Parks on the Air <b>ARRL Rookie Roundup</b>	<b>20</b> <b>AWA Net 145.110 MHz, 7pm</b>	<b>21</b> <b>RXCWG CW Practice Net 9pm</b> Phone Fray CWops Mini-CWT Test NCC Sprint	<b>22</b> ROC City Net 8:00pm 1.924 MHz 432MHz Spring Sprint	<b>23</b> ARES Monthly Meeting 6pm	<b>24</b>	<b>25</b> 10-10 Spring Contest SP DXC RTTY Contest Helvetia Contest Florida QSO Party
<b>26</b> BARTG Sprint 75 10-10 Spring Contest SP DXC RTTY Contest Helvetia Contest Florida QSO Party	<b>27</b> <b>AWA Net 145.110 MHz, 7pm</b> QCX Challenge RSGB FT4 Contest Series	<b>28</b> <b>RXCWG CW Practice Net 9pm</b> Phone Fray CWops Mini-CWT Test	<b>29</b> ROC City Net 8:00pm 1.924 MHz UKEICC 80M Contest	<b>30</b> ARES Net 146.61 MHz 7pm		

# NEWS FROM AREA CLUBS

## MONROE COUNTY ARES / RACES NEWS

Monroe County Amateur Radio Emergency Service (ARES)® is an amateur radio public service organization based in Monroe County, New York, and is open to all licensed amateur radio operators. Monroe County Radio Amateur Civil Emergency Service (RACES) is a program of the Monroe County Office of Emergency Management. We participate in training and emergency exercises so that we can serve other agencies during times of communication failure.



The Monroe County Amateur Radio Emergency Service, Inc. holds its meetings on the fourth Thursday of each month except in July, August, November and December. Anyone interested, members and non-members, are welcome to attend.

On even numbered months the meetings are held at the Monroe County EOC, 1190 Scottsville Rd. (Media Room, 2nd floor, north end). On odd numbered months we meet at the Red Cross, 825 John St.. W Henrietta. at 6:00 PM. Please check our website for any schedule changes.

If the doors are locked, call WB2EOC on the 146.61 MHz (-) 110.9 Hz PL repeater.

Monroe County ARES/RACES meets on the air every Thursday of the month at 7:00 PM, on the N2MPE 146.61 MHz (-) 110.9 Hz PL and 444.45 (+) 110.9 Hz PL repeaters. Our club callsign is WB2EOC.

There is no net on nights when we hold our regular meeting, generally on the 4th Thursday of the month.

WEB: [www.monroecountymcomm.org](http://www.monroecountymcomm.org)

Facebook : Monroe County Amateur Radio Emergency Service, Inc.

Twitter @MCARESNY

**Severe Weather Alerts:** Winter may bring severe weather in the form of heavy snow storms, strong winds, and flooding. If you experience severe weather, especially when accompanied by damage to property in your area, listen to your local ARES/RACES repeaters for information. While official ARES/RACES activation could be a possibility, it is more important that we open a spontaneous net simply to share information about weather conditions in your immediate area. Don't wait for someone else to do it. Pick up the microphone and start a net. Have each check-in station give you a situational awareness report and emergency power report. If you don't have a copy of the directed net protocol, you can find one at the WEB address listed above. (Activities/ARES Net/ Net Script/

Downloads). We encourage all amateur radio operators to take a free Skywarn TM class offered by the National Weather Service. The schedule of classes can be found at <https://www.weather.gov/buf/skywarn>

Monroe County ARES  
Ralph Dutcher, Net Control - [KD2BDZ@arrl.net](mailto:KD2BDZ@arrl.net)

## ROCHESTER DX ASSOCIATION, RDXA

RDXA meets the 3rd Tuesday of every month (September through June) except for December, which is the Annual Holiday Banquet. Meetings are open to everyone and all are encouraged to attend.

Check [rdxa.com](http://rdxa.com) for details

Meetings are held at the ~~Monroe County EOC 1190 Scottsville Rd. (second floor), Rochester, NY 14624~~ at 7:30PM.



## ROCHESTER RADIO REPEATER ASSOCIATION

The Rochester Radio Repeater Association, RRRRA invites you to attend its April 17, 2020 meeting. Meetings are held on the 3rd Friday of the month in the Pittsford Town Hall Basement starting at 7:30 PM.

Due to the urgency of the covid-19 outbreak it is wise and prudent to limit exposure of our members to un-necessary public meetings. **The March RRRRA meeting and auction have been canceled.** Weather permitting, the auction is rescheduled for April 17th 2020.

Set up and socialization will start at 7:00 pm. As usual, 10% of the sold value is paid to the Club by the seller. You do not need to be a member to attend but we could use your support by becoming a member. Ed and Dick will again be our auctioneers. Watching them work the auction is always entertaining. Hope to see you at our auction.

The RRRRA officers for 2019 - 2020 are Bob Shewell, N2HJD-President, Bob ODell, N2BZX-Vice President, ED Wilkonski, KC2WM-Secretary, and Bob Smith, NS2B-Treasurer / Membership Chairman.

RRRA also accepts donations to the club. If you are not currently a member and want to support RRRRA, you can join at our monthly meeting or on our web site [www.k2rra.org](http://www.k2rra.org)

**Due to our current health crisis please check your organizations web site for the status of meetings and events.**

## ROCHESTER VHF GROUP

### Spring Auction & Seminars

Morning of Saturday, May 2  
Webster Fireman's Fieldhouse

Out of an abundance of caution and regard for the health of our fellow hobbists, this event is postponed.

5pp  
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may write a higher amount  
y is sincerely appreciated.



Seminars & demos, just like "the old days". More info soon!

## XRX AMATEUR RADIO CLUB

The XRX Amateur Radio Club meets the 2nd Thursday of each month. The meetings are 6PM at the Webster Recreation Center. Look for details on our website <http://xarc.us>

## AMATEUR RADIO ASSOCIATION OF THE SOUTHERN TIER, ARAST

ARAST meets the third Thursday of every month at the Town and Country Fire Department on Gardner Rd in Horseheads New York. Chemung County ARES (CCARES) meets the first Tuesday of the month except February on Harris Hill, next to the National Soaring Museum. See <http://www.ccares.info> for details. CCARES serves the entire area in Chemung, Schuyler and Steuben counties and all are welcome.

Our new website is up and running, although future enhancements are still planned. Check it out at <http://www.arast.info>.

Our 2020 Hamfest, one of the largest in Upstate New York, will be held this year on September 26, 2020 at the Chemung County Fairgrounds in Horseheads, New York. Details and tickets are now available online at [http://www.arast.info/arast\\_website/public/hamfest.php](http://www.arast.info/arast_website/public/hamfest.php).

Communicators are needed to help with the 2020 Guthrie Wineglass Marathon on October 4, 2020 in the Corning area. If you would like to help, contact the emergency coordinator, Elliott N2OJM, at [emergencycoordinator@stny.rr.com](mailto:emergencycoordinator@stny.rr.com)

Don't forget to check out our repeaters when you visit the area. N3AQ 147.36(+) and the W2ZJ 146.70(-) are the principal 2-meter repeaters. The latter can also be accessed via Echolink node 672027 with the call sign KA2BED-R. A full list of repeaters that can be heard in the Twin Tiers area surrounding Chemung County can be found at

[http://www.arast.info/arast\\_website/public/repeaters.php](http://www.arast.info/arast_website/public/repeaters.php).

## COMMUNITY AMATEUR RADIO CLUB, CARC

If you are interested in being a part of this forward thinking and active club, visit us at a meeting or join us on one of our weekly nets. We meet at the Hoag Library (134 S. Main St. Albion, NY) on the first Saturday of each month at 7PM. Each meeting has a brief training/refresher period with upcoming topics including: net protocol, repeater set-up/maintenance, and digital signaling. The club holds a net every Sunday evening at 8pm (winter) and 9PM (summer) - 0100 UTC Monday - on 147.585 simplex, and we host the Thursday Night Social Net, Thursday at 8:30PM on 147.285+. We'd love to hear you check-in!

## DIGITAL COMMUNICATIONS ASSOCIATION OF PERINTON, DCAP

DCAP members continue to experiment with leading edge digital communication modes. We were formed in 1994 to foster the development of local and regional packet radio networks using AX25 and TCP/IP. Today we have members using the club sponsored DSTAR repeater (KB2VZS on 444.8MHz), several personal and publicly accessible DSTAR hotspots, Yaesu System Fusion systems on non-club repeaters and DMR systems through repeaters and personal hotspots. DCAP members meet for breakfast at 7AM nearly every Saturday morning at Rikki's Family Restaurant in the village of Fairport and everyone is welcome to join us. Talk in is on the KB2VZS analog repeater on 146.715MHz with a PL tone of 110.9Hz.

## DRUMLINS AMATEUR RADIO CLUB

The Drumlins Amateur Radio Club meets every third Wednesday of the month at 7:30 PM at the Wayne County EMO/Sheriff's Office 7376 State Hwy 31 #1000, Lyons, NY 14489. Doors open at 7 pm, meeting starts at 7:30 pm. Announcements will be made on the 146.685 repeater. The Drumlins ARC website address is <http://drumlinsarc.us/>

Due to our current health crisis please check your organizations web site for the status of meetings and events.

## KEUKA LAKE AMATEUR RADIO ASSOCIATION, KLARA

The purpose of our association is to:

- promote interest in Amateur Radio communication and advancement of the radio art.
- conduct programs, training, and exercises that enhance the skills of the members, and educate the community.
- develop ties with other services and establish relationships with community organizations.
- provide emergency communication services.
- promote enjoyable Amateur Radio related events.

The association was incorporated in 1991 and has been a vibrant part of the community ever since. We have a very active VE testing program. We also participate in numerous public events (the Wineglass Marathon and the Wine Country Classic Boat Regatta are two of the largest).

We operate a system of three repeaters (which are linked), providing a large area footprint for two meter FM amateur use. Please see our website for details. ([klara.us](http://klara.us))

Our meetings are held on the second Wednesday of each month at the Civil Defense and Fire Training Center on Route 54 in Bath, NY.

### ORLEANS COUNTY AMATEUR RADIO CLUB

The Orleans County ARC meets every 2<sup>nd</sup> Monday of the month at the Orleans County Emergency Operations Center, 14064 West County House Road, Albion, NY 14411. Doors open at 6:00PM, meeting starts at 7:30PM. Anyone with an interest in amateur radio is welcome. Program topics vary from month to month.

The club has an open two meter net every Tuesday night at 9:00PM local time on the club repeater, WA2DQL/R (145.27 -600KHz offset, 141.3 tone). Everyone is welcome to check in.

See the club website <http://ocarc.us> or contact club Secretary Ron Craig, N5BNO for more information.

### SQUAW ISLAND AMATEUR RADIO CLUB, SIARC

The Squaw Island Amateur Radio Club (SIARC) meets every second Wednesday of the month at 7:30PM at the Ontario County Safety Training Facility, 2914 County Road48, Town of Hopewell.

We have License Exam Testing every other month which begins at 6:30PM.

The next meeting will be Wednesday, April 8th. The program will be on Go Kit design and construction. 73's Steve Benton VP SIARC WB2VMR

## INTERLOCK ROCHESTER - K2HAX - ROCHESTER'S HACKERSPACE

Visit our website at <http://www.interlockroc.org/>, contact us at [info@interlockroc.org](mailto:info@interlockroc.org), or find us in #interlock on Freenode IRC.

### ROCHESTER MAKERSPACE

For more information visit <https://www.makerspacerochester.org/hamradio>

### GENESEE VALLEY AMATEUR RADIO ASSOCIATION

Email [n3dsp@lafireline.net](mailto:n3dsp@lafireline.net) for details.

### ASTRONOMY SECTION ROCHESTER ACADEMY OF SCIENCE

For more information visit <http://www.rochesterastronomy.org/>

**Due to our current health crisis please check your organizations web site for the status of meetings and events.**

## THE AMATEUR'S CODE

Originally written by Paul M. Segal, W9EEA (1928)

#### THE RADIO AMATEUR IS:

- |                    |  |
|--------------------|--|
| <b>CONSIDERATE</b> | Never knowingly operating in such a way as to lessen the pleasure of others.   |
| <b>LOYAL</b>       | Offering loyalty, encouragement and support to other amateurs, local club, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.            |
| <b>PROGRESSIVE</b> | With knowledge abreast of science, a well built and efficient station and operation beyond reproach.   |
| <b>FRIENDLY</b>    | With slow and patient operation when requested, friendly advice and counsel to the beginner, kindly assistance, co-operation and consideration for the interests of others. These are the hallmarks of the amateur spirit. |
| <b>BALANCED</b>    | Radio is an avocation, never interfering with duties owed to family, job, school or community.   |
| <b>PATRIOTIC</b>   | With station and skill always ready for service to country and community.  |

# RARA MARKETPLACE

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Contact us for details at  
[editor@rochesterham.org](mailto:editor@rochesterham.org).

## RARA HAMFEST SPONSORS PLEASE SUPPORT OUR HAMFEST SPONSORS

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# RARA OFFICERS, DIRECTORS AND COORDINATORS

## OFFICERS

<b>President:</b> Tim Guyot, KB1POP	(585) 406-3163	<a href="mailto:timguyot@gmail.com">timguyot@gmail.com</a>	<b>Treasurer:</b> Brian O'Connor, KA2CGB	(585) 721-2346	<a href="mailto:ka2cgb@arrl.net">ka2cgb@arrl.net</a>
<b>Vice-President:</b> Scott Theis, W2LW	(845) 774-9809	<a href="mailto:sa_theis@hotmail.com">sa_theis@hotmail.com</a>	<b>Secretary:</b> Karl Heinz Kremer, K5KHK	(585) 503-7214	<a href="mailto:k5khk@khk.net">k5khk@khk.net</a>

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## ACTIVITY COORDINATORS

<b>Club Historian</b>	Ed Gable, K2MP	<a href="mailto:egable@rochester.rr.com">egable@rochester.rr.com</a>	<b>Public Service</b>	Mike Moore, KC2NM	<a href="mailto:mikemoore@ieee.org">mikemoore@ieee.org</a>
<b>Club Station Trustee</b>	Jim DiTucci, N2IXD	<a href="mailto:n2ixd@arrl.net">n2ixd@arrl.net</a>	<b>Raffle Administrators</b>	Forest Shick, WA2MZG Jeff Sonstein, KD2RRB	<a href="mailto:wa2mzg@arrl.net">wa2mzg@arrl.net</a>
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## ROCHESTER AREA RADIO CLUB CONTACTS

### Antique Wireless Association (AWA)

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### Amateur Radio Association of the Southern Tier (ARAST)

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### Astronomy Section Rochester Academy of Science

Mark Minarich: [mminaric@rochester.rr.com](mailto:mminaric@rochester.rr.com)

### Community Amateur Radio Club (CARC)

Joe Gangi, AC2NB: [ac2nb.carc@gmail.com](mailto:ac2nb.carc@gmail.com)

### Digital Communications Association of Perinton (DCAP)

Gary Skuse, KA1NJL: [ka1njl@arrl.net](mailto:ka1njl@arrl.net)

### Drumlins Amateur Radio Club Ltd. (DARC)

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### Fisherman's Net Amateur Radio Club

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### Genesee Valley Amateur Radio Assn.

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### Keuka Lake Amateur Radio Association (KLARA)

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### Monroe County ARES / RACES

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### Orleans County Amateur Radio Club (OCARC)

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### Rochester Amateur Radio Association (RARA)

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### Squaw Island Amateur Radio Club (SIARC)

Steve Benton, WB2VMR: [sbenton2@rochester.rr.com](mailto:sbenton2@rochester.rr.com)

### XRX Amateur Radio Club

Brian Donovan, K2AS: [k2as@outlook.com](mailto:k2as@outlook.com)

## MAY RAG DEADLINE APRIL 15, 2020



**RARA meets at 7PM on the first  
Wednesday of each month. Join us at:**

<https://attendee.gotowebinar.com/register/5081567116246792203>

CONTACT [WEBMASTER@ROCHESTERHAM.ORG](mailto:WEBMASTER@ROCHESTERHAM.ORG) FOR SUPPORT

## Rochester Area Repeater Listing

### THE RARA RAG

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# Rochester Hamfest 2020

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**RARA**



## Registration Form for Learn It, Build It, Fix It At the AWA Museum

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The classes will be held on Saturdays April 25, May 2, 9, 16 and 23, 2020 from 9 am to 1 pm at the Antique Wireless Museum, 6925 Route 5, Bloomfield, NY. The cost of the five classes is \$150 payable in advance. Registration includes a one-year membership as a Friend of the AWA Museum (a \$20 value). Payments are non-refundable.

The registrant is also required to obtain a tube guitar amplifier kit of their choice before April 25th. Suggested kits include:

<https://www.modkitsdiy.com/kit/mod-102-guitar-amp-kit> (lowest cost, good choice)

<https://www.tubedepot.com/products/tweed-5f1-vacuum-tube-amp-kit>

<https://www.tubedepot.com/products/tweed-5e3-vacuum-tube-amp-kit>

Registration is limited to the first 15 registrants. To reserve a spot, please make payment and mail registration form no later than April 4th to:

Robert Hobday  
760 Cheese Factory Rd  
Honeoye Falls, NY 14472

Payment can be made by Paypal (preferred) to [WM3D@arrl.net](mailto:WM3D@arrl.net). This Paypal address belongs to AWA and its Treasurer, Mr. Stan Avery. 6925 Rt 5/20 in Bloomfield. Checks are also accepted, payable to **ANTIQUE WIRELESS ASSOCIATION**.

Please email Bob with any questions: [Education.awam@gmail.com](mailto:Education.awam@gmail.com)