Strategies for Noise Mitigation

Online Meeting and Presentation

Scott Theis, W2LW, RaRa Vice President

Because the RaRa Hamfest has been cancelled due to COVID-19, we will have an online June General Meeting. This will be the third online meeting, hopefully as packed as the first two (we have filled the available slots with 90 attendees plus staff).

This month we have a special treat for a presenter; Dave Casler. I know I can credit his videos for helping me pass each of the Technician, General and Extra tests with flying colors. Further his “Ask Dave” videos, now numbering near 300, have made a big impact on the knowledgebase for Ham Radio.

Dave will be discussing noise, mitigation tools, and strategies to help operators understand and improve their local noise situation. There are things you can do to limit some types of noise and tools within your gear to help filter noise. He has found that proper grounding can make a real difference in the amount of noise you have to deal with. The presentation will explore sources of noise and what can be done — and what probably cannot be done!

Dave is a long-time ham and has a wealth of experience with different modes, equipment, conditions. Dave is an Air Force vet and has a degree in electrical engineering.

To register for the meeting, please go to: https://attendee.gotowebinar.com/register/5960842168228055056

There are 100 available slots and the system allows overbooking, so arrive early. The event will also be broadcast via YouTube but obviously you will not be able to interact. Additional information and links will be posted on the RaRa website prior to the meeting.

So, bring snacks and hangout in your shacks and enjoy the meeting at home — Join us online Wednesday, June 3rd, 2020 at 7:00PM. Please arrive a little early to make sure you are completely set up.

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

Important Notice! The Rochester Amateur Radio Association will not hold the 93rd Annual Rochester Hamfest on June 6, 2020, due to the Coronavirus/Covid-19 Pandemic. We have decided not to reschedule so as not to compete with other area events in the summer. We will have a presence at the RocCityNet Hamfest August 29th, 2020.
The New-Virtual Normal

Adopting new technology and Amateur radio have gone hand in hand, well... since day one. So, it’s no surprise that in this new era of social distancing and working from home, many amateur radio operators have welcomed the use of a myriad of virtual meeting tools in order to remain engaged with local and national amateur radio organizations.

RARA is certainly no exception, leveraging the use of online meeting tools for general club meetings, board meetings, and academies, with great success over the past couple of months.

Whether for personal use, work, or for RARA events, Zooming, GoToMeeting, Skyping, or Teaming has become very much commonplace in this “new normal.” And of course, this comes along with all the technological barriers of muted microphones and wonky video issues, audio feedback, unexpected background noises from pets and children, that neighbor who always seems to mow his lawn every time you’re holding your weekly team meeting, or the ever-present challenge of making sure you have a suitable backdrop for your video meetings.

But these tech issues are minor considering what we are regaining by being able to collaborate and engage with others, to hold club meetings with a large number of participants, for the RARA board to meet to collaborate on club business and plan future club events, and for membership to participate in a variety of RARA-sponsored academies. Best of all, adopting the use of virtual meetings has not only allowed us to remain engaged as an organization, but it has also provided a level of access to our meetings and academies not previously offered.

In fact, the use of virtual meetings has been so successful, we have seen attendance to the general meetings nearly double, and academy attendance has been at least as well-attended as in previous in-person academies. It’s because of this success that the board has been discussing options to continue providing this service to those who cannot attend meetings and academies in person, making the combo of in-person and virtual events our own “new-normal”.

But in order for this to happen, we will need to work out the logistics of this endeavour, including the need for access to the internet at a variety of locations, obtaining web cameras suitable for medium/large group meetings, and the need for volunteers to help manage the meeting platform, handle the video cameras and audio, make sure online attendees can participate and engage, and more.

This is something we are certainly looking forward to making a reality, in the near future.

So, as we look to a new month, keep an eye out for new virtual academies and events in the [http://www.rochesterham.org](http://www.rochesterham.org) website, and “see you” at the next RARA general meeting!

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**Boardz Buzz**

**George Lama, KC2OXJ**

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**Calendar of Events**

**Wednesday June 3, 2020 - RARA General Meeting**
7:00 PM - ON LINE
[https://attendee.gotowebinar.com/register/5960842168228055056](https://attendee.gotowebinar.com/register/5960842168228055056)

**TBD June, 2020 - RARA Board of Directors Meeting**
6:30PM ON LINE
Email request for link to secretary@rochesterham.org

**Weekend August 22, 23, 2020 International Lighthouse Lightship Weekend**
**EDUCATION**
Tim Brown, WB2PAY, Education Coordinator

**RARA LICENSE COURSES**

Home study will be the norm for a while. License classes may resume in the fall.

RARA Education is offering tutoring for those doing home study and need a topic explained.

Those preparing for the Technician, General or Extra licenses may purchase a License manual or arrange for tutoring by emailing education@rochesterham.org

**NOTICE**—Local Testing Has Been Suspended Until the Fall of 2020

**REMOTE LICENSE TESTING**
To apply for remote testing, you must have pre-arranged to have a proctor supervise the testing.

To see if there is a VE proctor near you, contact RARA's License Testing Coordinator: dkiser100@gmail.com

Here is the website for individuals to apply for remote testing: https://kl7aa.org/vec/remote-testing/

**RARA ACADEMY WORKSHOPS**

April 11th DSTAR Academy
61 Participants

May 2nd DMR Digital Mobile Radio
80 Participants

May 16th FUSION Radio
48 Participants

Academy Recordings are available at https://www.rochesterham.org/rara_academy.htm

Fall Academy on Antenna Analyzers - More than just SWR measurements
Date TBD
Presenters: Larry Brightenfield, W2LB and Pete Schuch, WB2UAQ

Thanks to Brian Duff, WM2W, and his employer Douglass Mauro of TruePath Technologies, Inc for donating the use of their business Zoom account for our Academy workshops.

Get up to date Academy information at https://www.rochesterham.org/rara_academy.htm
Due to the limitations posed by the COVID-19 shutdown, the Rochester Tour de Cure will not be held as planned on June 13. The event leadership team, working with ADA on the national level, has rescheduled the Tour de Cure for Saturday, Oct. 3rd as a virtual event. The change to a virtual event is a further disappointment to us in RARA. Tour de Cure is the largest of our public service events. Plans for the virtual event will come from the event planning committee and it is not known if RARA has a role in the virtual event. There will not be an established road course and no food or midway activities at the Xerox site. This change affects more than Rochester. All of the remaining American Diabetes Association events held this year will be virtual.

I received a nice note of appreciation from Colleen Brown, Associate Manager of Donor Relations at the American Diabetes Association thanking us for our hard work and support this year and in the past for Tour de Cure. Colleen says, “We appreciate all that you do in the fight against diabetes! We would love for you to stay engaged in this year’s virtual event. Since you are often so busy working Tour day and aren’t able to personally ride, run or walk in the actual event, please consider joining our ROC VolunTEAM, captained by our very own Ken Nawrocki! There are no registration fees, so feel free to invite your friends and family members to join as well! Also, if you are able, please consider raising or donating $34 for the 34 million Americans currently living with diabetes visit www.diabetes.org/rocvolunteam”. I believe that many of you have met Ken on the course. Ken runs the route marking team.

For next year, the Tour de Cure will be held on the 2nd Saturday in June – so June 12, 2021.

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**Show Us Your Shack**

**Presentation**

Scott Theis, W2LW, RaRa Vice President

COVID COVID COVID, YUCK! Let’s turn some lemons into lemonade. We will be having an online General Meeting for July (07/01 7:00PM) and being at home gives us the perfect opportunity for members to easily “show us your shack”.

I will lay out the guidelines in the July rag, but for now, I am looking to see how many hams might be interested in showing us their stuff. Plan on talking about what bands and modes you work, what you like, what works and what does not, how long it took to get where you are today, etc.

From the minimal “shack in a box” (as mine is shown above) to the uber shack, we want to hear about it.

We will be parceling time from 3-5 minutes (may be more if warranted) to various members to give us a tour. It does not have to be formal; you get to be the presenter for that slot it can be live video and/or stills with some slides. Keep in mind members may want to ask questions.

Please email vicepresident@rochesterham.org if you are interested in participating. Given the normal available time for the presentation segment, it will probably work out to 10-15 available presentation slots. I know a lot of folks would love to hear what others have as a setup! So, think about sharing!

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Please mark your calendars for our upcoming RaRa Public Service Events

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<td>Tour de Cure (TBD)</td>
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The Story of a British Boat Anchor
Tim Barrett, K9VB

I’ve had this radio since I purchased it in 1985 when I was living in the UK, so by now it is really part of the family! Living in a small apartment back then I thought transmitting was out of the question so I decided if I were just going to be an SWL I may as well get the best equipment I could. Although I went on to get my license and operate HF, I still kept this receiver. Later, when I agreed with my wife to emigrate to her hometown of Rochester, NY back in 2003, one of the conditions was that I could bring my radios with me!

How do you move a radio of this size? Well most of it went in a ship-bound container with the rest of our belongings but I couldn’t trust the main receiver to that. Fortunately, I knew somebody who had a radar shipping case which was just the job.

Having moved to a new house last July, the radio got dismantled again and has been sitting in the basement in pieces until I finally found time to put it together just recently. Now it is back in one piece and, I’m pleased to say, in working order.

There are three units in the rack, all made by Racal. In the center is the main R17L receiver, above it is the RA137 Low Frequency Adaptor and at the bottom is the MA197 Pre-Selector.

These were built during the 1950s and 1960s for use in warships and government listening posts. You could probably run over them with a tank and not do much damage. The weight is marked on the front panel of each item, the top one is a mere 15lb, the receiver in the middle is 67lbs and the pre-selector below is 45lbs. The cabinet is heavier than any of the units, so the assembled system is not going anywhere!

The receiver is the legendary (in the UK at least) Racal 17L receiver. This covers 1MHz to 30MHz and is a triple conversion superhet. Racal did also make a quadruple IF version, the Racal 117 but that is rather harder to get hold of. These radios are highly regarded in the UK as being the pinnacle of tubed receiver design. The combined rack has 36 tubes, so it also keeps the shack warm!

The story goes that in the early 1950s Ray Brown and Calder Cunningham founded Racal (name based on their first names) and soon won a government contract to build a couple hundred Collins receivers for the British Royal Navy. Unfortunately, Collins would not play ball and did not give Racal the necessary license to copy their designs. So, Racal were left with no choice but to design their own receiver. That was the R17, and the similar but improved R17L came out a couple of years later.

I was told that during the cold war there was a wide band HF receiver covering 1-30MHz located at the British Embassy in Moscow. The output was modulated onto a microwave signal and sent via satellite to GCHQ (British equivalent of NSA) in Caversham, UK. There it was demodulated back to HF and fed to a bank of Racal R17L receivers. The operators in the UK could then tune around the HF bands as though they were in Moscow. I imagine it might have looked something like this installation at the BBC monitoring station at Crowsley Park. That would have been fun to play with!
My receiver has a date code that indicates it was manufactured in January 1961, almost sixty years ago. The equipment is still in pristine cosmetic condition, despite being a favorite toy when my daughter was small with all those knobs to twiddle! The radio is finished in an attractive shade of light blue, although the technical manual refers to the color as ‘light battleship grey’.

Mine were all made in the UK, but Racal also manufactured these in the US. In many ways the US versions were preferable because they had a proper S meter and used standard connectors. Mine used obsolete British military connectors which I have mostly replaced. However, the US version used tubes throughout, while the British used valves which are of course superior. (Not entirely a joke, the US version used a different tube line-up to reflect availability in the US)

The receiver has two sockets for phones and a small speaker, although listening via the speaker has been described as a cruel and unusual punishment. I’ve added an extension speaker which makes an enormous difference.

The radio operates using the Wadley Loop principle. Basically, this takes harmonics in 1MHz steps from a 1MHz oscillator to set the MHz part of the received signal. This is done using the large knob at center right with the selected MHz band shown on the bottom part of the display.

The kHz setting is tuned by the large knob at center left and the frequency display uses 6’ of 35mm film (remember that?) so tuning is quite precise. There is a calibrator to allow accurate adjustment at every 100kHz. In practice, I’ve found that there is only a very slight non-linearity across the full 1 MHz range. The clever thing about the Wadley loop is that it compensates for drift. It does this by a loop that ensures any oscillator drift is present in both components of one of the IF mixers, so the output difference frequency is constant. There is also a pre-selector controlled by the two controls on the right, Aerial Range and Aerial Tuning which makes for a very sensitive and selective receiver.

Oddly my previous and first HF receiver, the Yaesu FRG7 (another great radio) also used the Wadley loop with the same tuning arrangement as the Racal so I thought this was standard on all communication receivers.

The stability of the Wadley Loop coupled with the efficient pre-selector and excellent filtering, switchable from 13kHz down to 100Hz makes for an impressive receiver. Listening to CW through the 100Hz filter is great fun.

It’s not perfect though. Its faults are well known by the radio’s many fans. One downside is that SSB and CW are resolved by the simple process of injecting a BFO into the AM detector. This is OK for CW but makes tuning SSB difficult. A separate SSB adaptor was available and included a CRT tuning aid but I have never found one in good condition. The real disadvantage of this method as implemented is that it over-rides the AGC and you need to switch AGC off if you want to be able to use the RF gain control. It also floods the RF metering with the BFO signal so that the meter just sits at close to FSD regardless of the strength of the tuned signal.

The other challenge is its useability for the radio amateur. It is great for sitting on a frequency for days on end with no drift but rapid scanning of the bands is not straightforward. Imagine you are tuned to 3.750MHz and want to check out 10 MHz. Switch the megacycle dial from 3 to 10. Adjust the kHz dial from 750 to 0. Switch the Aerial range from 2-4MHz to 8-16MHz. Adjust the Aerial tuning for max noise. Now adjust the kHz again to find a station and keep moving the aerial tuning to match. Found a station? Great. Now adjust the BFO until it is intelligible. And if you want to adjust RF gain you will have the AGC off so watch out for any loud station you may come across! But this is all part of the fun of operating an old radio!

The equipment above the receiver is the LF adaptor:

The main receiver’s sensitivity falls off fairly rapidly below about 1MHz and this additional unit compensates for that and takes the operating range down to 10kHz which should be low enough for anybody! It’s simple to use, there is a switch to put it in or out of circuit and when it is in circuit the three controls (Attenuator, Aerial Tuning and Aerial Range) replace the same controls on the main receiver. You use the main radio kHz dial to tune to a frequency. Like the main receiver, it has very high Q filtering so adjusting the Aerial tuning is critical. I use it occasionally to monitor LF aircraft beacons but mostly to listen to AM broadcast stations. With the wide 13 kHz filter selected and a good external speaker it sounds great.
Finally the large unit at the bottom of the rack. This is the MA 197B Pre-selection and Protection unit. This goes before the front end of the main receiver and provides a very high degree of filtering in the 2MHz to 24MHz range. By high I mean it can block up to 40 volts of RF according to the manual with 85 – 100dB of attenuation of a signal 5% or more away. You could transmit into this and your receiver would still be OK. It is designed to overcome the problem of operating an HF receiver in close proximity to high power transmitters for example on warships where you may have 1kW RTTY running to ‘a common aerial working system’. It is great to experiment with, but the challenge is you can’t easily tune the bands, the setting is so sensitive that as soon as you move frequency on the Rx by a few kHz it is deaf until you adjust the preselector. But it has been useful to filter out heavy broadcast station interference sometimes. It has no facility to bypass the filtering so like many others I have modified the switching so that selecting the 24-30MHz band (where the filtering does not add much) actually bypasses the entire unit. That makes it a lot more useable.

Well as I said, this radio has been with me a while. I don’t use it every day but it is always nice to see it sitting there in my radio room and I wouldn’t be without it!

SELL THE SIZZLE, NOT THE SILICON
DON KISER, AC2EV

Last month I presented you with two Morse keyer projects. I hope that some of you are well on your way to building some keyers. For the rest of you, why not? This month the project goes from breadboard to perfboard and into a forever home. Along the way the way a few lessons were learned. I’ve also found some new products you might like.

Before we get on to the final project here’s some products you might like:

Normally you don’t get excited about wire but after trying this out, I’m more than pleased. This is stranded wire with a silicone coating. This means no melting insulation from the soldering iron. It’s also very flexible. Great for projects like this.

TUOFENG 24 Gauge wire-Stranded Wire Kit-24 AWG Flexible Silicone Wire
http://amzn.com/B07G2BWBX8

PAM8302 2.5W Single Channel Class D Amplifier Module

This is the amplifier I used for my project. During the quarantine, Adafruit is on hiatus unless you’re an essential business. There are plenty on eBay for anywhere from $1.99 to $12.00 for a pack of 10.
Now on to lessons learned. When using liquid flux make sure you thoroughly clean your board and ensure everything is dry and double check your resistances. After doing the following I noticed that my keyer wasn’t working, then I smelled the smoke and heard a sizzle. Somehow some flux was still under the 5-pin connector of the audio amplifier. This took quite a bit of debugging and I found 200Ω between power and ground on the audio amplifier. This took out the audio amplifier. Needless to say a new amplifier is on the way so the project isn't completely finished. The voltage regulator on the Teensy was probably stressed also but for now it’s still working.

Arduinos/Teensys out of the box have un-initialized EEPROM. This means that the project settings may not write to the EEPROM and you’re left with whatever is there. For this project I found the WPM defaulted to 255 and the sidetone to some unknown value.

When testing your WB8NBS keyer for the first time I suggest using the Serial console to initialize the variables. The following commands may be helpful. My suggestion is to issue a - until you get to a WPM you’re comfortable with. Then set the sidetone. Finally issue a w to commit the values to memory.

- \+ or \= increase sending speed one Word Per Minute
- \- decrease sending speed one Word Per Minute
- \u increase sidetone frequency by 5%
- \d decrease sidetone frequency by 5%
- \w save current sidetone frequency and WPM to EEPROM memory
- \1, \2 … \7 send stored text as though a memory button was pressed

These should get you up and going without too much trouble.

As for my final project. I decided on a free-form layout and didn’t really plan much in advance except for the USB and paddle jack layout. You’ll notice the amplifier board is missing on the upper left of the perfboard. On the front panel the memories are the first 4 buttons and the function key is on the right, lowered ever so slightly. I left room for the 2nd jack to key my rig if I decide to do that at a later time.
Wow, it’s been two years since I received my 20-meter QCX QRP transceiver from QRP-Labs. They began selling kits in August 2017, so I consider myself one of the “early birds.” My serial number in early January 2018 was 2603. Back then I was told they had already ordered six batches of 500 kits each. QRP-Labs markets single-band transceivers (80, 60, 40, 30, 20 or 17-meter band), along with peripherals.

In the beginning, QRP-Labs shipped from Japan, if I remember correctly. It took too much time to deliver orders, so they switched to a supplier in Turkey. Since 2017, the cost of the kit has increased from $49 to only $55, not bad for a great rig. An upgraded QCX+ replaces the first release. The differences and new features are available on the website, at: QRP-LABS.com.

After building my kit, I went back to the trough and bought their 20-watt Dummy Load kit and the QLG kit. It is a GPS receiver for use with the transceiver when syncing WSPR transmissions. Today the dummy load still costs only a whopping $8.50, and the GPS receiver will set you back just $23.

I built my own enclosure, using a CB mobile radio case. After sales took off, QRP-Labs began offering an enclosure that permitted the LCD readout to be plugged straight into the board. I moved my readout to the front and connected it with patch cords. A newer QCX enclosure has a higher quality finish (anodizing process after drilling/cutting) and features control labels.

Build It With Elmer Help
The RXCWG Morse Code crowd in the Rochester area is running a build-it project. If you’ve not tried your hand at kit-building and want to participate: not to worry. There are NO surface-mounts to make. The online manual is superb, and RaRa Elmers will guide you through each construction step. All you need is an appropriate soldering station and a little practice before starting. Elmers will work with you, using an online platform like Zoom, FaceTime, or Skype. Karl Heinz Kremer (K5KHK) is also a proud owner of a QCX rig and an Elmer par excellence. Try your hand. Stay-at-home has its hidden advantages.

Here’s why an Elmer may be of use to you. We’ve made our own mistakes here and there. If you are counting, here’s what I did. Either I didn’t read the directions closely enough and think about what I was doing. I got sloppy and made a solder bridge. Or I became over-confident, thinking I knew how a “real ham” winds toroids. What a ninny! It’s embarrassing to find out you created the problems. Nothing – nada – was wrong with the radio’s design or the parts.

This radio may look complicated, but its architecture is really straightforward. All the high-tech stuff is found in two onboard chips. What’s better: the main chip has diagnostic tools, which you use to align the radio for optimal signals on send and receive.

I beefed up the kit, as advised, by cobbling together a heat-sync for the three transistors in the final. I knew I would be adding the GPS for WSPR operation, which runs full duty for 1 minute and 52 seconds on each iteration. It was a wise choice; now I have no fears of burning up the finals.

How Does It Stack Up?
This rig really works! I chose 20 meters because I wanted to test its DX pedigree. It sure measured up. My first QSO was on January 27th with Aruba. The second was from the Left Bank in Paris. Other DX contacts through the next months were in Brazil, Equatorial Guinea, Republic of Congo, Germany, and Ecuador. Then I snagged the DXpedition team, ZR0YD on Easter Island. QSOs in the States were a piece of cake. Of the seventy-eight contacts I made by April 22, fifty-four of them were DX. I had the brief idea of trying for a personal QRP DXCC, but the postage would have cost much more than the transceiver, so I gave up on that.

As for WSPR (Weak Signal Propagation Reporter), I had a lot of fun adding the GLP1 to see how far my four-watt signal was being automatically copied and uploaded online. My contacts on the map were all over the U.S., South America and Europe. I did all this with an 80 meter center-fed Zepp at 35 feet and a QRP tuner.

You can do almost anything with this radio, except bake biscuits. There are more than 80 operating parameters stored in non-volatile memory (EEPROM). The menu is operated using three controls on the front: press the tuning knob and two more pushbuttons. You have, RIT, two VFOs, a keyer (Iambic A/B, Ultimate or straight key), and automated transmission modes (12 message memories). And best of all for CW newbies: the readout prints the incoming CW signal. (You don’t want that? Then turn it off.) Change sending speed at will, and set the tuning rate with a couple of pushes of the tuning dial (1KHz down to 10Hz). Go into the menu for everything else using the left pushbutton and back out again using the right hand button. Just set which parameter you want.

Bill Hopkins, AA2YV

The QCX Transceiver Kit

QCX Installed in a CB Radio Chassis
The Enclosure
Forest, WA2MZG, has a few black, aluminum plates with rubber feet that would make a nice mounting plate for your QCX. They are 5.5 inches square or 8.5 inches square. They are available free to QCX Build It Project participants, while they last. This is not a complete enclosure, but it will help protect and stabilize our QCX when you are operating.

Video To Go
The following link will provide a video of Bill Hopkins’ QCX in operation.
QCX Video By Bill Hopkins, AA2YV

Please send your feedback on this new feature to: fshick3@gmail.com

Honoring an Old Friend
Gary Skuse, KA1NJL

When I moved back to Rochester in 1986 I soon met Fred Cupp, W2DUC. We shared an interest in packet radio and spent many hours over the next few years talking, operating and, most importantly, learning. Even though I already had my Advanced class license by then, Fred was a patient and enthusiastic Elmer who taught me countless things about radio. Fred proved to be a ham’s ham. He taught me how to translate printed schematics into actual physical circuits, how to tune radios that were designed for use on the commercial bands for amateur use and how to do many of the radio-related things I take for granted nowadays.

One of those things is the ham radio breakfast we enjoy every Saturday morning in Fairport. Each week many of us gather for coffee at 7:00am and that meeting was started in the 1980’s by Fred and Jim Centanni, W2IMK (SK). I remember being thrilled when I was first invited to join those two “real hams” back in the day and today that meeting has been ongoing every week since. Our common interest in digital communication led to the formation of the Digital Communications Association of Perinton (DCAP), the club that hosts the KB2VZS repeaters in Fairport. To this day the bylaws of the club include a requirement that members attend the Saturday breakfast.

Some time ago Fred retired and moved to Pennsylvania. Unfortunately, I’ve only seen him a couple of times since, when he was visiting family in Fairport. In addition to ham radio Fred was an avid model train enthusiast and his videos are still available on Vimeo. Fred was passionate about all of his hobbies. I don’t know how he is currently doing but a little more than two years ago his license expired. Knowing Fred, I can’t imagine that’s good news. However, a couple of weeks ago Bob Kester, K2JJT suggested that we secure Fred’s call for the DCAP repeaters. I cannot imagine a more fitting tribute to Fred than to have his callsign immortalized on the repeaters maintained by the club he helped start. The FCC has granted our request and soon the KB2VZS repeaters will be renamed the W2DUC repeaters. From now on every time we hear the repeater identify itself Fred’s contribution to ham radio, and my personal growth as an amateur, will be acknowledged. What a great way to honor an old friend!

Antique Wireless
Gift Membership Challenge!
Dean Faklis, NW2K

Just a quick note to mention AWA's Gift Membership Challenge. It's a membership drive designed to promote the benefits of AWA.

This membership drive is important to AWA. The Challenge works like this...AWA members can purchase gift memberships for anyone including close friends, family, and acquaintances. These new members receive all of the benefits of membership, at a discounted price, for one year. Once they begin to enjoy all that AWA has to offer, they will want to renew their membership in later years. It's really a great value.

We need to introduce new people to our technology, history, and future. The price is $20 per gift for online journals and $30 per gift for mailed journals. The cost of a gift membership is about the cost of taking your friend to a modest lunch or breakfast.

If you’re a member, please consider your family and friends and see if you can give several gift memberships to help grow AWA into the future. We've targeted an organization-wide goal of 200 new gift memberships!

And...the AWA member that gives the most, wins a $50 shopping spree at the Museum Store. Details are at the link below. Payment is easy...check, Paypal, credit card.

https://antiquewireless.org/homepage/gift-memberships/

If you have any questions, please send me a note, dean@antiquewireless.org. If you need any help with the forms, I will take care of it for you.

We have already received gift memberships and are on our way to our goal of 200. These gifts are a great way to say Thank you and I Really Cherish Your Friendship.

Thank you very much for your mindful consideration and Happy Gifting!

NOTE Membership form at the end of this issue.
It has been over 5 years since I last wrote a Ham Tech article for the RAG. The current pandemic has given me more free time than I had hoped for so I decided to give Winlink another try. Winlink is the global radio email program. You can send email via an internet connection similar to a Gmail account or you can send the message via ham radio. It works on VHF and HF. Jim DiTucci, N2IXD, did a presentation on Winlink over 10 years ago at a RaRa meeting. Jim also had a VHF gateway that you could connect to and send your email. The software has come a long way in the last 10 plus years. I remember downloading multiple programs in order to use the sound card in my computer as a TNC.

The preferred program today is Winlink Express and all the software you need is in the one download. The software can be found at https://www.winlink.org/WinlinkExpress and scroll to the bottom of the page for the download link. The program is quite popular with emergency communication groups. Install the program and launch it to get the screen in Figure 1 minus any messages.

In order to get your new account established you will need to send yourself an email to another account that you may have. Click on Message and select New Message. When done with the message you will need to post it to your outbox. There is a menu option at the top, click on Post to Outbox. Your message could look like Figure 3.

The first step is to go into Settings and select Winlink Express Setup. Fill in the information as I have shown in Figure 2 to set up your account. Click Update when done entering your information.
Posting to Outbox will take you back to Figure 1. To the right of Open Session: in the menu bar is a pull down menu for the various options to send this message. For this first message to get your account established, leave it on Telnet Winlink which is the internet connection option. Now click on Open Session: to get a new blank window. Click on Start to send the message. It will also retrieve any incoming message as you use the program more. Figure 4 is what you will see after the message is sent. The session will auto disconnect when done sending and receiving. Close the window to get back to your main screen as in Figure 1.

Now that you have your account established it is time to turn your attention to the HF side of sending email. If your station is currently working on the digital modes such as FT-8 or PSK31 to name a few then this next step should be a slam dunk. Create another email and post it to your outbox. Do not open the session yet. You will need to change the Telnet Winlink to Winmor Winlink if using a soundcard. This is what I am currently using. Now click on Open Session.

Two new windows will open, One is the Winmor Sound Card TNC and the other is the Winmor Winlink Session. In the latter you will need to click on Settings and then Radio Setup. Figure 5 shows what my radio settings look like. This will be similar to the settings that you have used in other digital programs. When done click on Update. Also under Settings is Winmor TNC Setup which shows the soundcard that is being used. I did not have to change anything here.

Now you need to find an HF station to receive your email message. Click on Channel Selection to get the window in Figure 6. Here you select a 40M or 80M station with a high estimate of success. I tried a couple times on my first attempt to find a station that would connect and take my message. If your radio uses VOX to activate the PTT you may have to adjust the VOX delay in your radio. My radio was set at 600 milliseconds and I had to back it down to 100 milliseconds. When the program tries to connect it will show you the transmit delay so keeping the delay under 250 milliseconds will improve your odds of connecting.
Now that you have your radio setup and selected a station with a good chance of connecting you are almost ready to send. Don’t forget to tune your radio for the new band you may have shifted too. If the channel is not busy click on Start in the menu bar as shown in Figure 7. If it connects, your message will be on its way. Sometimes you may have to try 3 or 4 stations before one will connect. Propagation can be a little challenging these days. Keep the first message small as it is a slow sending process.

I found the setup quite easy since I am already active on digital modes. I found this video helpful on how to send the message after it is created. [https://youtu.be/bEk0WphS5Q](https://youtu.be/bEk0WphS5Q)

I also discovered that your Winlink account will not receive an email from an address outside of Winlink until you have sent an email to that address. Pretty good spam control.

There is a group in Virginia that does Winlink Wednesday. Go to [https://www.qsl.net/k/kw6gb/Winlink_Wednesday/All_About_Winlink_Wednesday.pdf](https://www.qsl.net/k/kw6gb/Winlink_Wednesday/All_About_Winlink_Wednesday.pdf) for more information. This is good practice for staying current with the Winlink software.

When you get your Winlink email account set up and working please send an email to k2si@winlink.org using the Winlink program. Send one using Telnet (Internet) and then send one using Winmor (radio). I will start a list of active Winlink users and maybe we can start our own Winlink Wednesday for Western New York. If the interest is there we can expand beyond Western New York.

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<td>WA2HOY</td>
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Greetings;
Due to the recent pandemic of Covid Virus the Radio Amateurs of Greater Syracuse are reluctant to say we are cancelling the RAGS Hamfest on July 11, 2020. We are sure you will understand as we are not even sure if the venue will be open and available.

The ARRL web site will also reflect this cancellation.

We will be looking forward to seeing you all at Hamfest 2021 thinking positive that conditions will be better by then.

On a brighter side we will however still be having several drawings as usual using the pre-sale tickets purchased by many for our prizes.

Thank you,
Roger WA2AEW
RAGS Hamfest Chairman
Have you ever operated outdoors at a historic site? Have you ever seen the Port of Rochester from the top of a 197 year-old lighthouse? You can do both and more by joining us for the 2020 International Lighthouse Lightship Weekend (ILLW) at the Charlotte-Genesee Lighthouse on Lake Ave. in Rochester's historic Charlotte neighborhood. This year the event is on August 22 & 23 and we will be operating (at least) 2 stations using special event call sign K2R from 11 am to 5 pm both days. Come help us operate and talk to lighthouse visitors about amateur radio. Yes, we do hang our antennas from the lighthouse tower!

An annual event since 1998, ILLW began as the Scottish Northern Lights Award run by the Ayr Amateur Radio Group. The history of the event can be found at https://illw.net/. This event has grown to attract over 500 lighthouse entries located in over 40 countries. This is a great event for all experience levels. It is not a contest and there are no prizes. If you would like to help staff this event and get a tour of the lighthouse, sign up at https://www.rochesterham.org/

Here is a little more about the history of our Rochester lighthouse: Founded in 1983, the Charlotte-Genesee Lighthouse Historical Society’s mission is to preserve and maintain the Genesee Lighthouse Tower (1822), the Lighthouse Keeper’s House (1863), and its historic acreage as an educational center. Open to the public, local residents, and visitors from around the world can learn the story of the Charlotte-Genesee Lighthouse, lock-ups of Charlotte, and saving Lives on Lake Ontario by the Government Agencies of Charlotte. There is also a display of Ontario Beach Park, marine history, and the International Peace Garden. As commercial marine trade increased, so did the need to establish a lighthouse for safely guiding boat traffic into and out of the “Port of the Genesee” whose entrance was partially blocked by sandbars. In 1822 the United States Government acquired the choice bluff site and solicited proposals to build a lighthouse, lantern, dwelling house, and well, at the mouth of the Genesee. Another larger dwelling house was constructed in 1863.

The Light Station has delayed the April opening because of COVID-19. When they are open for regular visitation: April – October 2020, Fridays, Saturday & Sunday; 1 – 5 p.m. Other times by Appointment Only.

Learn more about ILLW weekend sites at https://illw.net/

As soon as I saw the CW Build It Project for RXCWG, it looked like a lot of fun, so being the webmaster, I immediately tested the web link and then could not resist buying one. It just arrived at Rag deadline; so all I have to show is the unpack:

I ordered the 20M version, the enclosure and PA. The enclosure and PA got back ordered, but that’s ok, this will keep me busy for a few hours.

See the https://www.rochesterham.org/rxcwg.htm for details. If you have not built a kit of this density or wound torrid transformers, I would recommend Elmering. Thanks Forest (WA2MZG) and Karl Heinz (K5KHK) for setting up this project!
20 Years Ago, June 2000

I usually start this review of the past RaRa Rag with the meeting announcement for the following month. Not this time as there is no next month. RaRa then was following a long tradition of cancelling face to face meetings and printing of the Rag during July and August, as they are now, but for different reasons. Sure, Zoom has replaced face to face meetings and summer picnics and Field day will include ham families in their back yards, but this too will end in some form of normalcy. I’m fairly sure the RaRa Historian, reading this twenty years from now, will wonder about lack of face to face gatherings and something called Zooming! We do have news as you casted your votes and elected the following officers for 2000/2001: President Keith Freeberg N2BEL (sk), Vice President Peter Fournia W2SKY, Secretary Howard Greenwald AA2HD and returning as Treasurer Dick Goslee K2VCZ. To the Board of Directors: Ed Holdsworth N2EH (sk), Jack Tripp N2SNL, MaryKay Vesco KC2DPG, Allen Skiles W2AES, Jamie Ananko N3SSS, Tom English N2YJY and Scott Blystone K9EEE. A Picnic Reminder was published by Irv Goodman AF2K, telling all to attend the annual RaRa picnic held at Ellison Park South Lodge. There you would have found K2JD/2, the bright green with yellow lettered RaRa mobile van where you could sit and operate on the HF bands and if wanting exercise join the eager on-foot guys and gals taking part in the hidden transmitter hunt. Even though it’s old news this issue covered the just completed 2000 Rochester Hamfest that, with cooperative WX on all days, was a great success and a good time had by all. Two full pages of happy attendees and award winners were printed in this issue. Howard Greenwald AA2HD, RaRa Secretary and a local practicing Attorney, penned an important article endorsing the work of Frank Fallon N2FF, who wrote to encourage all Amateurs to write their Assemblyman and support Bill 9947 that would become Amateur Friendly Law PRB1. This issue had three interesting guest authors that included first; Michael Bowen KC2BTW, who got published to inform people of the World-wide Scouting program called Jamboree On-the-Air, or simply JOTA. Michael went further to tell of the extensive planning for this year’s event in October where HF SSB/CW, OSCAR and FM operations were planned. The next guest was Karen Grover, representing the Rochester Sister City program, who wrote telling of the need for a volunteer ham family to accept an exchange student (and ham) from Germany. And finally our world traveler, Ron Earl Roach W2FUI, wrote on his most recent of several visits to China. This article related how difficult it was for Chinese hams to acquire ham radio equipment. Ron went on to tell of his experience going through customs where a simple electronic keyer, being brought in as a gift for BY4AA, was almost confiscated by authorities until a young Chinese boy who saw the event unfolding, was able to act as an interpreter and save the day. In his monthly DX Report column Ed Gable K2MP, told of the fabled 7O1YGF operation to Yemen, a much needed country by DX’ers world-wide, where the government told them to shut down after 35,000 contacts were in the log due to licensing irregularities. Luckily for those 35,000 hams the DXpedition was allowed DXCC credit but only after a year of debate. Better news was the return of Bhutun (A5) to the air with a large multi-national team operating A52A. Tom English N2YJY, writing for the Rochester Radio Repeater Association, RRRA, told of their next meeting to be held then, as they are now, at the Pittsford Town Hall. Tom further advised that the 28/88 technical committee is working to install a Northern Voting Receiver in Greece shortly. With regret it was announced that Bill Theil K2KGE, was reported as a Silent Key. Bill, a past RaRa President in 1982-83, was remembered in a nice article written by Lloyd Caves WB2EFU. There were no Want Ads in this issue, however Glennwood Sales on Hague Street, remained a very long term commercial advertiser.
In signing off as President, Alan Komenski AC2K, offered special thanks to past Officers and Board members who are retiring after years of faithful service to RaRa. Alan recognized: Len Gessin WA2ZNC, Ed Gable K2MP, Ron Jakurowski K2RJ and Jim Collinsworth N2JC (sk). Alan also called out these deserving members for their more recent service: Dwight Hill K2KWK, RaRa Editor, Irving Goodman AF2K, Membership Chairman, George Muller WA2IEO, Refreshments, and Helen Smith WA2YRH, head of the RaRa Rag Support Staff. (The truth is there was only Helen – Ed) Finally, Alan closed his last President’s Desk column by singling out Harold Smith, K2HC (sk) for his tireless efforts in producing yet another excellent Rochester Hamfest. Ed Holdsworth, N2EH (sk), wrote to tell of the recently completed RaRa Road Rally that saw these ham member teams come in 1st through 5th place of eighteen entered: Neil Gibson WA2EJU, Ken Martin WB2PLI, Doug Wilson KA8IGS, David Payne KA2J and Steve Holdsworth WA2EJY. Bob Roberts, WA2OAU, penned his For DX’ers Only column with the topic of how to be at the right place at the right time in the quest for finding that rare DX on-the-air before the day of on-line DX clusters. Bob related a story only a DX’er could appreciate. He told of the then rare Canary Island DXpedition, EA8CD, which was on-the-air, with no other than Martii Laine, OH2BH, at the mic, asking for dimensions on how to assemble a yagi. Bob jumped in and eagerly gave the team...the wrong information! They operated the rest of the DXpedition with their ten meter yagi with its reflector and director in the wrong position. Martii never forgot that and he even remembers Bob with a Christmas card every year. The Rochester VHF Group announced their new leadership slate as: Tom Richmond WB2IEY, Chairman, Harold Munday KB2ER, Vice-Chairman and Pete Sitter N2AJK, to Secretary/Treasurer. Appointed to Contest Chairman was John Yells N2JY. There were two, when joined, Want Ads that made you think. The First "Found Heath HW-2036, call 482... The other read "Recovered, Heath HW-2036, if you can identify call 442... Evidently HW-2036’s were slippery! No problem though as a local commercial advertiser was the Heathkit Electronic Center, 937 Jefferson Road, eager to sell you as many HW-2036’s that you needed. (How many of you remember that the Heathkit Center’s General Manager was one of RaRa’s most active contributors, Dick Goslee, K2VCZ ?)
The next **ALWAYS FREE** testing session:

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

You do not have to preregister.

To avoid giving your SSN go to:  
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

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**New licensees names are in BOLD**

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<td>W2NED</td>
<td>Pittsford</td>
<td><a href="mailto:w2ned@frontiernet.net">w2ned@frontiernet.net</a></td>
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<tr>
<td>Tim Brown</td>
<td>WB2PAY</td>
<td>Ogden</td>
<td><a href="mailto:tjbrown@rochester.rr.com">tjbrown@rochester.rr.com</a></td>
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<tr>
<td>Pete Fournia</td>
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<tr>
<td>Bill Hopkins</td>
<td>AA2YV</td>
<td>Brighton</td>
<td><a href="mailto:whopkin4@naz.edu">whopkin4@naz.edu</a></td>
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<td>Bob Karz</td>
<td>K2O1D</td>
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<td>Harry Williams</td>
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<td>Batavia</td>
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<td>N2AJX</td>
<td>Henrietta</td>
<td><a href="mailto:lawrence.hill@rit.edu">lawrence.hill@rit.edu</a></td>
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<td>Tim Magee</td>
<td>WB2KAO</td>
<td>Greece</td>
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**Please continue to check either the RARA webpage or Laurel VE page at [https://www.laurelvec.com/index.php?team=RARA](https://www.laurelvec.com/index.php?team=RARA) for the latest information.**
# RaRa Calendar

**Tim Barrett, K9VB, Membership Secretary**

## June 2020

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<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
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<td>AWA Net 145.110 MHz, 7pm</td>
<td>RXCWG CW Practice Net 9pm</td>
<td>RaRa Monthly Mtg ONLINE 7pm</td>
<td>RaRa BoD 6:30pm ONLINE</td>
<td>HA3NS Memorial Sprint 40/80M</td>
<td>10/10 PSK Contest</td>
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<td>Phone Fray</td>
<td>ROC City Net 3.810 MHz, 8pm</td>
<td>ARES Net 146.810 MHz, 7pm</td>
<td>ARES Net 146.610 MHz, 7pm</td>
<td>PVRQ Reunion</td>
<td>IARU Reg 1 Field Day (CW)</td>
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<tr>
<td>ARS Spartan Sprint</td>
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<td>CWOps Mini-CWT Test</td>
<td>NCC Sprint</td>
<td>NCC RTTY Sprint</td>
<td>Dutch Kingdom Contest</td>
<td>KFCQ QSO Party</td>
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<td>SMIRK Contest</td>
<td>Asia Pacific Sprint SSB</td>
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<td>Phone Fray</td>
<td>Phone Fray</td>
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<td>DRCG WW RTTY Contest</td>
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<td>RTTYOPS Weekend Sprint</td>
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<td>ARRL VHF Contest</td>
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<td>RED DDFM 6m Contest</td>
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<td>RTTYOPS Weekend Sprint</td>
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<td>AWA Net 145.110 MHz, 7pm</td>
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<td>RXCWG CW Practice Net 9pm</td>
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<td>RTTYOPS Weekend Sprint</td>
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<td>All Asia DX Contest, CW</td>
<td>RXCWG CW Practice Net 9pm</td>
<td>ROC City Net 3.810 MHz, 8pm</td>
<td>ROC City Net 3.810 MHz, 8pm</td>
<td>ARES Net 146.610 MHz, 7pm</td>
<td>ARRL Field Day</td>
<td>UFT QRP Contest</td>
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<td>Ukrainian DX Contest (RTTY)</td>
<td>AWA Net 145.110 MHz, 7pm</td>
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<td>CWOps Mini-CWT Test</td>
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<td>King of Spain Contest, SSB</td>
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<td>IARU Region 1 50MHz Contest</td>
<td>RXCWG CW Practice Net 9pm</td>
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<td>Ukrainian DX Contest (Digi)</td>
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<td>Stew Perry Top Band Challenge</td>
<td>RXCWG CW Practice Net 9pm</td>
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<td>ARES Net 146.610 MHz, 7pm</td>
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<td>WAB 50MHz Phone</td>
<td>RXCWG CW Practice Net 9pm</td>
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<td>ARES Net 146.610 MHz, 7pm</td>
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<td>Run for the Bacon QRP Sprint</td>
<td>RXCWG CW Practice Net 9pm</td>
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<td>ARES Net 146.610 MHz, 7pm</td>
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<td>QCX Challenge</td>
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<td>ARES Net 146.610 MHz, 7pm</td>
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<td>King of Spain Contest, SSB</td>
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<td>10-10Int Spirit of 76 QSO Party</td>
<td>QCX Challenge</td>
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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.monroecountyemcomm.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

ROCHESTER DX ASSOCIATION, RDXA

There will be no physical meeting at the EOC.

Information will be sent to RDXA members and other local clubs on a Zoom meeting, Tuesday 18 June at 7:30PM.

This meeting will discuss ways that members and other interested parties can participate in Field Day without the “normal” preparation we've been accustom to. “Activity Hours” and other QSO generation ideas will be presented.

Check rdxa.com for details

ROCHESTER RADIO REPEATER ASSOCIATION

Due to the Covid-19 virus and most of our members being older, the RRRA Board apologizes for canceling our May 15th meeting. Hopefully conditions will change for our next meeting. On May 15th we held an informal club meeting on the Megaplex system and accepted nominations.

The Rochester Radio Repeater Association, RRRA invites you to attend its June 19th, 2020 meeting. Meetings are held on the 3rd Friday of the month in the Pittsford Town Hall Basement starting at 7:30 PM.

RRRA will try to reschedule the Auction for later this year. The June 19th meeting will be open for nominations and elections for becoming a RRRA Board officer. If you would like to be on the RRRA Board feel free to nominate yourself. Officers open will be Treasurer, Secretary, and Vice President. The current Vice President ascends to President. Check out our web site for any last minute cancelation notices. www.k2rra.org Remember, This club can't exist without members. Please consider joining and volunteering to become an officer of RRRA.

Due to our current health crisis please check your organizations web site for the status of meetings and events.
The elected RRRA 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 RRRA, you can join at our monthly meeting or on our web site www.k2rra.org.

**ROCHESTER VHF GROUP**

We're On-the-Air and On-line!

Use that license (and HF+VHF transceiver) that you worked hard to get! We’re on-the-air at 9:00 PM on Mondays (144.260 USB) and Thursdays (50.200 USB). Horizontal antennas work best, but verticals work, too. Join us, On-the-Air! No VHF SSB? No problem. Tune into the net through Echolink node: ka2ene-L #23426. Warning: VHF SSB operations can result in increased fun and longer DX QSO's.

**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.

Both CCARES and ARAST monthly meetings will be held online until further notice. Check out the Upcoming Events on arast.info for particulars.

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.

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.

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.

**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.

Due to our current health crisis please check your organizations web site for the status of meetings and events.
**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/](http://drumlinsarc.us/)

**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 2nd 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](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 Road 48, Town of Hopewell. We have License Exam Testing every other month which begins at 6:30PM. The meeting for Wednesday, June 10th will most likely be held on the air, using the SIARC 146.820 repeater starting at 7:30PM.

SIARC is also holding a Health and Welfare NET Monday through Saturday each week at 2000 hours on the SIARC 146.820 repeater (located in Canandaigua, NY), Tone 110.9. This net is to pass along general information and keep hams in touch. All hams are invited to participate.

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:**

**Considerate**
Never knowingly operating in such a way as to lessen the pleasure of others.

**Loyal**
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.

**Progressive**
With knowledge abreast of science, a well built and efficient station and operation beyond reproach.

**Friendly**
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.

**Balanced**
Radio is an avocation, never interfering with duties owed to family, job, school or community.

**Patriotic**
With station and skill always ready for service to country and community.
Interlock Rochester - K2HAX - Rochester's Hackerspace

Visit our website at http://www.interlockroc.org/, contact us at 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 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.

For Sale

DMR Anytone AT-D878uv $140 or B.O.
- QBC 45L 12v 1amp charger
- GPS equipped

6 Meter Ground Plane Antenna $25

Contact Tim WB2PAY at:
education@rochesterham.org
or
585-750-2087

Cyclone 40 - 40 Meter CW Transceiver only $25
http://www.4sqrp.com/cyclone.php

Rockmite 40M CW Transceiver, only $15
With 2 crystal sets: 7.030MHz and 7.040MHz
http://www.qrpme.com/?p=product&id=RM4

TenTec Direct Conversion Receiver 1056 for 40M only $10
With the start of a CW transmitter

Contact Forest Shick, WA2MZG at:
fshick3@gmail.com
Or
585-721-1653
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Approx. size and cost—per year:
- 1/12 page: 3.4 x 1.85 $140
- 1/4 page: 5.1 x 3.8 $300

Your advertisement will be seen by amateurs in Rochester, Monroe County, New York State, the United States and even the rest of the world. RAG circulation is approx. 4,500.

Contact us for details at editor@rochesterham.org.

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**Please Support our Hamfest Sponsors**

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- **Ham Radio Deluxe**: 1 New License or 2 year Upgrade
- **N3FPJ**: Software Certificate
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Rochester Makerspace
David Duckles: rocmakers@gmail.com

Rochester Radio Repeater Association (RRRA)
Bob Shewell, N2HJD: bshewell@frontiernet.net

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**July Rag Deadline**

**June 15, 2020**

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

https://attendee.gotowebinar.com/register/5960842168228055056

**Contact Webmaster@rochesterham.org for Support**

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**Rochester Area Repeater Listing**

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**The RaRa Rag**

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Hotline – (585) 210-8910
Website – [http://www.rochesterham.org](http://www.rochesterham.org)
Let’s Grow AWA Together! And, Have Some Fun!
If You Believe in AWA… Accept the Challenge!

And the AWA Member who buys the most dollar amount of gift memberships will win $50 to spend at the Museum Store!

The challenge is to help introduce 200 new members to AWA.
- Thoughtful gift for a friend, that’s heard about AWA from you.
- Encouraging gift for your friend to share the fun, fellowship and learning offered by AWA.
- A fun gift to spark their interest in communication history.
- A meaningful gift for a young person to spark their interest in electronics and technology.

If you believe in AWA.....Give a Gift...or two...or more! As a current AWA member, you may purchase as many gift memberships as you like. Gift Recipients must not have held AWA membership during the past three years. Gift rates are good for their first year of membership only. Offer expires October 1, 2020.

You may choose from two different types of Gifts, both good for the new member’s first year of membership (you may order as many of each type as you would like):

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Please enter my order for _____ gifts at $30 each and for _____ gifts at $20 each. My check or payment information for a total of $_______ is enclosed

To order: You may order online at https://antiquewireless.org/homepage/gift-memberships/ or you can email this form when complete to Dean@antiquewireless.org. AWA accepts PayPal at WM3D@ARRL.net. For mail-in orders, please complete this form, enclose your check or credit card information and send to: AWA Gift Memberships, PO Box 421, Bloomfield, New York 14469.

Be sure to include your name and address. AWA will send a gift card, welcoming letter and new member information to each gift recipient. Questions? Email Dean@AntiqueWireless.org

YOUR Name:____________________________________
YOUR Address:____________________________________
YOUR Phone Number:______________________________
YOUR Email:____________________________________
Payment by:
____ PayPal to WM3D@ARRL.net
____ Check enclosed payable to Antique Wireless Association
____ Credit Card Number:____________________________
Expiration Date:________________________ Security Code:________________
Signature:____________________________________

RECIPIENTS Name:____________________________________
RECIPIENTS Address:____________________________________
RECIPIENTS Phone Number (if known):____________________________
RECIPIENTS Email Address (if known):____________________________
Type of Gift Membership: $30 _____ or $20 _____ to be applied to a one-year membership for this recipient.

Please list additional recipient’s gifts on a separate sheet. THANK YOU!