



THE RARA RAG

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

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AN INTRODUCTION TO THE AMATEUR RADIO EMERGENCY DATA NETWORK (AREDN)

BRIAN O'CONNOR, KA2CGB, RARA VICE PRESIDENT

Please join us for our monthly meeting on Wednesday, 2 June, at 7:00PM ET.

This month's presentation is by Mike Moore, KC2NM.

The AREDN is a high speed data network built with Amateur Radio Operators and Emergency Communications Infrastructure in mind. It has its beginnings in the Ham-net mesh network and it uses off the shelf commercial hardware with AREDN developed software operating in ham frequencies. The presentation will include:

- The AREDN coverage map
- How AREDN is used
- What equipment is available
- How to download and configure the software
- Field demonstration of an AREDN link
- Where to go for more information



KC2NM was licensed in 1967 as WN8ZPY in southern Ohio. He moved to Rochester in 1976 with a BSEE degree at the University of Cincinnati, and earned an MSEE from RIT. His career focused on software development for assembly and test equipment. Mike retired from Excelis (now Harris) in 2014

His ham radio interests include APRS, Allstar, DSTAR, and DMR. Mike has daily QSOs with his brother, Bob AL7MH, on DSTAR. He can usually be found on hotspot KC2NM-B or W2RIT-B.

In addition to Ham Radio, his interests include boating, biking, cooking, scouting activities and playing with 5 grandchildren. Mike is involved in project work at St. Louis Church Pittsford where he has streamed daily Mass during the pandemic.

Within RARA, Mike also serves as Treasurer, Public Service Coordinator, and Hamfest Committee member.

To register for the meeting, visit https://rochesterham.org/club_meetings.htm. Please arrive a little early to ensure you are completely set up. Hoping to see you then!



BOARDZ BUZZ

DAVE ENRIGHT, K3WHD

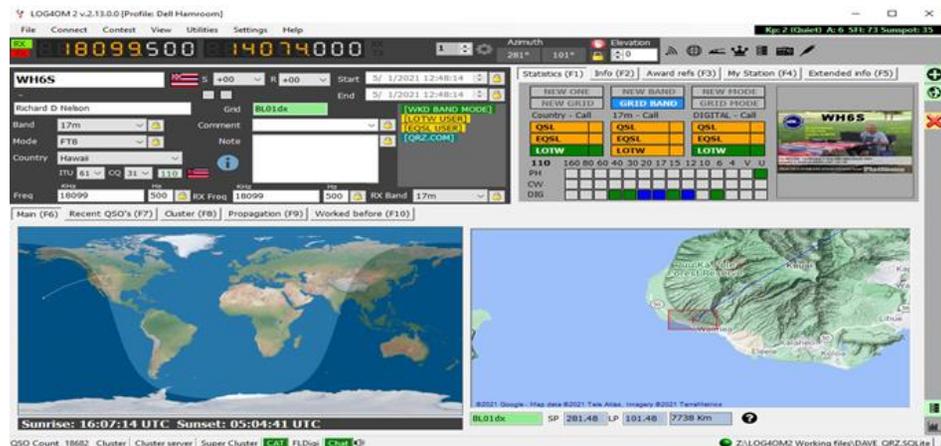
LOGGING PROGRAMS

Over the past few years I have tried a few logging programs both paid ones and free ones.

I first tried Ham Radio Deluxe paid version, it had a lot of good features for working the radio and various modes of operation. The logging part is very simple and not many features in that part of the program. I then switch over to N3FJP program package. The logging program like HRD is simple to use and does a good job. I mainly got the package for all the contests it supports. Scott added some great features to make contesting simple to setup and a lot of fun even for a new person to ham radio to use and try their hand on all the major QSO events. There is a one time fee for the package and all updates are free.

Being a computer guy, I like to play with different programs to see how they can make things easier for me to do things. So my hunt continued for **THE** program. I installed and looked at Logger 32, Swisslog, BBLlogger, DX Lab, and N1MM+ (another good Free contesting program). They are all good programs, but then I came across LOG4OM v2. I watch a few YouTube videos by G4POP (Terry Genes) and figured I would give it a go.

For me this FREE program has everything I was looking for in a logging program. The one big thing I like is that I have one database on my server and I have all my computers talking to it for logging things depending on what radio I am using. The other big thing, was a way to keep track of the QSL cards. I have sent out a few hundred and have gotten back that many from all over the world. If someone has taken the time to send me a card, I enjoy doing the same back.



The main screen, when you go to log a contact, will show you when you enter their call sign, their QRZ photo, what bands you have worked them on, what modes (PH, CW, DIG), along with a little map of where they live.



The next tab over is Recent QSO's, which will show you all the QSO's you have made. This screen has a feature that if you right click on a column. It will open a menu showing the fields you can select to view in the main panel and move them around in the order you like them.



CALENDAR OF EVENTS

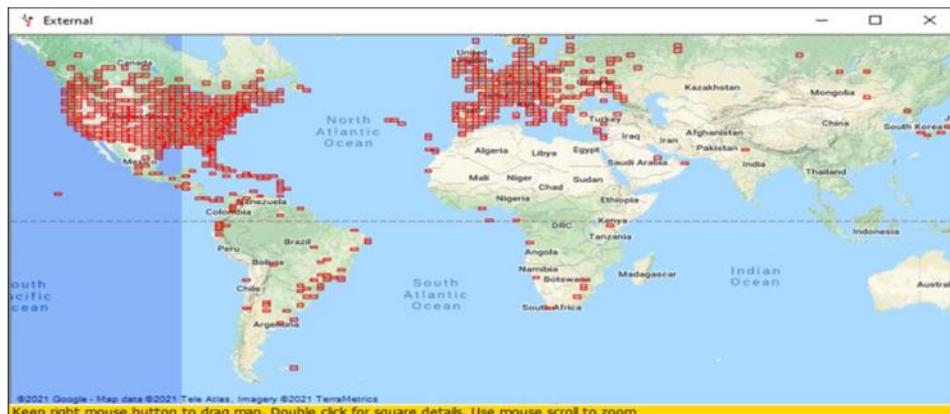
WEDNESDAY JUNE 2, 2021 - RARA General Meeting
7:00 PM - ON LINE

<https://attendee.gotowebinar.com/register/2464247865469311499>

THURSDAY JUNE 3, 2021 - RARA Board of Directors Meeting
6:30PM ON LINE

Email request for link to secretary@rochesterham.org

The propagation tab is a great feature to see how the band is doing that you are working on.



It has a built in grid map and awards tracker for you. This program works well in talking to JTAlert and FLDigi for me in logging calls. The setup is not that hard to do and has some very good on-line videos on how to use other features by the creator of the program. This is just touching on some of the main features the program has to offer. It would take pages to tell you about all of them.

The creator of the program is always trying to add and improve the program. He gets back to you fairly quickly, if you have a question, of which I had a couple. The manual in color, is 225 pages covering it all.

If you're looking for a good free logging program, may I suggest LOG4OM v2.
<https://www.log4om.com/>

(One side note as an old programmer myself, if you find a free program that you like to use, consider sending the person a few bucks for it. It gives all programmers reason to do improvement and keep it going.)

RARA PICNIC

July 10, 2021
Mendon Ponds Park

SAVE THE DATE HAMFEST

ROC City Net Hamfest
Saturday 28 August
Log Cabin Restaurant
2445 W. Walworth Rd.
in Macedon



EDUCATION

Over the past 3 years we have educated 43 Technician students, 33 General students and 12 Extra students.

	2019	2020	2021
Technician	7	16	20
General	15	0	18
Extra	8	4	0

RARA LICENSE COURSES

Karl Heinz Kremer, K5KHK, License Class Coordinator

As you've probably heard by now, Tim Brown WB2PAY has retired from his role as Education Coordinator. RARA has decided to split up this role into more manageable portions. I volunteered to take on the role of License Class Coordinator. Tim did a great job keeping the license classes going, even during hard times. So before I say anything else, let me say "Thank You, Tim!"

I come to this new role via teaching the Technician Class for the last couple of sessions. Running these classes is an important part of what we do to get more people involved in ham radio (or to get people more involved by way of upgrading their license). Helping new hams get into the hobby is important to me, and because of that I wanted to make sure that the license class program will continue.

If you are interested in upgrading your license or know of somebody who is interested in getting their first license, please get in touch with me.

If things don't go quite as smooth for the fall sessions, now you know why.

RARA ELMERS CORNER

Suzanne Bishopp, W2SUZ
Rich Bishopp, KD2UBJ
Elmers Corner Coordinators

Last Elmer's Corner of the Spring – June 5th, the first Saturday in June! We will be recapping the May 22nd RARA Academy at Black Creek Park. What did we learn? What questions do we have? What did you like the most?

We would also like to introduce ourselves as the new Elmer's Corner coordinators. We are – Rich and Suzanne Bishopp, KD2UBJ and W2SUZ. Rich has been a career firefighter for many years (we lost count). Suzanne has been working for an investment firm for 10 years which was a big change from the job she previously had in the nonprofit world. We were both very active with Scouts while our children were young and now that the kids are out on their own, we can spend our free time learning a new hobby – Amateur Radio. Rich received his Technician license in June of 2020, his General License in September of 2020 and his Amateur Extra in April of 2021. Suzanne received her Technician and General class license on the same day – March 2021. We are obviously both new to Ham Radio and clearly need a lot of Elmering...so who best for the role of Elmer's Corner coordinators!!!! TWO NEWBIES!!!! Even though we are new, we can help get you connected to the right person and get your questions answered – and learn something ourselves!

Help us help you, let us know what you need! Ham radio is huge. So many directions to explore. Antennas, CW, digital modes, POTA, SOTA, mic fright, contesting...and much more that we can't list here. There is no question too small. "The fool wonders, the wise man asks". – Benjamin Disraeli

The Elmer's Corner will take a summer hiatus and return in fall but don't let that deter you from reaching out to find an Elmer to help you. You can reach us at elmerscorner@rochesterham.org

JUNE ELMERS CORNER

Saturday June 5th from 10AM - 12PM

Join The Zoom Meeting

[https://us02web.zoom.us/j/83484674667?](https://us02web.zoom.us/j/83484674667?pwd=MG5DZXd6SFovN3lXa0NNTzM5UnBLUT09)

[pwd=MG5DZXd6SFovN3lXa0NNTzM5UnBLUT09](https://us02web.zoom.us/j/83484674667?pwd=MG5DZXd6SFovN3lXa0NNTzM5UnBLUT09)

Meeting ID: 834 8467 4667

Passcode: 786545

RARA ACADEMY WORKSHOPS

The ACADEMY needs a coordinator

It is YOU!

PLEASE VOLUNTEER

MORSE CODE TRAINING

The RXCW Group assists Hams wanting to learn Morse Code or to develop their CW skills.

BEGINNERS MORSE CODE ZOOM CLASSES

Peter Fournia, W2SKY, hosts Morse Code classes on Thursday evenings 7pm. No experience required.

Join the group at any session.

Register at: pfournia@gmail.com

MORSE PRACTICE FOR ALL LEVELS ON ZOOM

Tim Brown, WB2PAY, hosts code practice for all levels on Wednesday evenings at 7pm.

Register at: education@rochesterham.org

MORSE PRACTICE ON AIR

W1AW - <http://www.arri.org/w1aw-operating-schedule>

RXCWG

Tuesday	4pm	50.250 MHz
Tuesday	8pm	50.250 MHz
Thursday	11am	7.053 MHz
Friday	11am	3.553 MHz

To set up a cw sked, contact

Peter at pfournia@gmail.com or

Tim at education@rochesterham.org

PUBLIC SERVICE REPORT

MIKE MOORE, KC2NM, PUBLIC SERVICE COORDINATOR

June is normally the month where we participate in our largest public service event: The Tour de Cure. Prior to the arrival of Covid-19, we helped the American Diabetes Association with this bike ride in Monroe and Wayne counties with participation from SIARC and Drumlins ARC raising over \$1M to fight diabetes. This year again the event will be held as a virtual event and all 4 of the upstate rides are combined as a single virtual event. The ADA hopes that there will be in-person ride in 2022 but plans are that the upstate regions will be combined and no decision has been made regarding where it will occur.

I learned about a planned event that will replace the MS Society Roc the Ride in Genesee Park and have been talking up the [Bike MS: ROC the Great Lakes experience](#). I have disappointing news that there will not be a ham radio communications role for this event. The MS Society representative thanked us for our service with the events in past years.

Mark, KC2UES is staying in touch with the Fairport Crew Club regarding the Fairport Liftbridge Regatta. As of this writing, there is not yet a date on either the local or regional regatta website for it.

The date of the Scouts BSA Challenge Trophy Camporee is a week off of the Jamboree On the Air weekend of October 16. Crew members with whom I have spoken advocate putting on a demonstration during the Camporee due to the large number of youth that will be attending this event.

I will continue to track these events and report any updates that I learn about. For up to date information about all of our Public Service events take a look at our RARA website https://rochesterham.org/public_service.htm.

Please mark your calendars for our upcoming RARA Public Service Events

Fairport Lift Bridge Regatta	Erie Canal – Fairport, NY	TBD	TBD
Ham Radio Demonstration - CTC	Camp Babcock Hovey	Saturday	Oct. 23, 2021
Pumpkin Patrol	Overpasses of the New York State Thruway	Saturday & Sunday	Oct. 30-31, 2021
Holiday Science & Technology Days	Rochester Museum & Science Center	Monday - Wednesday	Dec. 27-29, 2021

RARA IS LOOKING FOR **VOLUNTEERS** **CAN YOU HELP?**

TIM BARRETT, K9VB RARA PRESIDENT

RARA is a thriving organization and we have plenty of events for our members although we would always like to do more. However, the truth is these are organized by a very small number of people, mainly your board of directors and a few stalwart volunteers that we all rely on. Sometimes the pace is a real challenge for those who have volunteered for two or three roles and we need help. Can you help in any way? We are looking for people to take on roles or in other cases just to perform a task once, or as needed. None of these tasks by themselves are very time consuming and all bring rewards. Not only do you get the feeling of having contributed but they are a great way of meeting other members and getting to know them.

In most cases you don't need to be an expert ham or need specific skills, just a willingness to help and some organizational capability. Please take a look and think if you can help. If you can, or have questions please contact me at president@rochesterham.org. Thanks for reading.

Continuous Roles

These are ongoing positions that require some amount of time on a regular basis. We are open to splitting these tasks where appropriate if time commitment is an issue. Training and support will be provided for all roles. Note these roles are in an approximate order of priority although all would be a valuable contribution to the club.

Academy Coordinator

Survey members for topics of interest and select meeting topics. Secure presenters, location, dates and times (and equipment when required). Promote sessions via Rag, emails, etc. You do not need to be a subject matter expert.

Education Coordinator

Respond to emails sent to education, monthly report to board of directors, monitor progress of other education coordinators assisting where necessary.

Audio / Video Coordinator

Once we get back to meeting in-person we will need somebody to set up audio equipment and manage the sound. As we wish to continue holding meetings online as well, some video coordination will also be needed. This is a great opportunity if you are interested in the audio-visual world and would like to pick up some new skills or make use of skills that you already have.

Video Editor

Take the raw video from our web meetings and edit out the umms and ahs, coughs and other distractions. Perhaps add an opening graphic for 5~10 sec-

onds with metadata such as date, topic, presenter, and any other relevant items so these can be added to our website.

Website Sub-editor

Review the RARA website on a regular basis and identify updates needed. Either make these updates or supply the webmaster with revised text.

RAG Advertising

Someone to find advertisers - no one is doing this and the editor has therefore removed all paid ads from the RAG. This is a good potential source of income for the club, the RAG goes out to over 4,500 mainly local emails. Do you have a background in advertising (not really needed) or do you know a lot of Rochester area businesses?

Assistant Editor

Role would help the editor prepare the RAG for publication and potentially replace the editor if he/she is unavailable for any reason. Knowledge of Microsoft Publisher would be a requirement for this role.

RAG Calendar

Prepare and submit a monthly calendar of events including local club activities, contests (local and worldwide).

Membership Points Administrator

Respond to emails from event organizers requesting points to be assigned and update the membership database with awarded points. Respond to members with points requesting to use them for other than membership renewal, coordinating with the Membership Secretary and RARA Treasurer.

RAG Proofreaders, Raffle Coordinator and other roles

We currently have members filling these tasks but it is always good to have people to call on should the need arise.

One-Time Ad Hoc Tasks

These are tasks that only need to be done once or as the need arises.

Envelope Stuffing for sending out backlog of membership cards to new members.

July Picnic Setup and Cleanup

RADIO ELEGANCE

FOREST SHICK, WA2MZG

The [HobbyPCB IQ32, 5 Watt, HF, SDR Transceiver](#) is a truly elegant transceiver.



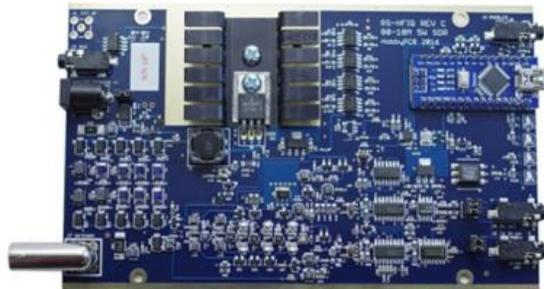
From the website:

The IQ32 is 5W output, 80-10M Amateur Radio transceiver with powerful 32 bit processing providing high-end features at an entry level price. The IQ32's 3.2" color LCD touch-screen display and dual control knobs provide an enjoyable operating experience in a robust package.

After I assembled the IQ32, my first thought was that this radio belonged in the living room! On the table next to my chair. The look, the interface, the size, the connections all highlight the care in the design of this elegant radio.

Unlike most transceivers, the front panel is NOT cluttered with buttons and knobs and connectors. The IQ 32 has a color touchscreen and two knobs on the front panel. That's it! Clean and elegant. The only thing missing was an antenna connection in my living room.

HMMM – what can I do with the old telephone jack on the wall.



I originally purchased the [RS-HFIQ](#) from HobbyPCB.

From the website:

The RS-HFIQ is an open-source HF transceiver project designed to translate I and Q baseband signals to RF in the 80 / 60 / 40 / 30 / 20 / 17 / 15 / 12 / 10M Amateur Radio bands. The I and Q signals

must be provided/processed by external signal processing which could be a PC running Software Defined Radio software or a stand-alone digital signal processor.

The HobbyPCB RS-HFIQ is based on the [FiveDashInc Softrock RXTX Ensemble](#) transceiver. The Softrock works on as many as three adjacent bands that the builder chooses at build time, makes 1-2 watts and is a kit with SMT parts.

The RS-HFIQ covers all nine bands 80-10M, has 5 watts output and is a completely assembled and tested transceiver. The RS-HFIQ offers some significant performance improvements including a TCXO, LNA, better amplitude and phase balance and isolated power, ground and controls to eliminate ground loops that plague the Softrock.

I operated the RS-HFIQ using my laptop running [HSDR](#). It seemed a bit ridiculous, to me, to need a computer to run a radio – too much equipment. To improve this situation, the STM-32 project was conceived.

The STM-32 SDR project was designed to be a stand-alone back end for IQ baseband transceivers like the Softrock or RS-HFIQ and provide all of the required processing to make a complete transceiver with knobs, 3.5" color touchscreen and a rich feature set for SSB, CW and PSK-31.

The IQ-32 is a completely stock RS-HFIQ and a special version of the STM32 SDR designed specifically for the RS-HFIQ to make a complete radio.

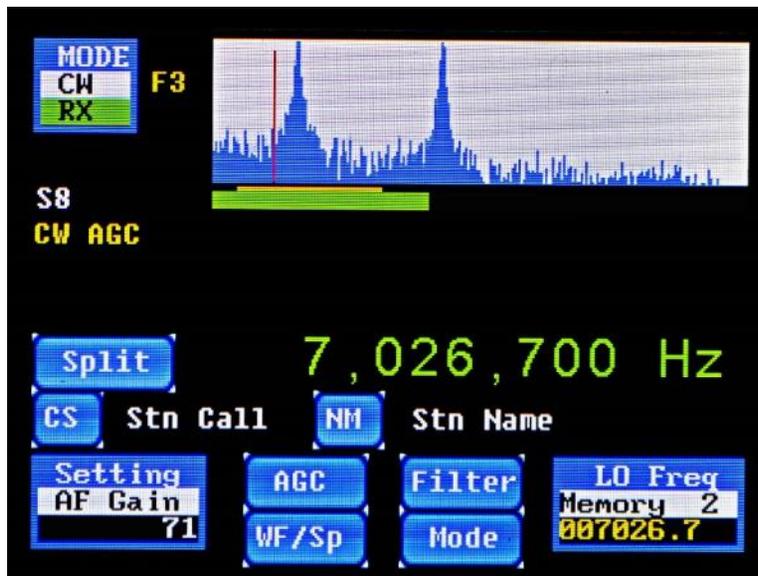
As mentioned, this began as an open-source project. As such, it has had many contributors to its progress and success. Here are a few of the contributors: Charly Hill (W5BAA), John Fisher (K5JHF), Kees Talen (K5BCQ), Milt Cram (W8NUE), Dave Miller (VE7PKE), Brian Fraser, Chris Scholefield (VE7XH), Jim Veatch (WA2EUJ).

Let us focus on the IQ32, specifications and operation.

The [IQ32 SDR Transceiver Operations Manual](#) is available at this link. This is a 72 page manual with complete details on operation and many pictures to enhance the explanations. I am a bit proud of this manual as I contributed to the latest edition.

A summary of the specifications for the IQ32 are:

- Frequency Range: 3-30MHz (performance guaranteed on 80 / 60 / 40 / 30 / 20 / 17 / 15 / 12 / 10M ham bands)
- Sensitivity: MDS < -128 dBm on 80M dropping to < -135 on 10M
- Noise Figure: < 8 dB
- TX Power: 5W typical, 4W minimum
- LO Feed-thru: < -50 dBc @ 5W output
- Spurious and Harmonics: < -50 dBc typical
- DC Power: 13.8VDC, 2 amp max
- Size: 172mm x 105mm X 75mm
- Weight: < 700 grams
- Display: 3.2" Color LCD Touchscreen
- Modes: USB, LSB, CW, PSK 31
- PSK Encoder / Decoder with on screen display
- Built-In Keyer
- DSP Processor: STM-32, 32 Bit
- Keyboard interface for PSK operation and radio configuration



This is a typical operating screen for CW mode.

The MODE button selects the operating mode and indicates RX or TX. The spectrum display shows relative signal amplitudes. F3, in yellow and the yellow bar under the display indicate filter bandwidth. S8, in White and the Green Bar are the S Meter, located below the display. AGC mode is also indicated (CW AGC).

There are buttons for enabling Split mode in CW, Call Sign and Name for PSK operation and the current operating frequency.

The Setting button not only indicates the AF Gain but tapping the button brings up many lesser used configuration functions.

The AGC button selects the different AGC modes. The Filter button steps through the appropriate, available filters for each mode. The WF/Sp button toggles the display between Waterfall and Spectrum mode. The Mode button steps through the major operating modes of this radio.

The LO Freq button is a bit more complex. The resolution of the frequency increment (1, 10, 100, etc. Hz) is selected here. Tapping this button brings you to the Memory window to select your predefined operating frequencies and modes.

The small knob on the front panel not only is the volume control but it is used to adjust many of the setup functions and changing filters.

The large knob is for frequency selection and frequency resolution.

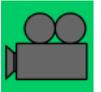
Both of these knobs take advantage of 3 means of parameter adjustment:

- Rotate
- Press
- Press and Rotate

More details on each of the buttons and modes are found in the manual.

Finally the keyboard interface is compatible with a PS2 keyboard and is used for PSK and CW transmission. It is also used in radio setup.

A video overview of the IQ32 is also provided to enhance the explanations for all of the modes and features and also demonstrate typical operation. Click this ICON to view the video.



If QRP operation is not your “thing” the HR50, 50W amp easily interfaces with the IQ32. The IQ32 communicates with the HR50 to indicate band and frequency changes. If you have the optional ATU installed, this is integrated into the operation of the radio and amplifier. NOTE that the amplifier may be disabled for QRP operation but the ATU still maintains its functionality.

Thank you to Edward Kelty, KD2VBX, for video editing support.

Background material for this article provided by VE7PKE, WA2EUJ and VE7XH.

PROFESSOR'S PIC(k)s

JEFF SONSTEIN, KD2RRB

[KPH Maritime Radio Station](#)

[O is for Ohm](#)

[Listening to the ISS](#)

[ISS Sighting Opportunities](#)

[Build a Ground Station](#)

[The Night Operator](#)

[Voyager 1 Detects Plasma “Hum”](#)

[UDXF Info Files](#)

[Monitoring the Russian Navy](#)

[Tiny Ground Stations](#)

[Rotary Encoder Breakout Test](#)

MY CURRENT POTA ANTENNA SETUP

KARL HEINZ KREMER, K5KHK

One of the questions I get asked frequently is about antennas for POTA (Parks on the Air) operations. The following is an overview of what I currently use for my POTA activations, and is therefore based on first-hand experience. As always, any antenna is a compromise, and it's up to you to decide how much money and work you want to put into an antenna and how efficient the antenna needs to be.

Currently my favorite antenna is a 31ft Jackite telescopic fiberglass pole that I use with a drive-on mount. The Jackite poles are designed to fly bird kites, and you can see examples on their web site, but they work very well for ham radio purposes as well. I run about 30ft of wire up the pole and use that with a 9:1 unun and a 1:1 common mode choke, followed by RG-8X to the antenna tuner. I connect three 33ft radials to the 9:1 unun that I spread out as evenly as possible. This setup requires an antenna tuner. I use the LDG Z-100Plus automatic antenna tuner, that makes it very easy to tune the antenna and does not require power when it's not actively tuning, which is a plus for operating from a battery. The unun and choke are also from LDG:

Tuner:

<http://ldgelectronics.com/index.php/products/zero-power/z-100-plus/>

Unun and choke:

<https://ldgelectronics.com/index.php/products/accessories/baluns/>

Here is information about the Jackite pole: <https://www.jackite.com/online-store/31-ft-Thick-Tip-Orange-Fiberglass-Windsock-Pole-p78587347>

This is the type of drive on mount that I use (eBay auctions are short lived, so you may just have to search for a similar item): <https://www.ebay.com/itm/380818607825> - the diameter does not match the pole, so I use a piece of PVC pipe as "adapter". The key here is to search for a "tire mount flag pole holder", and not an antenna mast support – these are way more expensive than flagpole holders. ☺

The disadvantage of this antenna is that it needs the ATU and a car to hold up the mast. Here is a picture of the collapsed mast, the drive on mount and the PVC pipe to make things fit:

The other antenna type that I use on the car is a hamstick - I have a few, but the two main ones are for 40m and 20m. I use them with a three magnet mag mount on the roof of my car with the 1:1 common mode choke from above and two 33ft radials (the same radials that I also use for the vertical above and the Wolf River Coil below). This is a very inefficient antenna, but when it's raining cats and dogs, it's a lot easier to set up than any



of the other antennas, and for a "RaDAR" activation (which stands for "Rapid Deployment Amateur Radio"), I just drive a short distance with the hamstick on the car, and all I need to do is attach the radials when at the new location.

This is the type of mag mount I use - it allows me to clip on my radials: <https://amzn.to/3gUGyUw>. It's sturdy enough that you can drive with the antenna on the mount (I don't do this for more than just a few miles - e.g. from one state forest to another state forest).

My #3 antenna that I use for POTA when I operate away from the car is the Wolf River Coil (WRC) with a 17ft whip, and three to six 33ft radials.

I've modified my radials so that I can clip them on the legs of the WRC, or on the binding post of the unun.



The biggest advantage of the WRC is that it is self-supporting and does not need a car or a tree to hold it up. Just like with the other two antennas I described, I use a 1:1 choke with this antenna as well.

When I go to activate more than just a few miles from my house, I travel with all these antennas (and usually also a second radio), just in case. Things tend to go wrong at the most inconvenient time. ☺ I also have a few other wire antennas in my "activation crate", and another (shorter) fiberglass pole in my car. When it comes to activations, belt and suspenders, and a long piece of paracord just in case is the way to go.

TUNE UP A STONE

FOREST SHICK, WA2MZG

I really like the antenna tuner in my KX3.
If someone asks – I'll say it can Tune Up a Stone!

Recently, a friend was testing a new antenna, a 35 foot end fed using his KX3 with the internal antenna tuner to measure the SWR. Here were the results:

80M	7.4 : 1
40M	1.0 : 1
30M	2.6 : 1
20M	1.0 : 1
17M	2.6 : 1
15M	1.5 : 1
12M	1.5 : 1
10M	1.2 : 1

He was not overjoyed with the results, but he did have some "sweet spots".

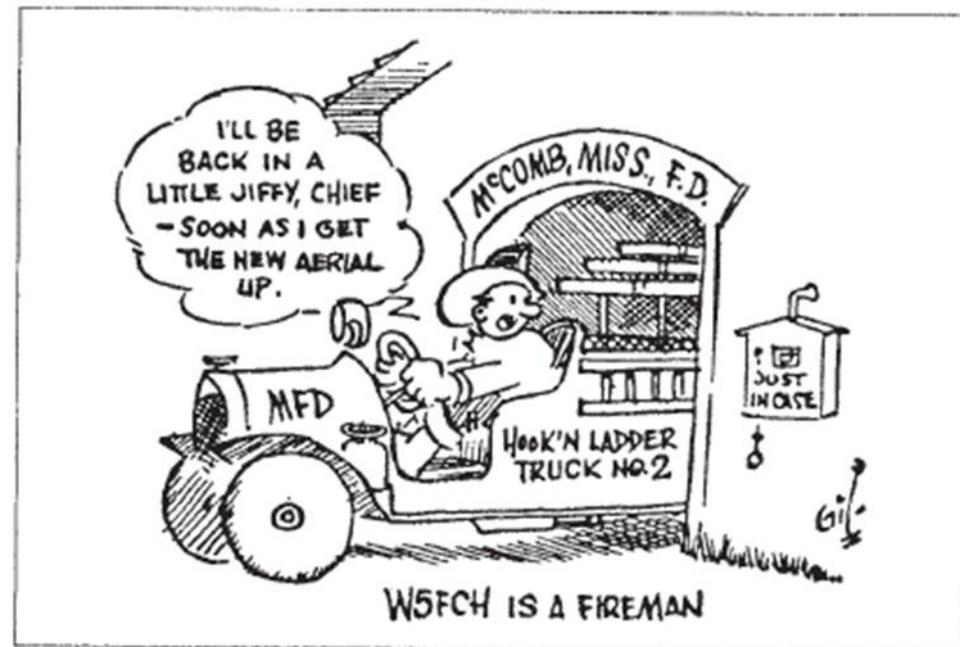
After a head slapping moment, he realized he was tuning into 3 foot of coax that was shorted at the far end (3 ft away), instead of the antenna he was hoping to test.

The real results, with the KX3 connected to the end fed antenna through 50 feet of coax, were:

80M	1.7 : 1
40M	1.0 : 1
30M	1.0 : 1
20M	1.0 : 1
17M	1.0 : 1
15M	1.0 : 1
12M	1.0 : 1
10M	1.0 : 1

Lesson learned:

Is the antenna connected?
Or
Are you
Tunning Up A Stone?



COURTESY JUNE 1938 QST

RAG ARTICLE LAYOUT HINTS

- Orientation - Landscape
- Main Text Box H - 7.7, W - 10.4
- 2 columns, 0.3 spacing between columns
- Font: Arial
- Title: 20 pt, Bold, Small Caps
- Author: 10 pt, Bold, Small Caps
- Main Text: 10 pt
- Single space after periods
- Text Alignment: Justified
- Title & Author Alignment: Centered
- No special formatting
- Try to limit pictures to the width of a column
- Picture Format: jpg or png
- Document format: Microsoft Word compatible or text. No special embedded formatting.

VE TEAM

LICENSE TEST RESULTS

The next testing session
will be in September

Kevin Passmore	KD2TXQ	G	Jason Mollo	KD2UDR	G
Ryan Close	KB3GGQ	E	Seward Heckman	KD2VRU	E
Michael Panzica	W0TLK	G	Robert Hannon	KD2VGM	E
Mark Vernacotola	W2MJV	E	Keith Bell	KD2WIE	T
Bradley Deuel	KD2WIF	T	Jonathan Smith	KD2WIG	G
Ava Vernacotola	KD2WIH	T	Ella Vernacotola	KD2WII	T

RADIO ELMERS

	Applicants	Technician	General	Extra
2019	129	42	37	22
2020	48	33	8	5
2021	52	33	28	12

Name	Call	Area	Email
Tim Brown	WB2PAY	Ogden	tjbrown@rochester.rr.com
Dave Carlson	N2OA	Batavia	kdcarlso@gmail.com
Lawrence Hill	N2AJX	Henrietta	lawrence.hill@rit.edu
Rich Hoffarth	K2AXP		rhoffarth2000@yahoo.com
Bill Kasperkoski	WB2SXY	Pittsford	wb2sxy@gmail.com
Don Kiser	AC2EV	N Greece	dkiser100@gmail.com
Karl Heinz Kremer	K5KHK	Chili	k5khk@khk.net
Tim Magee	WB2KAO	Greece	585-704-5747
Mike Moore	KC2NM		mikemoore@ieee.org
Peter Schuch	WB2UAQ	Perinton	pschuch@rochester.rr.com
Forest Shick	WA2MZG	Webster	fshick3@gmail.com
Dave Timmons	W2DST	N Greece	dstimmons@gmail.com
Steve Verzulli	KA1CNF		verzulli@yahoo.com
Dan Waterstraat	W2DEW	Henrietta	higreen@rochester.rr.com

CW ELMERS

Name	Call	Area	Email
Ned Asam	W2NED	Pittsford	w2ned@frontiernet.net
Tim Brown	WB2PAY	Ogden	tjbrown@rochester.rr.com
Pete Fournia	W2SKY	Penfield	pfournia@gmail.com
Bill Hopkins	AA2YV	Brighton	whopkin4@naz.edu
Bob Karz	K2OID	Webster	rkarz@rochester.rr.com
Joe Rowe	AG2Y	Webster	ag2y@rochester.rr.com
Harry Williams	KF2TV	Webster	harryw7872@gmail.com

RARA CALENDAR

TIM BARRETT, K9VB, MEMBERSHIP SECRETARY

June 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 RTTYOPS Weeksprint Phone Weekly Test Fray	2 RaRa Monthly Mtg ONLINE 7pm ROC City Net 3.810 MHz, 7 pm VHF/UHF FT8 Activity Contest CW Ops Mini-CWT Test Walk for the Bacon QRP Contest	3 ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.200 USB RTTYOPS Weeksprint NRAU 10M Activity Contest Walk for the Bacon QRP Contest NCCC Sprints SKCC Sprint (Europe)	4 K1USN Slow Speed Test PODXS 070 Weekend Contest HA3NS Memorial Contest	5 ROC City Net 28.405 MHz, 7:30p PODXS 070 Weekend Contest 10-10 PSK Contest PVRC Reunion Kentucky QSO Party RSGB National Field Day Full-LRB HF Contest Cookie Crumble QRP Contest KANHAM Contest (Japan)
6 ODXS 070 Weekend Contest PVRC Reunion Kentucky QSO Party RSGB National Field Day Full-LRB HF Contest K1USN Slow Speed Test	7 AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB RSGB 80M Club Challenge WW Sideband Activity Contest ARS Spartan Sprint	8 RTTYOPS Weeksprint Phone Weekly Test Fray	9 ROC City Net 3.810 MHz, 7 pm VHF/UHF FT8 Activity Contest CW Ops Mini-CWT Test	10 ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.200 USB RTTYOPS Weeksprint NCCC Sprints	11 K1USN Slow Speed Test VK Shires Contest	12 ROC City Net 28.405 MHz, 7:30p SMIRK Contest Asia Pacific Sprint SSB SKCC Weekend Sprintathon DRCG WW RTTY Contest Portugal Day Contest GACW WWSA CW Contest REF DDFM 6m Contest AGCW VHF/UHF Contest ARRL VHF Contest
13 SMIRK Contest SKCC Weekend Sprintathon DRCG WW RTTY Contest Portugal Day Contest GACW WWSA CW Contest REF DDFM 6m Contest K1USN Slow Speed Test 4 States QRP Sprint ARRL VHF Contest	14 AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB WW Sideband Activity Contest	15 RTTYOPS Weeksprint Phone Weekly Test Fray	16 ROC City Net 3.810 MHz, 7 pm CW Ops Mini-CWT Test SARL Youth Sprint RSGB 80M Club Challenge, CW	17 ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.200 USB RTTYOPS Weeksprint NCCC Sprints	18 K1USN Slow Speed Test	19 ROC City Net 28.405 MHz, 7:30p Battle of Carabobo Contest All Asia DX Contest, CW Ukrainian DX Contest (RTTY) IARU Region 1 50MHz Contest Stew Perry Top Band Challenge WV QSO Party Feld Hell Sprint ARRL Kids Day
20 K1USN Slow Speed Test Battle of Carabobo Contest All Asia DX Contest, CW Ukrainian DX Contest (RTTY) IARU Region 1 50MHz Contest Stew Perry Top Band Challenge WAB 50MHz Phone WV QSO Party Feld Hell Sprint ARRL Kids Day	21 AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB WW Sideband Activity Contest	22 RTTYOPS Weeksprint Phone Weekly Test Fray	23 ROC City Net 3.810 MHz, 7 pm CW Ops Mini-CWT Test	24 ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.200 USB RTTYOPS Weeksprint NCCC Sprints RSGB 80M Club Challenge, SSB	25 K1USN Slow Speed Test	26 ROC City Net 28.405 MHz, 7:30p ARRL Field Day UFT QRP Contest King of Spain Contest, SSB Ukrainian DX Contest (Digi)
27 K1USN Slow Speed Test ARRL Field Day UFT QRP Contest King of Spain Contest, SSB Ukrainian DX Contest (Digi)	28 AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB WW Sideband Activity Contest QCX Challenge RSGB RT4 Contest Series	29 RTTYOPS Weeksprint Phone Weekly Test Fray	30 ROC City Net 3.810 MHz, 7 pm CW Ops Mini-CWT Test			

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.

Until further notice, our meetings are via Zoom. Please check our website for any schedule changes. Prospective members can request an invitation by email to: secretary@monroecountymcomm.org.

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

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

Our June (15th) program will be dedicated to FD even though a "club" effort as in years past can not be held.



We'll be polling those in attendance regarding their own plans in hopes of maximizing participation and scores.

Some may be considering smaller "field" efforts, setting up in your own backyards or just participating with a home station "D" operation.

All are welcomed, the "zoom" session will begin at 7:30pm Tuesday 15 June – login information can be found on our website www.rdxa.com.

This will be our last regularly scheduled meeting until 21 September, 2021.

ROCHESTER RADIO REPEATER ASSOCIATION

The Rochester Radio Repeater Association, RRRRA will not be having its regular meeting on Jun 18th due to the Pittsford Town Hall's meeting room being closed. However, the club is having Zoom meetings on our regularly scheduled meeting nights on the 3rd Friday of each month starting at 7:30PM lasting 40 minutes. All paying and non-paying members should receive an invite in their email. All you have to do is hit the link in your email, or go to zoom in your browser and type in the meeting ID number and pass code and you're in. You may have to install the Zoom client when prompted. Or go to <https://zoom.us/download>. Remember to activate your video & audio from the bottom of the screen so everyone can see and hear you. If you use the android client for your cell phone you will only be able to see a max of 4 pictures on the screen at a time. If you use the windows client you can have as many as you want. We are currently attempting to modify our club bylaws to resume all our regular meetings on Zoom until Covid-19 passes.

Stay tuned to our web site, www.k2rra.org for current information on whether our meeting place will be available. The elected RRRRA officers for 2020 - 2021 are, Bob Shewell, N2HJD, President, Bob ODell, N2BZX, Vice President, ED Wilkonski, KC2WM Secretary, and Bob Smith, NS2B-Treasurer / Membership Chairman. RRRRA 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

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>

ROCHESTER VHF GROUP

You are invited to join us on-line & on-the-air! We're here to help you to use the license that you worked so hard to get.



Check out what we do by visiting our website at <http://RVHFG.org> to start.

Join our e-mail group by sending a message to RVHFG+subscribe@groups.io.

Join our weekly on-the-air nets on SSB:
2 meter band - Monday 9 PM 144.260 USB
6 meter band - Thursday 9 PM 50.200 USB

No VHF SSB radio (yet) to join the nets?
Log-in to Echolink ka2ene-L #23426

We can help to answer the question, "What radio should I buy?" Here's a list of HF+++ radios, those with the HF bands and at least three VHF bands, giving you access to all sorts of VHF fun. Research each one to see which serves you best. Ask questions on our email list. We're here to help!

Yaesu FT-100D	Yaesu FT-817	Yaesu FT-818
Yaesu FT-847	Yaesu FT-857	Yaesu FT-897
Icom IC-706MKIIG	Icom IC-7000	Icom IC-7100
Icom IC-9100	Kenwood TS-2000	

Some are older models and some are newer models, but all provide access to the 6 meter, 2 meter, and 70 centimeter bands using both traditional FM and the exciting narrow-band SSB mode that supports unexpectedly long-distance (100's of km's routinely and 1,000's of km occasionally) VHF communication. These are good all-around radios no matter what club you end up affiliating with later. We hope its 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. Our Chemung County ARES (CCARES) organization meets the first Tuesday of the month except February on Harris Hill, next to the National Soaring Museum. Both organizations serve amateurs in Chemung, Steuben and Schuyler counties in New York and Bradford and Tioga counties in Pennsylvania. All are welcome to attend our meetings.

NOTE: Both CCARES and ARAST monthly meetings are being held online until further notice. Check out the Upcoming Events at our website, www.arast.info, for details.

Our 2021 Hamfest is set to take place at the Chemung County Fairgrounds in Horseheads, New York, on Saturday, September 25, 2021, subject to the then current New York State Department of Health guidelines.

ARAST will participate in the ARRL Field Day on June 26 and 27, 2021 from our club location atop Harris Hill, adjacent to the National Soaring Museum (www.soaringmuseum.org).

Our premier public service event, the Wineglass Marathon, is scheduled for Sunday, October 3, 2021. Because the Wineglass committee is planning on a hybrid approach, subject to NYS Department of Health guidelines, we are not yet sure how great the need for communicators will be. Watch for updates in future editions of the Rag!

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 574415 with the call sign KD2QND-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.

We also invite you to check out our new 6 meter net on Wednesday evenings at 9 p.m. local time on 50.200 MHz USB. The net usually lasts approximately one hour. Operators are encouraged to check in and participate in the round table discussions or simply stop by from time to time. Topics are wide-reaching and are not confined to 6 meters--although discussions tend to center around 6-meter equipment, antennas, propagation, latest band openings and grid squares worked, as well as AM, FM and FT-8 use of the 6-meter band. We would welcome more participation from the western part of our area.

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/>

KEUKA LAKE AMATEUR RADIO ASSOCIATION, KLARA

The Keuka Lake Amateur Radio Association will hold their first in person meeting on June 16, 2021 at the Steuben County Veterans Memorial Building in Bath next door to the Civil Defense Training Center at 7pm.

At this time masks are still needed until we hear differently.

June 26 we will be having our Field Days at location of your choice but sending in logs under KLARA. Some of us are camping at Kanakadea Park in Hornell, NY and will be setting up outside so others can see and learn about amateur radio. Feel free to pop in and visit us. I think there will be at least 7 stations set up there in various locations at the park. Its open to the public with no fee to visit.

Hope everyone has a great Field Day weekend and hope to hear your CQ and make lots of contacts.

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> or contact club Secretary Ron Craig, N5BNO for more information.

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. |

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 9th will be inside at the Safety Training Facility. We will start the meeting at 7:30 PM this month. Masks and social distancing will be required if you have not been vaccinated for COVID 19. There will NOT be License Exam Testing. Check the SIARC website for updates.

SIARC is also holding a Health and Welfare NET Monday through Friday 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.

GENESEE VALLEY AMATEUR RADIO ASSOCIATION

Email n3dsp@lafireline.net for details.

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>

ASTRONOMY SECTION ROCHESTER ACADEMY OF SCIENCE

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

HAM RADIO EQUIPMENT FOR SALE

Submit bids by June 1st to

tjbrown@rochesterham.org

Accepted offers may be picked up on Saturday June 5th between 11am and 1pm at the home of W2RMB(SK), 44 Lambert St in Greece.

LDG	AT-100PRO II	Auto Antenna Tuner	\$140
MFJ	MFJ-986	Differential T 3kw Tuner	\$200
MFJ	MFJ-901B	QRP Tuner	\$75
DIAMOND	V2000A	6m/2m/70cm Base Vertical	
		Missing 1 Radial	\$80
DX Engineering	DXE-RADP-3	Radial Base Plate	
		Never used	\$40
G5RV Full Size		Used Ladder Line cut at balun	\$60
GAP	DX-VIII	Used and Disassembled + parts from second antenna.	\$70
MAXCOM	OCF-3K80	OCFD MULTIBAND	\$60
MFJ	MFJ-1700C	6 Position Coax Switch	\$75
MFJ	MFJ-1704	4 Position Coax Switch	\$60
MFJ	MFJ-1905	Tripod Foot Braces 3	\$20
MY ANTENNA	EFHW4010	Used with Coax	\$110
RADIO SPORT	RS20S	Headset	\$75
BEGALI	EXPEDITION 589	KEYER PADDLE	\$200
PALSTAR	CW50A	CW Keyer	\$90
ICOM	ID-5100	VHF-UHF Digital Transceiver with removable faceplate. Remote cables included	\$350
ICOM	ID-51A	VHF-UHF TRANSCEIVER with Spare Battery & RT Pgm Cable	\$200
KENWOOD	TH-D74	HT TRANSCEIVER	\$350
YAESU	FT2DR/DE	C4FM Digital V/D Mode, Voice FR Mode, Data FR Mode and Conventional FM with RT PGM CD + CABLE, Nifty Guide, 1/4 Wave whip antenna	\$350
YAESU	MH-34	Handheld Microphone	\$25

RARA OFFICERS, DIRECTORS AND COORDINATORS

OFFICERS

President: Tim Barrett, K9VB	(646) 496-5015	president@rochesterham.org	Treasurer: Mike Moore, KC2NM	(585) 721-0011	treasurer@rochesterham.org
Vice-President: Brian O'Connor, KA2CGB	(585) 721-2346	vicepresident@rochesterham.org	Secretary: Karl Heinz Kremer, K5KHK	(585) 210-0840	secretary@rochesterham.org

DIRECTORS

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Tim Guyot, KB1POP	(585) 406-3163	timguyot@gmail.com			

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Club Historian	Ed Gable, K2MP	egable@rochester.rr.com	Public Service	Mike Moore, KC2NM	publicservice@rochesterham.org
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			Webmaster	Scott Theis, W2LW	webmaster@rochesterham.org

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Digital Communications Association of Perinton (DCAP)

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Drumlins Amateur Radio Club Ltd. (DARC)

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Squaw Island Amateur Radio Club (SIARC)

Steve Benton, WB2VMR: sbenton2@rochester.rr.com

XRX Amateur Radio Club

Brian Donovan, K2AS: k2as@outlook.com

JULY RAG DEADLINE JUNE 15, 2021

**RARA MEETS AT 7PM ON THE FIRST
WEDNESDAY OF EACH MONTH.
JOIN US ON-LINE AT:**

<https://attendee.gotowebinar.com/register/2464247865469311499>

CONTACT WEBMASTER@ROCHESTERHAM.ORG FOR SUPPORT

Rochester Area Repeater Listing

THE RARA RAG

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