



# THE RARA RAG

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

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## INSIDE THIS ISSUE

MONTHLY PROGRAM	1
BOARDZ BUZZ	2
CALENDAR OF EVENTS	2
EDUCATION	3
GIL	4
CHANGES TO EDUCATION	5
PUBLIC SERVICE REPORT	6
SPRING 2021 FOX HUNT	6
2M SIMPLEX CHALLENGE	6
PROFESSOR'S PIC(K)S	6
WHEN DO CW OPS SLEEP	7
3D BASE CAMP	8
GROWTH OF VOIP	10
NEW RAG FEATURES	11
SHOW AND TELL	11
RAGS OF THE PAST	12
VE TEAM	14
ELMERS	14
RARA CALENDAR	15
NEWS FROM AREA CLUBS	16
AMATEUR'S CODE	16
ESTATE SALE	20
RARA OFFICERS	21
AREA CLUB CONTACTS	22

## THE ROLE OF THE SUN IN HF PROPAGATION ONLINE MEETING AND PRESENTATION

BRIAN O'CONNOR, KA2CGB, RARA VICE PRESIDENT

This month's presentation is **The Role of the Sun in HF Propagation**, presented by Tim Barrett, K9VB.

It is well known that the Sun's activity, measured in visible sunspots, affects radio propagation, predominantly at HF. Energetic photons at ultraviolet and x-ray wavelengths are absorbed by the ionosphere, while plumes of plasma from coronal mass ejections disturb the Earth's magnetic field. Why is this, what are the processes and how much of the mechanism is understood? The presentation will try to answer these questions.

Originally from London, England, Tim became a ham in 1987, first as M5AHV, later M0TIM, and now K9VB. He has a degree in physics and the history of science.

Tim's career focused on TV Audience measurement. He was involved setting up operations in around 20 countries. His XYL was originally from the Rochester area, and their family finally settled here in 2004.

His primary amateur radio interests are on HF, working DX when he can! Tim joined RARA soon after arriving in the US. He has been our Membership Secretary since 2014 and was elected President in September 2020.

To register for the meeting, visit [https://rochesterham.org/club\\_meetings.htm](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

TIM BARRETT, K9VB, RARA PRESIDENT

## Club Administrative Positions

You will read further down in the RAG that we have a new vacancy in our team of administrative positions, as Tim Brown will be retiring as our Education Coordinator at the end of this month. These roles are important for the success of the club and the Education position is absolutely key. Tim has done an excellent job and now that task needs to move on to another person or persons. Thanks, Tim for a great job well done!

Finding people to fill these roles is a responsibility of the President and Board but that is not to say that the person filling the role needs to be a board member. In fact, one of the challenges board members face is finding time to meet their board member commitments as well as filling any admin roles they hold. For that reason, I am very much hoping that we can fill the current vacancy from the membership.

Holding an admin role within the club is a great way of becoming more involved, getting to know other like-minded individuals and of course a way of giving back to the club. I'm considering breaking up the Education role into several positions to make the load on each individual less. These will include License Class Admin, Elmers Corner Admin and RARA Academy Admin. We are not expecting volunteers to know all the answers and will work with people to make their role a success. The positions need not be too time consuming either. The Elmers Corner role for instance is essential to the smooth running of the club but actually not much is required beyond scheduling the Elmers, the meeting times, publicizing sessions and perhaps picking a topic from survey responses. Do you think you can help in one of these roles? If you can, or if you would like to know more, please email me at [president@rochesterham.org](mailto:president@rochesterham.org). I'm sure that you will find the position interesting and rewarding!

## Old Timers Night Recap

April has traditionally been RARA's Old Timers Night, and thanks to Brian O'Connor KA2CGB for co-ordinating the event this year. We were pleased to have the following past presidents join last month's meeting:

Cliff Milner	K2SKO	1964-1965	
Ed Gable	K2MP	1977-1978	also RARA Historian, and Historian at the AWA.
Allen Komenski	AC2K	1979-1980	
Bob Hobday	N2EVG	1989-1990	also current Director of the AWA
Lloyd Caves	N2PU	1992-1993	
Chris Reich	WB2DYJ	1995-1996	
Pete Fournia	W2SKY	2001-2002	
Duane Fregoe	K2SI	2009-2010	
Forest Shick	WA2MZG	2016-2018	also current editor of the RARA Rag
Tim Guyot	KB1POP	2018-2020	also current RARA director

We also want to also thank these old timers who checked into the meeting:

Rob Schober	K2CRR	licensed 1953
Dave Hintz	WB2ZIA	licensed 1961
Duncan Brown	K2OEQ	licensed 1962

I hope to see as many of you as possible at our next general meeting!

## CALENDAR OF EVENTS

**WEDNESDAY MAY 5, 2021** - RARA General Meeting  
7:00 PM - ON LINE

<https://attendee.gotowebinar.com/register/3993379367378667277>

**THURSDAY MAY 6 2021** - RARA Board of Directors Meeting  
6:30PM ON LINE

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

**SATURDAY MAY 15, 2021** - VE Testing



## EDUCATION

TIM BROWN, WB2PAY, EDUCATION COORDINATOR

### RARA LICENSE COURSES

THERE ARE NO SPRING OR SUMMER LICENSE CLASSES

- For those studying on their own, License manuals are available for \$25.
- Study aids and reference materials for Technician and General are available upon request at:  
[education@rochesterham.org](mailto:education@rochesterham.org)

### ELMERS CORNER

During this Covid Isolation period, with no Elmers at meetings, no hands on Academy workshops, no visits to ham shacks, etc, resources for asking questions and gaining experience are limited.

RARA has established a ZOOM ELMERS CORNER on the first Saturday of the month

The next Elmers Corner will be on May 1st at 10am. Questions and discussion topics may be submitted ahead of time which will help Elmers have appropriate answers to inquiries.

RARA Elmers and Instructors have a wealth of experience to share. Tap into this SUPER RESOURCE.

Register for the ELMERS CORNER at [education@rochesterham.org](mailto:education@rochesterham.org)

## RARA ACADEMY WORKSHOPS

Saturday May 22nd 11am to 4pm HANDS ON OPERATIONS

*License Classes prepare us for passing the FCC exam.*

*"I have my license, what do I do now?"*

*Newly licensed and upgraded Hams want hands on experiences.*

RARA has reserved an open shelter in a local park for a skills and operating event.

To comply with Covid guidelines for the park, masks and appropriate distancing will be required. Masks will be worn except if transmitting using a microphone. Hands will be sanitized before handling any equipment.

ACTIVITIES:

- Antenna launch techniques: Fishing pole, Air Cannon and Arm Strong toss
- Antenna set up: Dipoles, End Fed, Verticals
- Antenna Analyzers for evaluating and tuning antennas
- Antenna build a 20/15m dipole-- Two Dipole Kits will be Door Prizes
- HF SSB Stations
- POTA and QRP Stations
- Soldering techniques and practice
- Test Equipment Demonstrations

This is a great opportunity for Newly Licensed Hams and those who do not operate regularly. You will get on the air with the guidance of experienced operators.

Due to Covid restrictions, participation is limited.

Register at [education@rochesterham.org](mailto:education@rochesterham.org)

## MORSE CODE TRAINING

The RARA XRZ CW 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](mailto: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](mailto:education@rochesterham.org)

### MORSE PRACTICE ON AIR

**W1AW** - <http://www.arrl.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](mailto:pfournia@gmail.com) or  
Tim at [education@rochesterham.org](mailto:education@rochesterham.org)

## SCHOOL IS OUT FOR THE SEMESTER

For the past 4 years as Education Coordinator, I strived to provide quality educational programs through License Classes, Elmers Corners and Academy technical sessions. I tried to pass along my love of this great hobby.

It is now the time of my life to focus more closely on health and family activities. I will be passing the educational torch forward. I will also relinquish my seat on the RARA Board of Directors on May 31st.

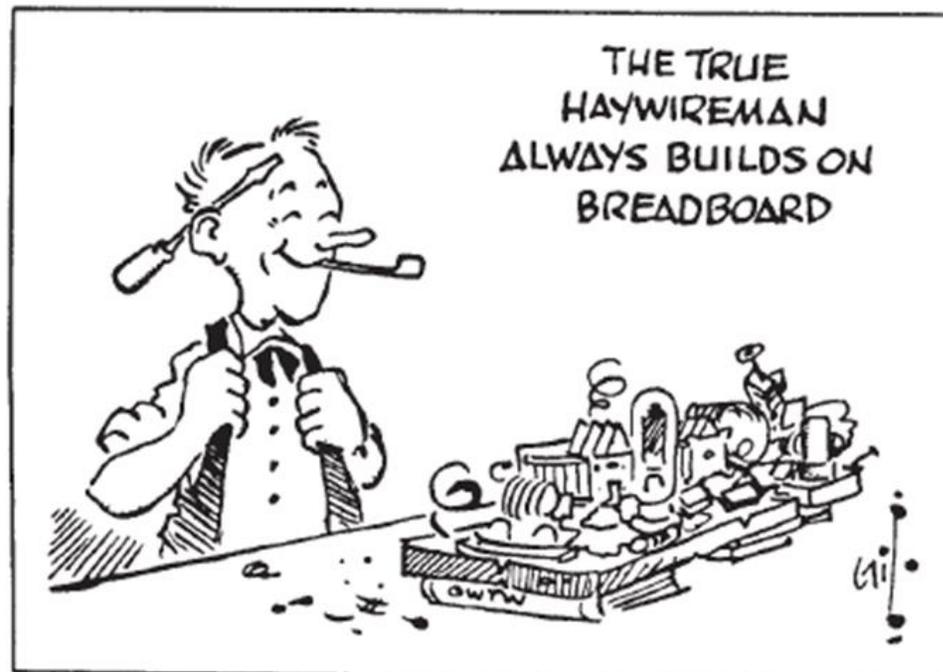
I extend a heartfelt THANK YOU, to all the Elmers, Instructors and RARA members who helped me promote our quality educational program for the Ham community.

I urge RARA members to share your knowledge, experiences, and enthusiasm with the Ham community. We all learn from each other.

PASS FORWARD THE TALENTS YOU HAVE BEEN BLESSED WITH.

73

Tim Brown, WB2PAY



Courtest May 1947 QST

# CHANGES TO EDUCATION COORDINATION

As you will have read above, our Education Coordinator, Tim Brown, WB2PAY is resigning from his role as Education Coordinator and as a board director from May 31st. Firstly, I would like to sincerely thank Tim for his valuable input and his extraordinary efforts to support the club. During his time as Education Coordinator Tim re-introduced monthly RARA Academy Sessions on Saturday mornings which have been very successful. He also started regular online Elmer sessions for the benefit of new amateurs. As if that was not enough, amongst many other activities Tim has organized license classes, presented at an Expo at the Greece Library and given talks to groups such as the Scouts and Shriners, promoting ham radio.

I have also much appreciated Tim's thoughtful inputs to our monthly board meetings. I would like to extend my heartfelt thanks on behalf of myself, the RARA board and the membership to Tim and also to his wife Cathy, KC2UAD for their unstinting help to the club. I know I will be calling on Tim for advice as we continue.

Tim is leaving the education role in good shape. We have completed license classes until the fall, we do still need to ensure that Elmer classes and Academy sessions continue. My plan is that with the help of the board and from the general membership we can make those things happen through to the end of the 2020/21 season in September.

***We are therefore looking for a person or persons to take on the role of Education Coordinator from October 1st.*** If you feel you can contribute to this important and satisfying role please email me at [president@rochesterham.org](mailto:president@rochesterham.org).

**TIM BARRETT, K9VB RARA PRESIDENT**

# PUBLIC SERVICE REPORT

**MIKE MOORE, KC2NM, PUBLIC SERVICE COORDINATOR**

There is some information available for the [Bike MS: ROC the Great Lakes experience!](#) This event will begin at 7:00 AM and will feature a 25 and 60 mile route. The start and finish line will be at the [Lakeside Beach State Park](#). I continue to seek contact information for the leadership of this event.

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.

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://www.rochesterham.org/public\\_service.htm](https://www.rochesterham.org/public_service.htm) .

Please mark your calendars for our upcoming RARA Public Service Events

Bike MS: ROC the Great Lakes	Waterport in Orleans County	Saturday	Aug. 21, 2021
Fairport Lift Bridge Regatta	Erie Canal – Fairport, NY	TBD	TBD
JOTA (Verify CTC Date)	Camp Babcock Hovey	Saturday	Oct. 16, 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

# SPRING 2021 FOX HUNT

The XRX Amateur Radio Club will be having a Fox Hunt on Saturday May 8, 2021 at Ellison Park in Penfield. There will be multiple foxes, so beginners as well as experienced hunters should enjoy the challenge. All foxes will be transmitting on 2 meters and will be within walking distance of the start, so there will be no driving involved.

The hunt will start from the main Blossom Road parking lot near the Creekside Lodge. Registration will be at 9:00 AM with the hunt starting at 9:30. The hunt is free and opened to everyone. You can hunt alone or with a team.

Frequencies and hunt rules will be posted on our website, <http://xarc.us> no later than 1 week before the hunt. Please let us know if you have any questions. We hope you can join us.

## THE KLARA 2 METER SIMPLEX CHALLENGE!

Please save the date!  
May 15th, 2021 from 12:00 PM to 4:00 PM, local time.

Contest files (rules, log sheets, tips and tricks, etc.) can be downloaded from: <https://klara.us/downloads-and-files>

This year we've added a 2 meter single side band portion to the contest. How far will a 2 meter USB signal go? We're going to find out on the 15th.

Everyone who submits a log will receive a full color certificate of participation.

Come work with us and let's see what we can accomplish with 2 meter simplex. It's also a lot of fun!



# PROFESSOR'S PIC(K)S

JEFF SONSTEIN, KD2RRB

- [Raspberry Pi at Home and Work](#)
- [Merging Android and Pi](#)
- [Radials for Quarter-Wave Verticals](#)
- [Building a House](#)
- [SDR Server](#)
- [Understanding Propagation](#)

**Jeff Sonstein** @jeffsonstein · 19m

"The following ROMs are known:  
•SSR1, SSR2: The default ROMs included as part of the digitalker chipset.  
•SSR3, SSR4: I'm not sure if these exist or not. People have assumed based on the existence of SSR5 and SSR6 that SSR3/SSR4 must have existed, but"  
<ROFL/>

**Microchip Makes** @MicrochipMakes · 22m

Scott Baker designed an ATmega328P-based board for the Digitalker speech synthesizer chipset: [bit.ly/3ja6sTb](https://bit.ly/3ja6sTb)

1



# WHEN DO CW OPERATORS SLEEP?

KARL HEINZ KREMER – K5KHK

No, this is not a joke like “how many amateur radio operators does it take to change a light bulb?”. While following links in blog posts, I recently came across a very interesting page that analyzes results from the Reverse Beacon Network (or RBN for short) – and if you want to know more about the RBN, the August 2020 issue of the RARA Rag has an article about it:

<https://rochesterham.org/documents/rararags/2020-08.pdf#page=11>)

and presents those results in a very interesting way.

Here is the page with results for my call sign:

<https://rbn.telegraphy.de/activity/K5KHK>

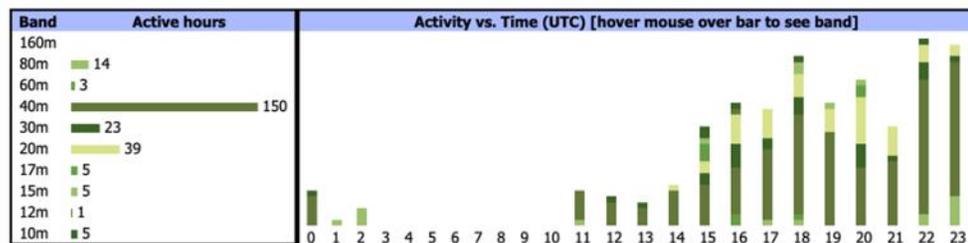
When you click on this link, you get a page that looks like this:

## RBN activity of K5KHK

The heatmap shows the activity as reported by the RBN (CW/PSK/RTTY, no FT8) of the last 12 months. You can scroll back to January 2015.



Hours (in 365 days) with at least one RBN spot: 224 (0.6h / day). EU: 48, NA: 219, AS: 0, SA: 10, AF: 27, OC: 0. Rank: 5810



Generate this report for any call:  Go! - [FAQ](#) - [Data Removal](#) - etc. - You can generate joint reports for two calls, e.g. [DJ1YFK+SO5CW](#)

Daily activity is measured by the number of active hour slots (24) times band slots (10, 160m - 10m incl. WARC and 60m) and the number of continents in which a skimmer spotted the station in the respective hour, for a maximum daily score of  $24 * (10 + 6) = 384$ . When filtering by band, the continent information is omitted, because it's only saved once per slot, not per band.

Click a single day on the heatmap to see its details.

You can embed the statistics on your own website or profile on [HamQTH/QRZ.com](#) by copying the following HTML snippet: (example: [DJ1YFK](#) on HamQTH.com - [Click here for details.](#))

```
<a href="https://rbn.telegraphy.de/activity/K5KHK"></a>
```

Thanks to PY1NB and the team of the [Reverse Beacon Network](#) for the aggregated RBN data.

[FOC RBN](#) - [CW Club RBN Spotter](#) - [RBN Activity Rank](#) - [RBN Activity Statistics](#)

Last modified: 2020-08-14 - [Fabian Kurz, DJ1YFK <fabian@kurz.net>](#) - [Switch to http](#) - [Impressum](#) / [Datenschutz](#) / [Privacy Policy](#)

At the top is a “heatmap”, which shows how often your call was spotted by the RBN. It looks at CW, PSK and RTTY CQ calls (sorry, no FT8 - that would use up too many resources). The darker a square is, more often your call was recognized.

On the second row of charts, we start with the “Active hours” chart on the left, which lists the number of hours you were active on different bands. This means that if your call was recognized 10 times during a one-hour period, it only counts for one hour in this chart. This is a good way to find out which bands you were active on, and for how much.

The last chart is the one that the title of this article refers to: It lists your activity over the 24 hours of the day. If you look at my chart, it clearly shows that I don't operate (at least not in CW, PSK or RTTY) between 2:00 and 10:00 UTC.

The data only takes your CQ calls into account, so if you are rag chewing all day long, but only answer other CQ calls, you may not find much useful information on this page.

You can create your own chart (or a chart for any call sign) by either filling in the call sign field on that page, or by adjusting the URL.

The “telegraphy.de” site has other interesting information, for example the “CW Club RBN Spotter” (<https://rbn.telegraphy.de>) where you can find members of different CW clubs calling CQ. This is useful if you are trying to get CWops, FISTS, SKCC or NAQCC contacts (or a number of other groups).

So, when does the RBN think you are asleep?

# 3D BASE CAMP OR CLIMBING THE LEARNING CURVE

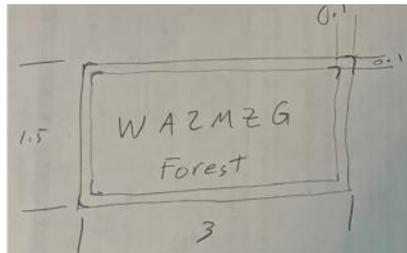
FOREST SHICK, WA2MZG

If 3D Printing is new to you and 3D Drawing is new to you, then the learning curve can be formidable! Both aspects are new to me. The idea and concepts are not new but taking an idea and turning it into a 3D drawing and then a physical / mechanical device is new to me.

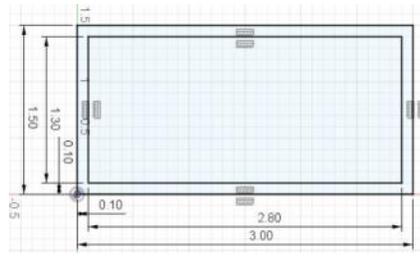
## 3D Drawing

As usual – garbage in - garbage out – with any computer program. First step – STUDY. I watched many hours of videos on learning Fusion 360. I provided links in my April RAG article for many videos. Some were a series of videos – watch them all.

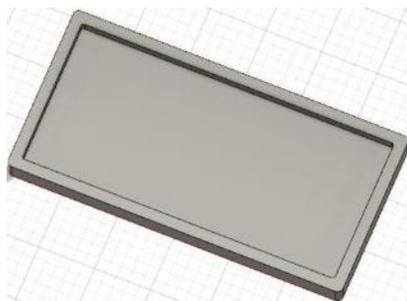
- Try sketching your idea with paper and pencil AND eraser.
- Start SIMPLE – rectangular call sign plate.
- Organize what features you need: thickness, border, text, text size, etc.
- Design with the largest and flattest surface as the bottom



Paper Sketch



Computer Sketch



Add Thickness - Extrude



Place Text



Nameplate with Extruded Text



Finished Nameplate

## 3D Printing

You are probably extremely interested to fire up your printer and see what happens. I was. Watch videos on how to 3D print. Both the printing and drawing videos are worth the investment in time. (You may want to watch some videos multiple times – I did.)

After you have your printer assembled and all adjustments made – try some test prints. Maybe your printer came with few test files. Printing is a good break from watching all the videos. I was mesmerized watching the printer draw all the tiny lines to make the figures.

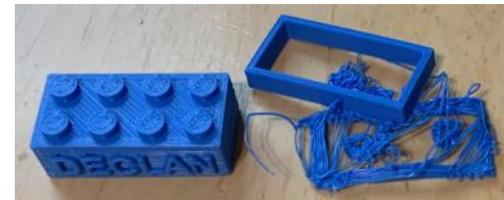


If you would like more ideas to print, go to <https://www.thingiverse.com/> and download a project or 2 and print them.



## 3D Drawing and Printing

As you are watching all the videos and hopefully doing some test prints, many of the videos have interesting projects that you can draw and then print for example making [LEGO Bricks](#).



This is probably a good time to mention that sometimes there are “accidents”.

All part of the learning curve. In this case, the brick did not stick to the glass plate as it was being printed and moved while the plastic was being extruded.

As you design your own projects, you will end up experimenting to determine how printable your design is, how does the printed object match your ideas and does the printed object satisfy your design goal.

Guess what – you will have scrap pieces as you learn. This is just a small sample of the “mountain” of scrap I created.



You may be wondering - Why a 3D printer article in a Ham Radio Newsletter? Simple - you can turn your ham radio ideas into reality. I have started many projects and they are left unfinished because I did not have a case to put them in.

For example I purchased this nice wattmeter but it did not come with a case. Now it has one - my first design attempt!



Elecraft W-1 Wattmeter



Now in a nice case

I designed a case to experiment with ideas such as the connectors on the back and the graphic display on a sloped front panel. It takes about 16 hours to print the 3 pieces of this small case: top, bottom and bezel.



With the small case looking good I decided to enlarge it for a small SDR receiver with graphics LCD and speaker.



It takes 20 hours to print the 3 pieces of the large case.

The case still needs a bit of tweaking - I will add a USB connector for programming the micro once the unit is built.

The speaker will be held in place with 2 nuts on plastic screws extruded in the case.

**lambic Paddle** found on Thingiverse and my redesign. Each was an improvement over the previous. The design was reduced from 5 screws to 2 and a brass tube.



Enjoy the journey.

# THE GROWTH OF VOIP FOR HAM RADIO AND SOME PERSONAL EXPERIENCES

STEVE VERZULLI, KA1CNF

No repeaters, no internet (in your immediate location), HF bands dead, Tech license but still want to talk around the world with just an HT, no problem!

This article is more of a “what I have done” rather than a how to. There are plenty of “how to” resources on the internet such as Youtube videos and numerous blogs on how to get started with VoIP. I recommend the book “VoIP: Internet Linking for Radio Amateurs” available from the ARRL and written by Jonathan Taylor, K1RFD, the developer of Echolink. Another introduction is Steve Ford’s article in the February 2003 issue of QST. You can either build your own VoIP node/interface or buy one completely assembled and tested. (See [hamvoip.org](http://hamvoip.org), [Echolink.org](http://Echolink.org), [irlp.net](http://irlp.net), [technobygeorge.com](http://technobygeorge.com), [Allstarlink.org](http://Allstarlink.org), [www.node-ventures.com](http://www.node-ventures.com), [hamprojects.info](http://hamprojects.info), [hamshackhotline.com](http://hamshackhotline.com) for just a few).

Internet linking has been around for a long time and hams have been using it in many applications. There are many modes with Allstar, Echolink and IRLP being the most popular. A lot has changed since Duane Fregoe’s, K2SI, RARA Academy #4 presentation in 2012. What I see today is the Allstar, Echolink and IRLP modes continue to increase in popularity, particularly Allstar with 17,800 users and 13,600 nodes in November 2019 growing to 22,116 users and 19,394 nodes worldwide today. Echolink just got its first software update in 14 years last month. K2SI, noted many reasons why VoIP is popular. I will add that the increase in popularity is also due to the small low cost Raspberry Pi computer. I picked up my first one in early 2013. Hamvoip.org software will run on this small computer with Allstar, Echolink and IRLP built in. Another version is AllstarLink and the Clearnode from Node-Ventures will also do a digital mode, DMR, all on a Raspberry Pi with a low power transceiver attached/interfaced to the Pi.

When I am out of range of the repeater the Echolink app on my Android phone will allow me to check into the ARES/RACES nets. There is also an Echolink app for iOS devices. In 2020 I set up an Echolink RF link to a local club repeater so club members who are outside the area such as folks who winter in Florida, those who cannot reach the repeater from their locations or HOA restrictions which prevent them from putting up an outside antenna to reach the repeater can participate in the Club nets.



This picture shows the portable Allstar node.

Setup is on the open porch area of a cabin in the Adirondacks. There is also a cellular hotspot for internet connection.

The box contains a 12 volt to 5 and 4.5 volt power supply, usb audio module, Raspberry Pi computer with App\_rpt, software (modified version of the Asterisk software) and an inexpensive dual band hand held radio. The dual band antenna is a mag mount attached to a metal bench off to the right.

I have also been using Allstar for several years, first as a repeater controller with two Maxtrac Motorola radios, one for receive and one for transmit. I later converted it as a simplex node on 70 cm and later adding a second radio on 220 MHz with its own Allstar node. 220 MHz is under utilized spectrum and the RF noise level is low on this band. You can also use Allstar, Echolink or IRLP which are installed on several local repeaters but having my own systems was a fun learning experience and I don’t tie up a repeater when I want to listen to the many nets on VoIP. Allstar is a very powerful system with many features similar to Echolink and IRLP, but in my opinion the audio quality is better and it has more powerful features that you can enable. Using an HT on low power to connect to the node extends battery life and using it on a hike, around the neighborhood or bike rides allows me to talk anywhere in the world through the thousands of connections available.

Another use case: I vacation yearly in the Adirondacks and I take my portable Allstar node with me. When I kayak I am often several miles from the cabin and cannot hit any repeaters and there is no cell service. I do have cell service in the cabin where I have my Allstar node setup. On one occasion I was able to talk to a fellow ham back in Rochester while on the water using an HT. My signal reached several miles to my portable node then used the internet (VoIP part) to connect to a repeater back in Rochester.

I can also listen to the many nets active all day and into the night on Allstar/Echolink/IRLP. Some nets have specific topics. Just a partial listing: Alaska Morning net, the insomniac net, boredom breakers net and technets. One of

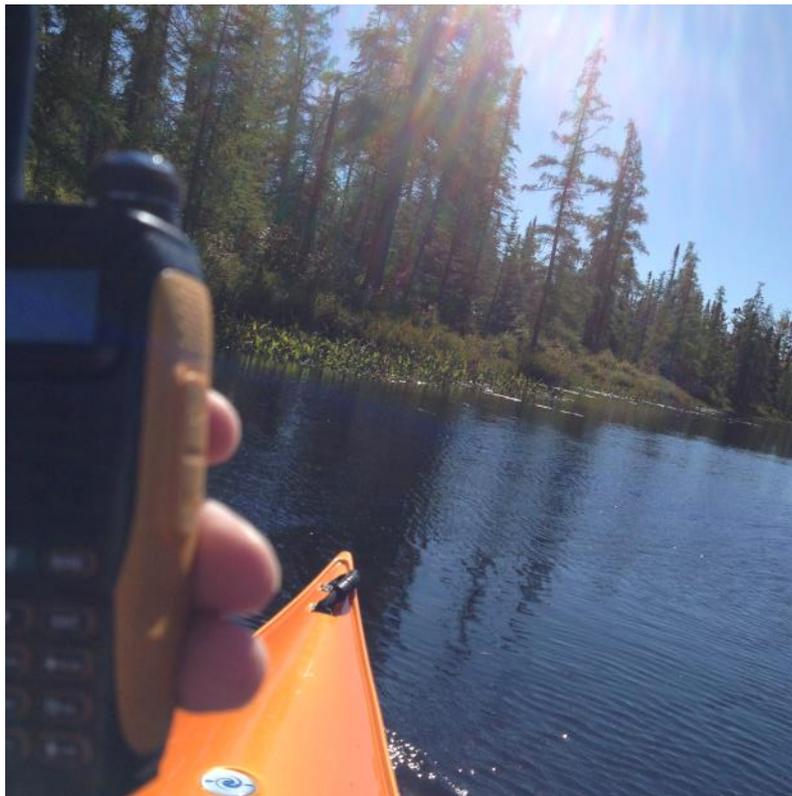
my favorite nets is the Raspberry Pi net on Sunday afternoon where I always learn something new.

And when I am in the “shack” and don’t want to use an HT or mobile radio I power up my “radioless node” or connect with my cellphone using one of the many apps.

In the future, look for more users to check in with more interconnecting and bridging between analog and digital modes being done. Use my Fusion radio to talk on an analog VoIP system? Yes I can do that! See DVSwitch!

It is rewarding for me to know that I can communicate from almost anywhere to anywhere whether for a casual conversation or for emergency use. Don’t hesitate to contact me for much more information on this topic.

[verzulli@yahoo.com](mailto:verzulli@yahoo.com)



## NEW RAG FEATURES

Last year we added a new feature by supporting articles with videos. It went very well for a few issues. Lately we have not had any videos to support articles.

If a picture is worth a 1000 words - what is a video worth?

You do not need fancy video equipment. Use your cell phone camera. Some digital SLR’s have a video mode. Plan out what you will be videoing, write a short script and shoot!

This month I would like to add a **Show and Tell** page.

Do not write a complete article. It can be as simple as a picture of your project with a title and brief description. Share your ideas!

Do not make it an ad for some product.

This is an opportunity to show what you have done on a low pressure / simple platform.

Take a chance and share your idea.

## SHOW AND TELL

### AM BROADCAST BAND FILTER; KARL HEINZ KREMER, K5KHK



I live less than two miles from the WHAM AM transmitter, 50,000 Watts in my backyard.

I took the design from VK3IL  
<https://vk3il.net/projects/broadcast-band-filter/>

Filter performance was verified using my nanoVNA and was very close to what was expected.



# RAGS OF THE PAST

ED GABLE, K2MP, RARA HISTORIAN

## 20 Years Ago, May 2001

Following a time period of several decades this issue of the Rag introduced Old Timer's Night to those eagerly waiting for this popular event. Typically RARA took advantage of local well trained talent from a unique source of speakers coming from the Antique Wireless Association in nearby Bloomfield, New York. Old Time members fondly remember Bruce Kelley, W2ICE (sk), AWA's 1st Museum Curator and RARA Historian, with his big booming voice, as a much sought after speaker on a nationwide basis. Following Bruce was AWA Curator Ed Gable K2MP/W2AN, who is now also RARA Historian, who for many years emulated Bruce's presence on OT Nights. In the last issue of the Rag you will remember the current AWA Museum Curator, Mr. Lynn Bisha, W2BSN, being introduced as the April 8, 2021, speaker for Old Timer's Night at RARA. Some traditions are worth waiting for. But back to the May, 2001, issue. The subject for the program was titled "So You Think Your Antenna is Big!" Ed Gable took you back to the days where commercial trans-Atlantic radio stations used antennas that were four miles long and spread on 400 foot high towers. Emphasizing that statement was a picture of two AWA volunteers, holding an antenna insulator that weighed 110 pounds, from that retired RCA Rocky Point antenna site. Lloyd Cave's, WB2EFU/N2PU, first of two articles introduced RARA's annual business meeting and chronicled election of officers and board members. This year there was a real election where nominees outnumbered the chairs to be filled. Results to follow. Lloyd not only filled this issue with biographies of each nominee, but his second page engulfing effort published a minute by minute schedule of events for the pending three day Rochester Hamfest in June, held at the Dome Arena and the Marriott Hotel. Peter Fournia, W2SKY, wrote inviting members to the annual June 16th RARA Picnic. This year's event, held at Creekside Lodge in Ellison Park, featured a hidden 2 mtr FM transmitter hunt as well as other events in the fun and games category. Beverages provided by RARA, bring a dish to pass. Outgoing Licensing Class Director Tim MaGee, WB2KAO, gave a progress report on the current students who are getting a final heads up on the examination procedures they will be facing soon. Taking advantage of Tim's space in the Rag was the new Licensing Class Director, Norm Turner WB2LQB. Norm alerted the membership that plans are well along for the future Fall and Spring semesters but that he is in need of an instructor for Technician Class theory. Rachel Schwing, KC2DKB, took pen in hand to tell of plans for the next RARRA meeting where Al Skiles, W2AES, will speak on the planned August International Lighthouse weekend. Continuing his multi-part writings on his fascinating visits to China and their emerging Amateur Radio activity, was Ron Roach, W2FUI. Ron's message in this issue told of China's emergence from a state owned industrial system to entrepreneurial self-owned businesses. Ron told of helping Han, BZ5HAN, in his twelve by twelve foot industrial setting by building and setting up computers that were in heavy demand. Working throughout the day, Ron told of receiving a nice lunch of rice, vegetables and "meat of an unknown origin." From within Ed Gable's, K2MP, DX/Contesting column, we remember nice DX catches such as 3B6RF from Agalega on an eleven day DX'pedition. Their QSL manager was U.S. based

N3SL, always good news during these pre-LoTW days. D70IAF (Delta-seven-zero) offered Korea from the newly opened International Airport. Another surprise just popped up with VP8SGK on-air from South Georgia only to be joined by another semi-rare ZY0SAT from St. Peter/Paul Rocks. News from the RDXA was their new web site with Scott, K2ZS, as web master. RDXA at this time was meeting at 111 Westfall Road. This issue also saw Atlantic Division Director Bernie Fuller, N3EFN, writing a nice description of proposed NYS PRB-1, that if approved, would offer much relief to those of us trying to get tower building permits approved. Bernie told how to generate a letter encouraging passage that could be sent to your Assemblyman and Senator. With deep regret it was reported that Edward (Cappy) R. Capauldy, K2UXF, was reported a Silent Key. Cappy was very active in local ham radio activities, a past ReRa president and an accomplished and well liked Ham Radio Auctioneer in the early days of RARA. And now, the rest of the story, sit down and get a cup of coffee. Cappy was involved with radio when home brewing was still very much in vogue. Hams would still buy or scrounge parts and build from QST or CQ magazine articles more than when assembling a Heathkit was considered home brewing. The proper use of tools, soldering techniques and part selection were all part of growing up. Your Elmer not only taught you the definition of a 2nd harmonic, but he taught you proper wire dress and use of insulation to prevent shorting wires and etc. Life was good. So imagine our new ham, building an early Heathkit that clearly stated "install R7, 1,000 ohm (brown-black-red) from V-1 pin 4 to V-3 pin 6, use spaghetti on pin 6." Years later our new ham is upgrading his equipment and takes his well-built, well-functioning Heathkit to the RARA Auction. Taking a tip from an experienced ham trader, he took the cabinet off so that potential buyers could see the good workmanship. So here's Cappy (remember him, this is his story) holding up the radio and looking underneath the chassis, and just stops. He can't breathe, he can't talk he just stands there looking at the bottom of the radio. At every instruction where the builder was told to use spaghetti, and not finding any in the kit, he went to the kitchen and substituted uncooked elbow macaroni. It worked just fine! From the Want Ads you could buy an ICOM 375A 220 Mhz SSB Transceiver from Len Gessin, WA2ZNC. MaryKay Vesco, KC2DPG, Life, Accident and Health Insurance agent was a commercial advertiser.

This was RARA's Annual Business meeting that included election of officers and members of the Board of Directors for the following year. It has always been the practice to have the current year Vice President to automatically move to the office of President. The Nominating Committee consisted of Ash Palmer K2EAW, Al Mumby WB2MCP, Roger Dennis WB2HWO, and the current president Otto Bluntzer WB2RJB. Results will be published in the next issue of the RARA Rag. Program Chairman Don Drennon W2EBF, wrote to announce a joint program with the Rochester DX Association with unique film program entitled "7J1RL, Okino-Tori-Shima," the story of a country completely under water at high tide! The film covered the story of a group of Japanese Amateurs and their exciting, but wet, adventures. RARA took this opportunity to print congratulations to Gregory Quenell WA2BWO, of East Rochester High school, who was just awarded the National Honor Society's National Merit Award, having been selected out of 1.1 million qualified students. Greg's proud father was John, K2ORG. Lost in time was RARA's prize award of a high quality office chair for the ham shack, given at the Annual Meeting. The event was remembered in 1981, and the happy winner was Dave Hassett K2SQI (sk). FM operating advocate Ray Pickens WA2MYG, wrote to tell how wide area FM and FM Repeater operations have expanded traffic handling on VHF. Ray went on to encourage folks to monitor the Wethersfield repeater, W2ZIA, on 04/64 and jump in when local traffic is listed. Also in the public service vein was the writing of Stan Zak, KA2U, who is looking for volunteers to work the Iron Man Triathlon to be held in August at the Hamlin Beach State Park. At this time RARA Secretary Dave Coleman N2AOB, wrote a small column covering highlights of the previous RARA Board of Directors meeting. The Board discussed without action: budget expenditures are expected to exceed income by the end of the year. The Farm and Home Center, a popular past meeting venue, may be available again. Ed Holdsworth N2EH, reported the K2JD club station rotator is out of commission and seeks advice on building a circuit to protect the rotor. Warren Ulrich N2AUV, writing for the Rochester Radio Repeater Association and their Hamfest Talk-in activity, wrote seeking volunteers to operate the station purposed to guide out of town mobiles in to the hamfest sight. At this time RARA did not always publish silent keys and there were none reported this month. From the Want Ads you could buy a Kenwood TS-820-S, for \$650.00, from Chic Cerasol. A long term commercial advertiser was The Radio Amateur's Journal, aka "CQ Magazine."

# The RARA RAG

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## RaRa Annual Meeting May 1st

by D. H. Drennan, W2EBF

The May 1st RaRa meeting will feature an excellent film entitled *7J1RL Okino-Tori-Shima*. This film covers the exciting adventures of a Japanese DX operation from a small island that is completely under water during high tide.

In addition to our regular business meeting, the annual business of electing officers and board members for 1981/82 season will take place. Elsewhere in this issue, the report of the Nominating Committee and those nominated from the floor at the April meeting are listed. Further nominations from the floor will be accepted prior to the election. Remember it is common courtesy and practice to obtain prior acceptance from the individual before you nominate them.

As usual, the meeting will start at 8 p.m. at the Statesman Club, 19th Floor, First Federal & Loan Building Plaza located at State and Main Street intersection.

Let's have a big turnout for the annual meeting. See you there.

## Notice of Annual Meeting: May 1st

To the members:

The Annual Meeting of the Membership of the Rochester Amateur Radio Association, Inc. will be held at the Statesmans Club of the First Federal Bank, One First Federal Plaza, West Main Street & State Street, Rochester, New York on May 1, 1981 at 8:00 p.m. for the following purposes:

- (1) To elect officers
- (2) To elect a Board of Directors
- (3) To determine the dues for 1981-82.

By Order of the Board of Directors  
David W. Coleman, Secretary

Rochester, New York  
April 8, 1981

## CLUB OFFICERS, DIRECTORS NOMINATED

One function of the annual meeting of RaRa is to elect its officers to serve for the following year. To ensure continuity and provide well qualified candidates the President appoints a Nominating Committee. This year the Committee was made up of the following: Ash Palmer, K2EAW; Al Mumby, WB2MCP; and Roger Dennis, WB2HWO. In addition, President Otto Bluntzer, WB2RJB; and Vice-President Don Drennan, W2EBF, sat in on the meeting of the Committee on March 17th. This year the RaRa Board asked that the Committee seek candidates that were sure to have the time to devote to the Club Meetings and the Board Meetings both, in addition to time spent upon other Club functions. It was also desired that those serving as officers have prior experience on the RaRa Board.

The annual election is an important event for the members of RaRa as it determines the leadership of the organization for the coming two years. The By-Laws state that "Full Members" shall elect a Board of not less than seven (7) nor more than eleven (11) full members. The By-Laws provide that the current Vice-President succeeds automatically to the Presidency.

The Nominating Committee took as its guiding philosophy a balance of new and old to provide greater involvement by new and old members, and at the same time providing a continuity of leadership from the more experienced members. The Nominating Committee developed the following list of candidates, using its guidelines and best judgement for the Club. Also, the opportunity exists at the April and May meetings for nominations to be made from the floor by members.

Voting will take place at the Annual Meeting in May. Only Full Members are eligible to vote, so be sure to bring your current membership card if you are a full member. If you have been an Associate Member, bring proof of your full member status, your currently valid amateur radio license.

# VE TEAM

Testing on Saturday May 15th

Last Session Till September

Damascus Shriners  
979 Bay Rd, Webster, NY 14580  
With COVID Restrictions  
Please Read Carefully!

A **COVID Questionnaire**

Must be Filled Out Either On-site or  
Prior to Attending

Online Preregistration is required  
The session size is limited to 20

Click to register: <https://hamstudy.org/sessions/602ec38e243e0b846c0999ce/1>

Applicants must supply their own PPE  
(Mask is a minimum), pen, pencil, calculator and  
be COVID negative and symptom free

Testing begins at 10:00AM.  
Testing is free!

## CW ELMERS

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

## LICENSE TEST RESULTS

Edward Ellingsworth	N2IUO	E	Carl Bourke	KC2NRU	G
<b>Alexander Janke</b>	KD2WEK	T	Daniel Durbaro	KD2SQB	G
Thomas Bennett	KD2VRS	G	<b>Cole Lyman</b>	KD2WEL	T
Lawrence Roth	KD2VYK	G	Patrick Stagles Jr	KD2VYM	G
Mark Vernacotola	W2MJV	G	George Adams IV	K4GWA	E
<b>Sreeram Dhurjaty</b>	AD2BW	E	<b>Peter Traeg</b>	KD2WEM	T
<b>David Wiener</b>	KD2WEN	T	Richard Bishopp	KD2UBJ	E
David Skeldon	KD2DKS	G			

New licensees names are in BOLD

## RADIO ELMERS

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

# RARA CALENDAR

TIM BARRETT, K9VB, MEMBERSHIP SECRETARY

May 2021						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						<b>1</b> ROC City Net 28.405 MHz, 7:30p Araucaria WW VHF Contest 10-10 Contest CW ARI DX Contest 7 <sup>th</sup> Call Area QSO Party IN, DE, New Eng QSO Parties FISTS Sprint
<b>2</b> Araucaria WW VHF Contest 10-10 Contest CW ARI DX Contest 7 <sup>th</sup> Call Area QSO Party IN, DE, New Eng QSO Parties FISTS Sprint	<b>3</b> AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB OK1WC Memorial WW Sideband Activity Contest ARS Spartan Sprint	<b>4</b> RTTYOPS Weeksprint MIE33 Contest Phone Weekly Test Fray	<b>5</b> RaRa Monthly Mtg ONLINE 7pm ROC City Net 3.810 MHz, 7 pm CW Ops Mini-CWT Test VHF/UHF FT8 Activity Contest RSGB FT4 Contest Series	<b>6</b> RaRa BoD 6:30pm ONLINE ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.200 USB RTTYOPs Weeksprint NRAU 10M Activity Contest NCCC Sprints	<b>7</b> K1USN Slow Speed Test	<b>8</b> ROC City Net 28.405 MHz, 7:30p Volta WW RTTY Contest CQ-M Int DX Contest AR QSO Party SKCC Sprintathon 50MHz Spring Sprint
<b>9</b> Day of the YLs Contest Volta WW RTTY Contest CQ-M Int DX Contest WAB 7MHz Phone/CW SKCC Sprintathon 4 States QRP Group Sprint	<b>10</b> AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB OK1WC Memorial WW Sideband Activity Contest RSGB 80M Club Champ, SSB	<b>11</b> Phone Weekly Test Fray RTTYOPS Weeksprint	<b>12</b> ROC City Net 3.810 MHz, 7 pm CW Ops Mini-CWT Test VHF/UHF FT8 Activity Contest	<b>13</b> ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.200 USB QRP Minimal Art Session RTTYOPs Weeksprint NCCC Sprints	<b>14</b> K1USN Slow Speed Test	<b>15</b> ROC City Net 28.405 MHz, 7:30p King of Spain Contest CW NZART Sangster Shield Feld Hell Sprint
<b>16</b> King of Spain Contest CW NZART Sangster Shield Feld Hell Sprint	<b>17</b> AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB OK1WC Memorial WW Sideband Activity Contest	<b>18</b> Phone Weekly Test Fray RTTYOPS Weeksprint	<b>19</b> ROC City Net 3.810 MHz, 7 pm CW Ops Mini-CWT Test NAQCC CW Sprint	<b>20</b> ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.200 USB RTTYOPs Weeksprint NCCC Sprints	<b>21</b> K1USN Slow Speed Test HAMVENTION QSO Party	<b>22</b> ROC City Net 28.405 MHz, 7:30p RARA Academy Hands on YOTA Contest EU PSK DX Contest Baltic Contest
<b>23</b> EU PSK DX Contest Baltic Contest	<b>24</b> AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB OK1WC Memorial WW Sideband Activity Contest	<b>25</b> Phone Weekly Test Fray RTTYOPS Weeksprint SKCC Sprint	<b>26</b> ROC City Net 3.810 MHz, 7 pm CW Ops Mini-CWT Test	<b>27</b> ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.200 USB RTTYOPs Weeksprint NCCC Sprints	<b>28</b> K1USN Slow Speed Test	<b>29</b> ROC City Net 28.405 MHz, 7:30p CQ WW WPX Contest, CW
<b>30</b> CQ WW WPX Contest, CW	<b>31</b> AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB OK1WC Memorial WW Sideband Activity Contest QCX Challenge					

# 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](mailto: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](http://www.monroecountymcomm.org)

Facebook : Monroe County Amateur Radio Emergency Service, Inc.

Twitter @MCARESNY

**Severe Weather Alerts:** Winter may bring severe weather in the form of heavy snow storms, strong winds, and flooding. If you experience severe weather, especially when accompanied by damage to property in your area, listen to your local ARES/RACES repeaters for information. While official ARES/RACES activation could be a possibility, it is more important that we open a spontaneous net simply to share information about weather conditions in your immediate area. Don't wait for someone else to do it. Pick up the microphone and start a net. Have each check-in station give you a situational awareness report and emergency power report. If you don't have a copy of the directed net protocol, you can find one at the WEB address listed above. (Activities/ARES Net/ Net Script/ Downloads). We encourage all amateur radio operators to take a free Skywarn TM class offered by the National Weather Service. The schedule of classes can be found at <https://www.weather.gov/buf/skywarn>

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

## ROCHESTER DX ASSOCIATION, RDXA

The RDXA is pleased to announce that John Miller, K6MM will be presenting a program on one of his fascinating DXpeditions for our Tuesday, 18 May Zoom meeting. John reviewed his KP5 adventures in November and no one was disappointed.



"Live" question will be answered by John, a veteran of many highly regarded DXpeditions.

The Zoom meeting is open to all, login information can be found on our website at [RDXA.COM](http://RDXA.COM) - the presentation begins at 7:30pm

## ROCHESTER RADIO REPEATER ASSOCIATION

The Rochester Radio Repeater Association, RRRRA will not be having its regular meeting on May 21st 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](http://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 O Dell, 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](http://www.k2rra.org)

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](mailto: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.

## ROCHESTER VHF GROUP 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. 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.

Both CCARES and ARAST monthly meetings are being held online until further notice. Check out the Upcoming Events at our website, [www.arast.info](http://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.

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](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 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).

The Keuka Lake Amateur Radio Association Hamfest is scheduled for August 21st at the Howard Community Center and we will have testing for anyone wanting to be a new Ham or upgrade!. For those who want to we offer free camping Friday night, Saturday night and leave by noon Sunday. All part of your Hamfest ticket. Contact KLARA via email if you wish to camp. Hope to see you at the friendliest little hamfest and a great breakfast shared with awesome Hams!

## ORLEANS COUNTY AMATEUR RADIO CLUB

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

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

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

## THE AMATEUR'S CODE

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

### THE RADIO AMATEUR IS:

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

## **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, May 12th 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. There will be License Exam Testing starting at 6:30PM. Pre registration is required. 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](mailto: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](mailto: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/>

# ESTATE SALE

Equipment from the estate of Rodger Burkhart, W2RMB

## DATES

Friday May 7th and Saturday May 8th  
10am to 3pm each day

## LOCATION

Town of Greece,  
44 Lambert St. Rochester NY 14616  
Off Cloverdale which is off Dewey Ave.

## RIGS FOR SALE

Ameritron AL-80B, Hard Rock-50 AMP w ATU  
Anytone D878UV, Baofeng UV-82,  
Elecraft KX2,KX3,PX3 Sidecar cw Reader  
ICOM IC-7300, ID-5100, ID-51A & Accesories  
Kenwood TS-590, MC-60, TH-D74 & Charger  
Yaesu FTM-400DR/DE, FT857, FT891, FT2DR/DE  
QRP LABS QCX-20

## ANTENNAS

Buddipole Deluxe Package  
G5RV-JR, Wolfriver Coils,  
EFHW 4010, OCF-3K80  
MFJ-1979, MFJ-1717S  
High Sierra Screwdriver  
Diamond V7000, SG7500,SPM/NMO  
Comet CA-2X4SR,CP-5M, Compac 2m/400

## ANTENNA TUNERS

LDG AT-100PRO II, Z-100 PLUS  
MFJ-949D, MFJ-901B  
PALSTAR PAS-AT2KD

## COAX

RG-213 100FT X 4,  
RG8U 125FT,  
RG8X 12, 25,100, 250 FT,  
DXE-UT-CRM2 CRIMPER

## POWER DEVICES

Astron VS70M  
Bienno BLF1212AB, BLF1220AS  
Various Chargers for Rigs  
PowerPole Connectors, Crimpers  
Red/Black 12ga DC wire

## MORSE CODE KEYS

Keys by Begali, Kent, N3ZN

## MISCELLANEOUS

Drive on wheel base for vertical mast  
20ft and 45ft steel masts  
8 Military 4ft interlocking fiber poles  
HiTec RDX-1 Multi Charger  
GAP Challenger DX-VIII Vertical Multiband  
GAP TILT-G Quick tilt over base  
Pelican 1620 case 21" x 16" x 12"  
APACHE 1200 & 3800 Equip Boxes

## MANY MANY MORE ITEMS

CASH AND CHECKS WILL BE ACCEPTED

# RARA OFFICERS, DIRECTORS AND COORDINATORS

## OFFICERS

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

## DIRECTORS

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## ACTIVITY COORDINATORS

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## ROCHESTER AREA RADIO CLUB CONTACTS

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

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### Astronomy Section Rochester Academy of Science

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### Community Amateur Radio Club (CARC)

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### Digital Communications Association of Perinton (DCAP)

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

[drumlinsarc@gmail.com](mailto:drumlinsarc@gmail.com)

### Fisherman's Net Amateur Radio Club

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### Genesee Valley Amateur Radio Assn.

Bill Boyd, N3DSP: [N3DSP@lafireline.net](mailto:N3DSP@lafireline.net)

### Keuka Lake Amateur Radio Association (KLARA)

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### Orleans County Amateur Radio Club (OCARC)

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### Rochester VHF Group (RVHFG)

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### XRX Amateur Radio Club

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

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## Rochester Area Repeater Listing

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