



THE RARA RAG

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

FEBRUARY 2023
VOLUME 75, ISSUE 6

INSIDE THIS ISSUE

MONTHLY PROGRAM	1
BOARDZ BUZZ	2
CALENDAR OF EVENTS	2
MEMBERSHIP	3
EDUCATION	4
ELMERS' CORNER	4
PROFESSOR'S PIC(K)S	6
RAFFLE PRIZES	6
EDITORS NOTE	6
PUBLIC SERVICE REPORT	7
JANUARY 2023 MEETING	8
WINTERFEST 2023	9
HAMFEST 2023	9
REPEATER LISTINGS	9
BAILEY-SPROTT CHALLENGE	10
SOMETIMES	11
RAGS OF THE PAST	14
CALENDAR	16
VE TEAM	17
NEWS FROM AREA CLUBS	18
AMATEUR'S CODE	20
RARA OFFICERS	21
AREA CLUB CONTACTS	22

WORKING THE DIGITAL MODES

TIM BARRETT, K9VB, RARA VICE PRESIDENT

Our speaker for February is RARA member Jeremy Gaynor, K5JSG who is going to take us through the digital radio modes and show how to set up our radios and computers to get on the air with them. Jeremy has kindly provided the outline of his presentation below.

'Struggling with setting up the WSJT-X software? Would you like some pointers for getting those QSO's? Don't know how to use Fox/Hound? What is WSPR? In my presentation, I will be going over what hardware is required, and then some of the basic setup steps for the WSJT-X software. I also plan on briefly going over what some of the other modes are, and what they are used for. (FT4, FT8, WSPR, Fox/Hound, Field Day, etc.)

Finally, I will be giving some tips to not only get that QSO you're trying so hard to get, but maybe put you at the head of the line. I'm hoping to setup a station and do a live demo.'

Please join us on Wednesday, February 1st, 2023, 7:00PM at the Boy Scouts Headquarters at 2320 Brighton Henrietta Townline Road, Rochester, New York 14623 or online by registering at <https://attendee.gotowebinar.com/register/2200203460045456475>.



RARA



 YouTube

BOARDZ BUZZ

SCOTT THEIS, W2LW, RARA PRESIDENT

So, after a few months, I am settling into the role of President. In my view, one of my key responsibilities is to steer the club to better fulfill its mission statement. One of those mission items is education. As a club we have discussed more operating events and more education with actual hands-on participation.

Getting a chance to play with equipment in a real-world situation is truly invaluable to learning how things work. Many folks learn by watching and doing, and hands-on events also offer the ability to experience equipment a ham may purchase in the future.

We are fortunate to have a little nest egg of funds to help us in this endeavor and others. Your board is moving forward with one initiative and considering a second program.

The Field Kit

Currently the club has a Yaesu FT-450D and a set of supporting items such as a power supply, antennas, etc. The FT-450D is a fine radio but lacks many of the features available today in several midrange transceivers and higher end products.

A board resolution has been approved to invest up to \$3,000 for a rig such as the Icom IC-7300 or the Yaesu FT-710. Accessories will include a protective case, another antenna (possibly a vertical), power supply, battery power, and other supporting items.



While each of these rigs retails for under \$1,100, all the extras and supporting stuff adds up.

The setup would augment our FT-450D with its supporting equipment and allow for two club HF stations to be setup at events.

Public Service Equipment

We are also exploring having RARA be able to have some equipment for volunteers to use during public service events. In this case, the equipment is mostly in the VHF/UHF range: possibly two full mobile setups, with temporary power support. In addition, we are looking at mag mount antennas to augment HTs for improved performance.

Paying for the Gear

Cash is not an issue, but we would also like to have direct member investment. The club has an ever-growing points liability (meaning that as points are award-

ed and not redeemed it adds to the year over year balance sheet liability). We would like to offer an opportunity for members to contribute some of their points towards the purchase. Several members have already offered to donate points toward these initiatives.

As part of this process, I will be setting up a web page to allow for members to buy-in and perhaps even throw a few bucks at the project. This should hopefully be available by the next general meeting on the 1st of February.

Initial Application

Two operating events are planned for this spring: a POTA event on April 15th and a GOTA event on May 13th focusing on new hams.

Winterfest

Winterfest is another application of a second HF station, but I doubt we will have the new gear by then. But don't let that keep you from coming and having fun. It is a great event which is on February 18th at Stewart Lodge in Mendon Ponds Park. See page 9 for the details.

Finally

We are a radio club, so we should have more gear, but only if it gets practical application. We have two events planned for the first part of 2023, maybe we can have some field day participation as a club for June of this year?

Please comment or send questions to president@rochesterham.org.

CALENDAR OF EVENTS

WEDNESDAY FEBRUARY 1, 2023 - RARA Meeting In Person and On-Line
7:00 PM - AT THIS LINK

<https://attendee.gotowebinar.com/register/2200203460045456475>

THURSDAY FEBRUARY 2, 2023 - RARA Board of Directors Meeting
6:30 PM - ONLINE

Email request for link to secretary@rochesterham.org

SATURDAY FEBRUARY 18, 2023 - Winterfest

RARA MEMBERSHIP NEWS

TIM BARRETT, K9VB, RARA VICE PRESIDENT AND MEMBERSHIP SECRETARY

Our club has a very healthy membership, standing at 584 members on September 30th, the end of our membership year. Thanks to all of those who have already renewed but there are still a number of lapsed members, currently our membership stands at 496 so if you haven't done so yet, please renew your membership [here](#).

There are many membership benefits, here are just some of them:

- Only members can attend the RARA Annual Auction
- Free admission to the RARA Hamfest
- Access to license classes and discounts for license manuals
- Annual events such as the Picnic and Winterfest
- Membership points for contributing to club events
- Supporting an Organization that hopefully you value!



Being a member is also important, as your dues and a healthy membership count contribute to many RARA activities such as Rag subscription, monthly meetings, RARA Academy sessions Elmer's Corner, [groups.io](#) mailing list, Facebook page, etc. Attracting good speakers is greatly helped when we can point to the size of our club, one of the largest ARRL affiliated clubs by the way. So, if you are not currently a member or have lapsed, please consider changing that!

I'd also like to give a warm welcome to the following people who have joined the club in the last month:

Kevin de la Sota Michele Brown Niam Brown de la Sota Maximo Brown de la Sota Jon Harkness Jiwoo Park Heston Van Evera Anna-Marie Van Evera

If you see any of our new members at a RARA meeting or other event make sure to introduce yourself and welcome them to the club!



EDUCATION

Karl Heinz Kremer, K5KHK, Education Coordinator

RARA LICENSE COURSES

Karl Heinz Kremer, K5KHK, License Class Coordinator

License Classes

Our Technician and General license classes have started, there is still time to sign up for the Amateur Extra class, which will start on February 6th 2023. As always, if you are interested in any of our classes, please send an email to education@rochesterham.org.

License Manuals

The current editions of the Technician and Amateur Extra license manuals are available to our members at a discount for \$25. For this discount, we unfortunately cannot deliver, and you would have to pick up the manual. The General license manual will get renewed in the summer and we are not stocking any of those until the new edition comes in. If you are interested, please send an email to education@rochesterham.org

RARA ACADEMY

We just finished our four-month program about antenna modelling with 4NEC2.

We are still looking for input in what our next Academy session should cover. To make it easy for our members to provide such input, we created an online survey. Please go to <http://tiny.cc/RaRaAcademySurvey2022> and fill out the survey.

If this short link should not work, you can also use this link: https://docs.google.com/forms/d/e/1FAIpQLSfe_RvJyAfc2BidWxePLvK1r_CjQosS1PV0Ua6m2zETiyPa-w/viewform

Operating Event for New(ish) Hams

Just like the last two years, we are again offering an operating event for new (ish) hams on May 13th at Black Creek Park in Chili. This is mainly for actually new hams, or new upgrades, but if you have not worked a certain mode, or practiced a certain skill yet, and have been a ham for a long time, we would still like to extend this invitation. Please register by sending an email to education@rochesterham.org, if you want, please add a short list of things you would like to learn. If you would like to participate as an Elmer, please also get in touch with me and let me know what you would like to present or teach.

RARA ELMERS' CORNER

Suzanne Bishopp, W2SUZ
Rich Bishopp, KD2UBJ
Elmers' Corner Coordinators

I can't believe it's almost time for our 2nd Elmers' Corner of the year. Our last Elmers' Corner zoom meeting had a lot more talk about antennas, as there was a lot of follow up questions and discussion that came after the EFHW presentation that we had at the last general meeting. We talked about the sizes and properties of toroids used to make matching units for antennas we might try to build. Many of us shared how we set up and use EFHWs in the field or at home. We also discussed soldering equipment and techniques like how to handle surface mount devices and control static discharge. I'll need to practice a bit before I build the FM receiver I won at the last general meeting.

Our next Elmers' Corner will be February 4th, but if you can't make it, we do record each session which I will share upon request.

Zoom is easy and available for everyone. Grab a cup of coffee (or whatever you like to drink) and join us. We talk about everything and anything radio related. Bring your questions, your tips and tricks, or just come and join in the conversation.

The Elmers' Corner happens the 1st Saturday of every month, September – May, 10am-12pm. But if you have a question or need help before then, just let us know. Reach out to us at any time at elmerscorner@rochesterham.org, we will do our best to find the right Elmer to answer your question.

ELMERS' CORNER

1st Saturday of the month
February 4th, 10AM – 12PM

Join Zoom Meeting
<https://us02web.zoom.us/j/83484674667?pwd=MG5DZXd6SFovN3lXa0NNTzM5UnBLUT09>

Meeting ID: 834 8467 4667
Passcode: 786545

One tap mobile
 +16465588656,,83484674667#,,,,*786545# US (New York)
 +13126266799,,83484674667#,,,,*786545# US (Chicago)
 Dial by your location

- +1 646 558 8656 US (New York)
- +1 312 626 6799 US (Chicago)
- +1 301 715 8592 US (Washington DC)
- +1 253 215 8782 US (Tacoma)
- +1 346 248 7799 US (Houston)
- +1 669 900 9128 US (San Jose)

Find your local number: <https://us02web.zoom.us/j/kiOoVkCMY>

MORSE CODE TRAINING

DAVE WILSON, WA2HOY, RXCWG COORDINATOR

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 Thursday evenings at 7:30pm.

Register at: tjbrown@rochester.rr.com

Those wanting to start into CW QSOs and Morse Code can schedule coaching sessions on Zoom. Contact Peter Fournia, W2SKY for further details.

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

W1AW On The Air CW Practice

Time	Mon	Tue	Wed	Thu	Fri
9 AM		Fast	Slow	Fast	Slow
4 PM	Fast	Slow	Fast	Slow	Fast
7 PM	Slow	Fast	Slow	Fast	Slow
10 PM	Fast	Slow	Fast	Slow	Fast

SLOW - 5, 7 1/2, 10, 13 and 15 wpm

FAST - 35, 30, 25, 20, 15, 13 and 10 wpm

FREQ(MHz) - 1.8025, 3.5815, 7.0475, 14.0475, 18.0975, 21.0675, 28.0675, 50.350, 147.555



Reprinted Courtesy June 1944 QST

RADIO ELMERS

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	Kingsland, GA	harryw7872@gmail.com

PROFESSOR'S PIC(K)S

JEFF SONSTEIN, WA2RRB

[An Inexpensive FM Receiver](#)

[FM Tuner](#)

[Inner Beauty of Basic Electronics](#)

[More Inner Beauty](#)

Note: Some links provided by Frank Schramm, WB2PYD

EDITORS NOTE

Just a reminder - if you would like to share information about your project - more than will fit in the RAG - we have a method!

For example:

- If you would like to share the code files for your project, include the files with your article - zipped up.
- If you would like to share a video of your project in operation - include a link to the video so we may download it

At the end of the article starting on page 11 "Sometimes" there are links to the code files for the project and a video of the project in operation.



Clicking this symbol will start the video.

FEBRUARY RAFFLE PRIZES

- ARRL 2023 Handbook
- How To Chase, Work and Confirm DX
 - MFJ-122RC Clock
 - Heil Sound T Shirt

Coming in March

- TBD

PUBLIC SERVICE REPORT

MIKE MOORE, KC2NM, PUBLIC SERVICE COORDINATOR

In the winter months we are in a quiet time following the completion of last season's public service events and the start of the public service event season for the coming year. In this public service update I'd like to focus on improving our ability to deliver communications capability and serve our community better. If we are called to serve in a real world emergency, there is an established command structure that we will want to fit into and follow. We would do well to improve our alignment of our practice in the public service events to this structure that is known as the Incident Command System or ICS.

ICS was developed in the 1970s by an interagency group in Southern California called FIRESCOPE. FIRESCOPE stood for Firefighting Resources of Southern California Organized for Potential Emergencies and they set out to develop two interrelated, yet independent, systems for managing wildland fire. Those two systems were the Multiagency Coordination System (MACS) Incident Command System (ICS). The ICS continued to develop by FEMA, the US Coast Guard, and the Department of Homeland Security following 9/11. ICS has proven not only useful for managing U.S. based incidents, but it has been implemented and adapted for use outside of the U.S. as well.

Governments, businesses, and other organizations are using the ICS for their activities and I would like to increase our use of the ICS in this year's events. We have used individual ICS forms for many events in the past such as the ICS-205 radio set up form but this is just a component of the ICS package. I plan to start with the planning activity leading up to the Tour de Cure. We saw an effective use of ICS in the Fairport Lift Bridge Regatta in a planning package prepared by Brian WM2W. He prepared that as part of his training progression for ARES and his package was distributed to participants for that event and it leaves a package of information to be passed on to the next year.

The ICS focuses on the roles and activities of Incident Commander, Safety, Operations, Logistics, Transportation, Communications, and Finance/Administration. Not every event will have all of these sections but the ICS has a framework established for each. A google search of "Incident Command System" will return a great many references from a diverse list of organizations. A good place to start would be at the link:

<https://training.fema.gov/emiweb/is/icsresource/trainingmaterials/>

This page describes a FEMA course ICS-100 that will give you a basic understanding of the ICS. I invite you to look at it.

Upcoming events in the public service calendar are listed in the following table. Visit https://rochesterham.org/public_service.htm for more information and to volunteer.

Please mark your calendars for our upcoming RARA Public Service Events

Event	Location	Day	Date
Tour de Cure	Xerox Campus Webster	Saturday	June 10, 2023
MS Roc the Ride	Lakeside Beach State Park	Saturday	August 12, 2023
Fairport Lift Bridge Regatta	Erie Canal – Fairport, NY	TBD	TBD
JOTA / Ham Radio Demonstration - CTC	Camp Cutler, Naples, NY	TBD	TBD
Pumpkin Patrol	Overpasses of the New York State Thruway	Monday and Tuesday	Oct. 30-31, 2023

JANUARY 2023 MEETING: END FED HALF WAVE ANTENNAS

TIM BARRETT, K9VB, RARA VICE PRESIDENT AND MEMBERSHIP SECRETARY

Somehow in January we always seem to pick a night of terrible weather and this year was no exception, it was dark, cold and raining! Personally if I was not one of the organizers I would have been tempted to turn back home, so I was very pleased to see a good turnout. We had over thirty people present in-house who braved the bad weather. Online there were 101 present so all in all it was a very well attended meeting.

One of the pleasures of being part of the RARA board is the opportunity to recognize those who make significant contributions to the club. Back in November we recognized Tim Guyot for his unstinting work as producer of our Hamfest. At our Jan meeting we recognized Forest Shick, WA2MZG for his work as Rag edi-



tor among other things and Dave Timmons for his organization of the ILLW event every year at the Charlotte Lighthouse. Congratulations to you both on winning the RARA Club Service Award for 2022!

We continued with our 2023 theme of a short mini-presentation during the first part of the meeting. This month Scott looked at how you can use a Tiny SA to tell if your Baofeng radio is free of spurious emissions (most likely not!)

Our main talk of the evening was by Bill Shanney, W6QR. Bill presented remotely from the west coast and his topic was the EFHW (End Fed Half Wave) antenna. As you can see from the picture, everybody paid good attention, nobody was checking their phone! Bill clearly knew his stuff and the best part of the presentation for many of us was the lively discussion that followed and Bill's helpful answers to questions. The board received a lot of positive feedback following the presentation. If you missed it, the slides are on the [RARA club meetings page](#) and hopefully we will also be able to put up a recording of the session shortly.

OUR WINTERFEST IS BACK ON FOR 2023!

TIM BARRETT, K9VB RARA VICE PRESIDENT

It seems a long time since our last Winterfest, and it is! I am very pleased to say that it is back and will be at our usual location, Stewart Lodge in Mendon Ponds Park on Saturday February 18th. We start set-up at 10am ready to get going around 11am. It's a great location, the cabin is heated and warm, the deck is a good place for antennas and there are trees to support wire antennas.



As usual we will have door prizes and lots of food. If you can, please bring a crockpot of something warm, we will award a prize for the best contribution! We are also inviting everyone to bring a dessert to share. Even if you don't have an opportunity to make something please come along anyway, the more the merrier. RARA will provide soft drinks and all the cups, plates, napkins and silverware needed.

We will have the club radio set up but feel free to bring your own gear. And if you are newly licensed radio amateur this is a great time to meet other hams and to get on the air yourself.

If you would like to help setting up then arrive around 10am otherwise we look forward to seeing you at 11 for food, friends and amateur radio!

HAMFEST 2023

TIM GUYOT, KB1POP HAMFEST PRODUCER

We're currently negotiating with two venues for the 2023 Rochester Hamfest. We're confident we'll have a location and are planning the event for June 3rd.

Thanks to Anand Choudri KC2KPG, we have an easy to follow procedure that includes all the steps to put on a great hamfest.

What we need now is a committee of 2-4 people to produce the event. We have committee members returning from last year, but we could use more help to spread the work. There are several steps to be taken between now and June 4th. **It is essential that we get started on some of these items within the month and we could really use your help!**

- Raffle and Prizes
- Publicity
- Exhibits
- Ticketing
- Parking
- Flea Market
- Facilities
- Food
- Talk-in
- Alternate Activities
- Exams

To be on the committee, you mostly need to be able to respond to e-mail, make a few phone calls, and attend about one committee meeting per month. If you're interested in being on the committee, e-mail hfproducer@rochesterham.org

ROCHESTER NY AREA REPEATER LISTING

One of the helpful reference items on the RARA website is the Rochester NY Area Repeater Listing. From the RARA home page go to: Learn - Useful Links - Quick Operating Reference - Local Information - Rochester NY Area Repeater Listing (PDF)

Repeaters come and go and we are requesting the help of the RARA membership to keep this document as accurate as possible. If you are aware of any changes to the currently posted list, please forward them to w2dst@arrl.net. Include a reference source (Repeater Book, website, etc.) to help with verification in the future.

THE BAILEY-SPROTT CHALLENGE

KARL HEINZ KREMER, K5KHK

What is it?

In 2021, two POTA hunters were able to hunt a park every single day of the year. These two hunters were Kenneth Bailey, N5HA and Julien Sprott, K9AV. I missed this in 2021 by a few days, some self-inflicted (travelling without a radio), and others were caused by park activators either not copying my call correctly, not logging my call correctly, or by not uploading the log to the POTA system. I have parks logged for those days in my own log. Vance Martin, N3VEM was digging in the POTA database, and found these two guys and their accomplishment. He then coined the term of “Bailey-Sprott Challenge”, and started to report about the progress of POTA activators and hunters in his monthly POTA update videos (since then, he has passed the responsibility for these update videos on to Mark Heere, N3NWV). Here is one of these POTA update videos, the information about the challenge is towards the end of the short video: <https://youtu.be/r1JahJMcVS4>

2022

For 2022, I planned to work on the challenge again, but this time, I needed a way to work my station remotely. For digital modes, that’s not too complicated, as long as you can “remote” into the computer, one can make FT8 contacts with a minimum amount of clicking. But, that was not what I had in mind. In addition to trying to work (at least) one POTA park a day, I was also renewing my pledge of having at least one CW contact per day. Ideally, that would be a POTA contact to keep things simple. That requires a bit more planning. I did start the year with something that worked, and refined the system throughout the year. It’s what I am calling remote operations McGuiver style with duct tape, bailing wire and a Swiss Army knife. I will describe this solution at a later time.

One would think that getting a park a day is not too hard. If you are home and near the shack, and the weather is great and you don’t have to pick up your antenna off the ground and put it back into the trees, and a lot of other things just fall into place, then of course, it’s not hard. But with a job, travelling, sometimes really bad propagation, and at other times nobody in parks when I had time to hunt, it all of a sudden gets a lot more complicated.

This year, it was not just the hunters who were trying to get a park a day, there were also a number of activators who tried to do the same by activating (at least) a park per day. At the end of the year, there were six of them still standing with at least one park activation per day of the year: James KE8PZN, Bill K4NYM, Del N2NWK, Kerri KB2WAV, Eric KD4MZM and Bob WC1N. Congratulations to all of them for this achievement.

To prevent what had happened last year, my goal was to get backup contacts – enough to make sure that I would get at least one official park contact logged in the POTA database. I’ve been doing this for a while, so I had a good idea of who the reliable loggers were, and as long as I had one of them in my log, I did not panic too much. Sometime during the year, the POTA program allowed acti-

vators to upload their own logs. This changed everything for me: All of a sudden, logs started to come in shortly after the activation was over, and I did not have to wait until the logs were submitted to the regional uploader, and that person then uploaded the logs into the database. I could stop worrying once I saw the first log show up in my POTA hunter log.

Busting Pileups

Some of the more prolific activators attract big pileups. My home station is running up to 50W output power, so no match for the legal limit crowd, but I got good at cracking the code for the different activators about how to get their attention – without being too obnoxious to my fellow hunters. For this to work, it’s good to have some “name recognition”. Those activators who knew my call would be much more likely to pull it out of the cacophony of calls than somebody who never heard it before. This is true for both phone and CW.

Working from Hotel Rooms and Other Remote Locations

We did quite a bit of travelling throughout the year, and the problem of course was how to work a park, especially one on CW from a hotel room. My remote station setup allowed me to send and receive audio, but had no mechanism for true remote CW. I managed to get my contacts by creating a few macros for the standard exchange (e.g. “K5KHK”, “TU UR”, “559”, “599” and “dit dit”). As long as I had a fairly stable Internet connection, I was able to make my contacts.

So, how did I do?

Days With Contacts

Mode	Days
CW	365
Phone	359
Data	335
All Modes	329

I had one confirmed CW contact into a park every single day of the year, phone contacts on 350 days and data contacts on 335 days out of the year. I managed to get a contact in all three modes on 329 days.

Who Did I Work the Most?

Here are the ten operators I work the most. Some of these contacts may be 2-fer POTA entities (or even 3 or 4-fers), where one contact counts for multiple parks. I hunted Del, N2NWK a number of times in Washington, DC when he was at a 4-fer. I do have Susan W2SBA in this list. All the contacts were Park 2 Park contacts when we were activating.

Call	Count
K4NYM	308
N2NWK	268
W2SBA	237
KE8PZN	182
KD4MZM	132
KD2UBJ	113
W2SUZ	87
N2MAK	80
KB3WAV	76
WB2SMK	59

Done!

This was hard work, and everybody involved in this committed the time and effort not because there was a big prize at the finish line. There is not even an award category for this achievement in POTA (at least of this writing), so we all did this just because we set a goal, and we stuck with it.

SOMETIMES

FOREST SHICK, WA2MZG

Sometimes:

- You are inquisitive – how do I use a graphic color display?
- You build to experiment – can I make an audio signal generator?
- You build to learn – how do I read data from a SD card?
- You build out of necessity – I need an RF signal generator!

Many times, I look at what is in my “junk” box and wonder what can I do with what I have acquired over the years. What can I share to encourage someone to try and “Build It” themselves. What can I try without spending hours soldering. The following are some of my ideas.

You will notice in the following projects, there is very little soldering. The soldering has been to add pins to the different modules – easy soldering.

All the components have been purchased from:

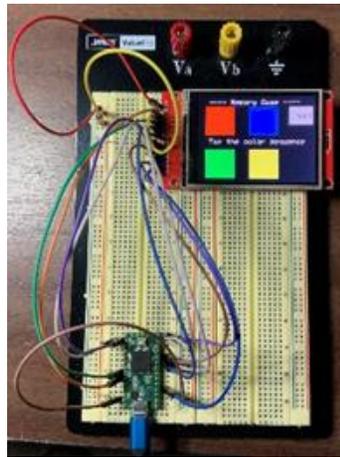
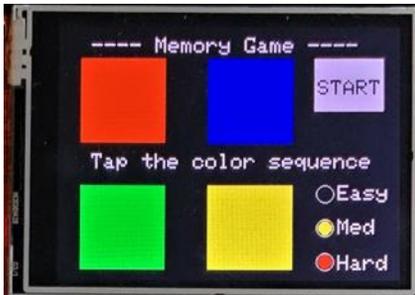
- PJRC
 - Teensy 3.2 (NOTE: Teensy 4.0 may be substituted)
 - <https://www.pjrc.com/store/teensy32.html>
 - <https://www.pjrc.com/store/teensy40.html>
 - Color Touch Screen
 - https://www.pjrc.com/store/display_ili9341_touch.html
 - Audio Adapter
 - https://www.pjrc.com/store/teensy3_audio.html
 - Pins and Sockets
 - https://www.pjrc.com/store/socket_24x1.html
 - https://www.pjrc.com/store/header_24x1.html
 - https://www.pjrc.com/store/header_14x1_d.html
- Amazon (similar to the following)
 - [Jumper wires](#)
- Ebay (similar to the following)
 - [AD9850](#)
- Jameco (similar to the following)
 - [Solderless Breadboard](#)

Software Tool:

- Arduino IDE (Integrated Development Environment)
 - <https://www.arduino.cc/en/software>
- TeensyDuino – add on software for the Arduino IDE
 - <https://www.pjrc.com/arduino-ide-2-0-0-teensy-support/>
- Teensy Audio Library and Tool
 - https://www.pjrc.com/teensy/td_libs_Audio.html
 - <https://www.pjrc.com/teensy/gui/index.html>

Sometimes You Are Inquisitive

I was interested in learning to use a color, graphic, touchscreen display in my projects. I built a simple project using a Teensy 3.2 and display as shown in the pictures. This project has been discussed in the July and August 2020 RARA RAG.



Sometimes You Build To Experiment

Maybe I should make an audio function generator. I wonder what I can do with the audio adapter from PJRC?

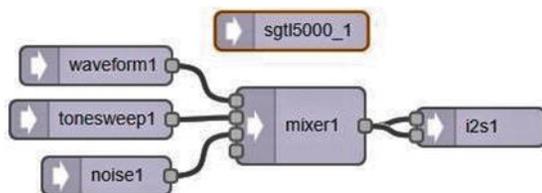
I added the PJRC Audio Adapter on top of the Teensy 3.2. You can read the details of the adapter at the link I provided above. Be careful you must purchase the correct version of the adapter.



You can easily give this a try. Just purchase the Teensy 3.2 or 4.0, the appropriate Audio Adapter and the stacking connectors – see the PJRC links. You do not have to add a display to give this a try. You don't even need a scope. Just plug headphones into the jack and listen to your results.



I used the PJRC audio design tool to create a software audio function generator.



This simple drawing and the 2 small boards in the picture are all it takes to make a simple audio function generator: sine, square, triangle, and sawtooth. The tonesweep function enables sweeping the waveform over a range of frequencies and then the noise source – why not?!

Audio System Design Tool

The design tool provides many symbols for signal input, output, processing, synthesis, effects, etc. You simply drag the symbol into the drawing area. When you have your program schematic complete you click the Export button and the necessary software is created.

```
#include <Audio.h>
#include <Wire.h>
#include <SPI.h>
#include <SD.h>
#include <SerialFlash.h>
```

```
// GUItool: begin automatically generated code
AudioSynthToneSweep tonesweep1; //xy=247,211
AudioSynthWaveform waveform1; //xy=251,169
AudioSynthNoiseWhite noise1; //xy=259,255
AudioMixer4 mixer1; //xy=410,216
AudioOutputI2S i2s1; //xy=550,217
AudioConnection patchCord1(tonesweep1, 0, mixer1, 1);
AudioConnection patchCord2(waveform1, 0, mixer1, 0);
AudioConnection patchCord3(noise1, 0, mixer1, 2);
AudioConnection patchCord4(mixer1, 0, i2s1, 0);
AudioConnection patchCord5(mixer1, 0, i2s1, 1);
AudioControlSGTL5000 sgtl5000_1; //xy=403,142
// GUItool: end automatically generated code
```

You then add this to your Teensyduino sketch.

Most symbols have functions associated with them. The Waveform symbol has functions to start a waveform (sine, triangle, square, etc), set the level, set the frequency and more. For example:
waveform1.begin(gain, audvfo, WAVEFORM_SINE);



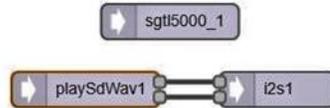
Here is a simple video overview of the Audio System Design Tool
https://www.rochesterham.org/documents/rararags/2023-02%20Assets/2023-02_B.htm

Sometimes You Build To Learn

Since there was an SD card socket on the audio board, why not learn how to read files from an SD card. How about making this interesting – how do I play music (.wav) files. The Audio System Design Tool has a simple approach.



All it takes is this simple drawing to create the player. Of course, you must add code for reading the SD card and sending the file to the player.

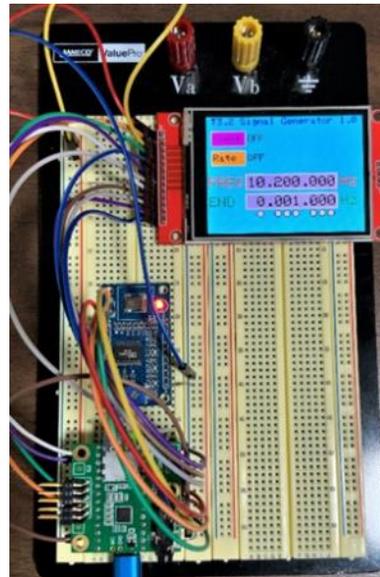


With 3 modules (display, Teensy3.2 and audio adapter), 14 jumper wires, a USB cable, a solderless breadboard and soldering a few connectors you have a Memory Game, an Audio Function Generator and a WAV Player.

Sometimes You Build Out Of Necessity

Looking forward, my next project might be a Software Defined Receiver. I would need the audio function generator for testing the audio circuits, but I would also need an RF Signal Generator for testing the radio.

Add an AD9850 and you have a 40MHz RF signal generator.



Truth be told – this all requires writing C code, debugging the code, experimenting, learning, schematic drawing, patience, and time. Very little soldering!

I have provided my Teensyduino sketches (code) at the following links, no guarantees:

- [Memory Teaser](#)
- [Audio Function Generator](#)
- [WAV Player](#)
- [RF Signal Generator](#)

I have also included a program to calibrate the touchscreen.

- [Touchscreen Calibration](#)



The following link provides a video of the projects:

http://www.rochesterham.org/documents/rararags/2023-02%20Assets/2023-02_A.htm

Building your idea on a solderless breadboard and expecting great signal quality is wishful thinking. BUT – you are able to simply prove out your idea and decide if you should move on to building a better-quality version of your idea.

Well, it was fun getting this far. The ideas work very nicely but as you might expect, they have issues. The signals are noisy. The projects are not durable.

Time to hardwire (solder) them into individual “products”. Add a housing, a battery, connectors for output signals.

Don’t take your breadboard apart. It is the starting point for whatever your next idea is.

Sometimes You Have Fun!

Additional features you may want to consider:

- Amplifiers for the signal generators
- 50 ohm attenuators for the rf signal generator
- Stereo amplifier for the WAV player
- QSO Memory – record and play various phrases such as
 - CQ CQ CQ this is WA2MZG
 - Rig here is a KX3 and KXPA100

Final Note

I purchased a cell phone battery at Walmart for about \$10 and it will power these projects. Simply plug the battery into the USB C connector on the Teensy.

RAGS OF THE PAST

ED GABLE, K2MP, RARA HISTORIAN

20 Years Ago, February 2003

The next RARA meeting was revealed here as we were told to come see and hear RIT teacher Jon Arney WB3LHI, with a program he titled "ATV on a Blimp." Jon went on to explain how members of the RIT Amateur Radio Club, K2GXT, are leading an effort to develop ATV and other image and data transmission systems for Amateur Radio. Part of that early RIT group was a long time RARA supporter Jim Stefano W2COP, working with K2GXT's President Jason Farnung K2WLW. Writing for the always busy RARA Public Service volunteers was Keith Freeberg (sk) N2BEL, who told of planned activities already firm for 2003, as: The Ontario Shore Marathon to benefit the Arthritis Foundation in May, featuring a full 26.2 mile run. The Tour De Cure, a bicycle tour, for the American Diabetes Association in June. The American Diabetes Association has two events in 2003, the second being the "America's Walk for Diabetes, starting in Cobbs Hill Park, in September. Peter Fournia W2SKY, wrote a very entertaining and informative article telling of the results from "Kids Day" sponsored by the Xerox Amateur Radio Club. One of the day's activities saw participants chatting over ham radio, using HF radio, Echolink and repeaters with a half a dozen or so stations scattered far and wide. Xerox volunteers included Brian K2AS, Bob K2OID, Ned KC2FLM, Jon N2JAC and Peter W2SKY. A published photo of the event showed happy kids in front of equipment at the Xerox ARC station W2XRX. It was a pleasure to see a closing article from Ray Pickens (sk) WA2MYG, who, after just completing his first year as Director of the RARA Licensing Classes, wrote a very nice column detailing the success of this session, including an interesting tale that revealed one of the instructors actually upgraded with his class. Ray went on to thank his cadre' of instructors: Keven WB2QMY teaching CW, Allen N2VY, Technician Theory, Ron N2TLX, General Theory and Carl NU2N, Extra Class theory. At this time RARA was designated an ARRL Special Service Club that authorized RARA to offer members in-house services normally only available through ARRL Headquarters personnel. One of those services was to have ARRL awards such as WAS, VUCC, DXCC and others, initially approved locally. This issue had an article describing a method where, for example, your QSL cards for a Worked All States (WAS) award could be checked by an ARRL approved local Card Checker. This eliminated the need to pack and ship your precious QSL cards to Newington. That Card Checker was announced as Ed Gable, K2MP. A side note reveals that Ed has been in that position since 1986, and is still active today after serving the Amateur community in that position for 36 years. Another contributor to this issue was Dick Goslee (sk) K2VCZ, RARA Treasurer, who wrote to describe the RARA Memorial Scholarship Award. The program, generated by RARA after generous financial donations by Bill Buchan W2OMV, Lee Zwack W2WPF and Bill Resch K4VOS, awards a scholarship to any New York State resident who is also a member of RARA. With regret it was announced that Josephine Keltz W2WOW and Leo Halpin W2KSW, had both become silent keys. There were no new Want Ads in this issue, but Finger Lakes Repair Service of Victor, NY, remained a relatively new operation offering repair service for Amateur, two-way radio, Marine radio, CB and more.



the RARA RAG

Published by
ROCHESTER AMATEUR RADIO ASSOCIATION, INC.

VOL. 55

FEBRUARY 2003

NO.6

ATV ON A BLIMP

Jon Arney, WB3LHI

Amateur radio is flying high at the Rochester Institute of Technology these days. The campus amateur radio club, K2GXT, has been operating real-time ATV onboard radio controlled model aircraft and a blimp. This has evolved into an ambitious senior design project by a group of engineering students. Recently the group is involved in developing a 10 ft. model airplane to carry ATV, GPS, using a packet radio transmitter.

ATV on a blimp!!! Ever wanted to pilot a blimp and race the zamboni at a hockey game? K2GXT does it regularly, and efforts are underway to retransmit the live video to a remote location on campus via ATV.

Members of the RIT amateur radio club, Jason Farnung, K2WLK, and Jim Stefano, W2COP, are leading an effort to develop ATV, and other image and data oriented systems for K2GXT. Jason is club president and Jim is a staff member with the Electoral Engineering department They, and other members of the RIT club, will attend the RaRa meeting, on February 7th, to give a show-n-tell update of K2GXT activities and to show images from the airplane and blimp.

RaRa MEETING

February 7, 2003

8:00 PM

HENRIETTA FIRE HALL
3129 E. HENRIETTA RD.

ATV ON A BLIMP

PRESENTED BY
Jon Arney WB3LHI

PUBLIC SERVICE

Keith Freeberg N2BEL

Ontario Shore Marathon - an event to benefit the Arthritis Foundation
Date: Saturday, May 3, 2003

Location: Starting and ending at Hamlin Beach State Park

Description: Runners (individuals and relay teams) challenge themselves to Achieve their personal best time for either a full (26.2 mile) or half (13.1

Mile) Marathon. The first runners will start from Hamlin Beach State Park at 8:30 A.M. All radio volunteers will need to be on their assigned location Prior to start time.

Tour De Cure - A bicycle tour sponsored by the American Diabetes Association
Date: Saturday, June 8, 2003

Location: Starting and ending at Hamlin Beach State Park

Description: Bicyclists tour scenic Western New York Roadways on one of the Well marked tour course. There are five pre-defined distances for riders to Chose from to challenge their riding skills or simply enjoy a scenic ride.

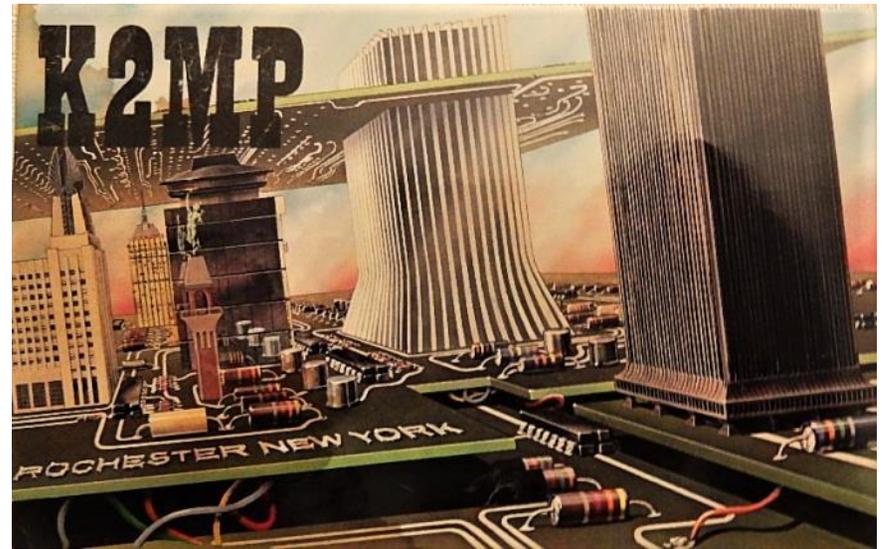
Ride distances include; 10, 25, 40, 62.5, 100mile courses and, new this Year, a special 'Inside the Park Only' Parent-Child Ride for families not Quite ready for the longer routes. Each route requires several operators. The first bicyclists will start from Hamlin Beach State Park at 8:30 A.M. All radio volunteers will need to be on their assigned location prior to Start time. This is a fun event for those new to Amateur Radio as complete Training is given to help each operator know exactly what to do and Communicate about any given situation.

Breakfast, lunch and dinner are provided for amateur radio operators Participating in day of event activities.

CONTINUED ON PAGE 3

40 Years Ago, February 1983

The monthly RARA meeting for this date was an interesting one, on the technical side and was typical of the good programming RARA has become known for. Our guest speaker was Tom Wise, with RF Communications, now L3Harris, speaking on the many different forms of SSB modulation. Tom then threw in a side line topic describing AM stereo radios coming soon to an automobile near you. Covering a large portion of the front page was an invitation to attend this year's Valentine Dinner Party held at the Hilton Inn-on-the-Campus. Tickets available from Don Drennon (sk) W2EBF, Alan Komenski (sk) AC2K and Jim O'Brien K2UDP. This was an unusual RARA Rag as it was delivered by Air-Mail. The story is Rag Editor Ron Jakubowski K2RJ, was vacationing in Erie, PA and while there putting the Rag to bed. Ron discovered he was out of time to mail the Rag from PA and have it delivered on time. Ron called in a favor from his friend Gordon Bass K2UIR, a private pilot, who flew down, picked up the Rags, flew back and dumped 'em into the Rochester Post Office. It turned out that very issue of the RARA Rag was awarded newsletter of the month by 73 Magazine. A very timely letter was also concurrently received from ARRL President Vic Clark W4KFC. Vic personally wrote to say how much he enjoyed receiving complimentary copies of the Rag and closed with "It is certainly one of the most professional among the club bulletins I receive.." Completing an almost two-year project was Jim O'Brien K2UDP, who worked with RIT graphic arts students to generate a stunning full color cover for a new RARA member QSL card. The artwork revealed a back ground of down town Rochester with roadways, vehicles and other subjects depicted as electrical components. RARA members could order 1000 QSL cards for \$25.00, but callsign printing was up to the buyer. Irv Goodman AF2K, running a hobby style print shop in his Webster home, printed thousands of these cards, including mine, for many local hams. Dave Rubin N3CKH, one of the movers and shakers involved with the formation of a new ham station within the Jewish Community Center building, announced the station's guest speaker at the opening ceremony would be Jim Taylor from our district FCC Office in Buffalo, NY. It is always a pleasure to see an article written by RARA Historian and co-founder of the Antique Wireless Association, Bruce Kelley W2ICE. This time Bruce wrote on the topic of early local radio stores in Rochester such as: Beucaire's on Lawrence Street, Rudolf Schmidt at East Avenue, Hickson Electric (founder WHEC) and E.C. Sykes on Front Street. Note: E.C. Sykes was the Grandfather of Steve Sykes, KD2OM, noted locally as a world traveling installer, marketing and maintenance go-to guy for Harris/RF Communications. Also noteworthy is that Steve served under three AWA Museum Curators: The first being Bruce Kelley W2ICE, the 2nd was Ed Gable K2MP and now retired from Harris under Lynn Bisha W2BSN. Speaking for the Rochester Radio Repeater Association (RRRA) at their February meeting was Ed Neubauer N2BXA, from Sykes Datatronics. Ed's subject was on the concept of a PC in every home by 1985. The Rochester VHF Group was also heard from with Tom Richmond WB2IEY (now WB2IEY/VE3) who announced a new two-meter beacon emitting on 144.051 Mcs. With regret it was announced that Frank Cona W2WPY, became a silent key. From the Want Ads you could buy a Kenwood TS-520 from Pat Hoke W2DN. A long term commercial advertiser was Radio World, located at the Oneida County Airport in Oriskany, featuring Kenwood, Yaesu, ICOM and Drake amateur equipment.



The RARA RAG
Published by
The Rochester Amateur Radio Association
INCORPORATED

VOL. 35 FEBRUARY 1983 NO. 6

COME TO THE VALENTINE DINNER PARTY!

Get your tickets now for the *best yet* RaRa Valentine Dinner Party to be held at the Hilton Inn On-the-Campus *Packet Room*, 175 Jefferson Road on February 12th. The cost for a full-course sit-down dinner with appetizer, salad, dessert, and a carafe of wine for each table is a paltry sum of \$15.00 per person. This price also includes a flower corsage for the ladies and first class entertainment by Ralph Zwald and his Banjo Group. For those so inclined, dancing will also be available in the Hotel lounge. The cash bar will open at 6:30 p.m., and dinner will be served promptly at 7:30.

Dinner selections are *roast beef, London broil, and baked chicken*. Tickets are available from Don Drennam, W2EBF (671-3366); Alan Komenski, AC2K (248-8286); and Jim O'Brien, K2UDP (244-9905). They will also be available at this month's RaRa meeting.

Our three ticket-sellers have a friendly wager going among them. Whoever sells the most tickets will be treated to dinners by the other two. To make things even more interesting, Jim O'Brien is offering to give a pair of English China coasters with etchings of Rochester scenes on them for each pair of tickets he sells! (Wonder where he got those from!)

So as the competition is heating up, time is running out to get your tickets and treat your YL or OM to one of the most fun evenings of the year for this special Valentine treat. Hope to see everybody there.

ELMIRA MINI-HAMFEST: FEBRUARY 26th
The Rookie Repeater Group is sponsoring a mini-hamfest at the Elmira Armory on February 26th. The Armory is located off Route 17 on Colonial Drive (south of the Mall exit on Route 17).
Hours are from 9 to 4 and admission is \$2.00. Bring your goodies!
W4ZFM

NOTICE: If any members who ordered the L.E.R.C. Calendar mentioned in our October issue have experienced a delay in its receipt, please write directly to the club (L.E.R.C.) address, for a replacement.

SILENT KEY
Frank Cona, W2WPY, of Webster, NY

IN LOVING MEMORY OF
OUR BELOVED DEPARTED
SILENT KEYS
KB2KZ

RARA CALENDAR

TIM BARRETT, K9VB, MEMBERSHIP SECRETARY

February 2023						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 RaRa Monthly Mtg BSA & ONLINE 7pm ROC City Net ~3.830 MHz, 7p A1 Club AWT CWOps Test VHF/UHF FT8 Activity Contest Mini Test 40, 80 Walk for the Bacon Contest UKEICC 80m Contest	2 RARA BoD Mtg 6:30pm ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.205 USB NRAU 10m Activity Contest NCCC Sprints SKCC Sprints Europe QRP Fox Hunt	3 K1USN Slow Speed Test	4 ROC City Net 28.405 MHz, 9:00p VT, BC, MN QSO Parties 10-10 Int Winter Contest SSB EurAsia HF Championship F9AA Cup, CW EU DX Contest Mexico RTTY Contest NA Sprint, CW FYBO Winter QRP Sprint AGCW Straight Key Party
5 VT, BC QSO Parties 10-10 Int Winter Contest SSB F9AA Cup, CW EU DX Contest Mexico RTTY Contest NA Sprint, CW FYBO Winter QRP Sprint K1USN Slow Speed Test	6 AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB ICWC Medium Speed Test OK1WC Memorial WW Sideband Activity Contest ARS Spartan Sprint RSGB 80M Club Contest, SSB	7 RTTYOPS Weeksprint QRP Foxhunt Phone Weekly Test – Fray NAQCC CW Sprint	8 ROC City Net ~3.830 MHz, 7p A1 Club AWT CWOps Test VHF/UHF FT8 Activity Contest Mini Test 40, 80	9 ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.205 USB NCCC Sprints EACW Meeting QRP Foxhunt	10 K1USN Slow Speed Test	11 ROC City Net 28.405 MHz, 9:00p CQ WW RTTY WPX Contest SARL Field Day Asia-Pacific Sprint, CW Dutch PACC Contest SKCC Sprintathon KCJ Topband Contest OMISS QSO Party YLRL YL-OM Contest RSGB Topband Contest
12 SARL Field Day Dutch PACC Contest SKCC Sprintathon KCJ Topband Contest OMISS QSO Party YLRL YL-OM Contest Balkan HF Contest CQC Winter QSO Party	13 AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB ARRL School Club Roundup ICWC Medium Speed Test OK1WC Memorial WW Sideband Activity Contest	14 ARRL School Club Roundup RTTYOPS Weeksprint QRP Foxhunt Phone Weekly Test – Fray NAQCC CW Sprint PODXS 070 Valentine Sprint	15 ROC City Net ~3.830 MHz, 7p ARRL School Club Roundup A1 Club AWT CWOps Test VHF/UHF FT8 Activity Contest Mini Test 40, 80 Walk for the Bacon Contest RSGB 80M Club Contest, Data	16 ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.205 USB ARRL School Club Roundup Walk for the Bacon Contest NCCC Sprints EACW Meeting QRP Foxhunt	17 K1USN Slow Speed Test ARRL School Club Roundup	18 ROC City Net 28.405 MHz, 9:00p ARRL Int DX Contest, CW Feld Hell Sprint
19 ARRL Int DX Contest, CW Run for the bacon QRP Contest FISTS Sunday Sprint	20 AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB ICWC Medium Speed Test OK1WC Memorial WW Sideband Activity Contest	21 SKCC Sprint QRP Foxhunt	22 ROC City Net ~3.830 MHz, 7p A1 Club AWT CWOps Test VHF/UHF FT8 Activity Contest Mini Test 40, 80 UKEICC 80m Contest	23 ARES Net 146.610 MHz, 7pm VHF Group 9pm 50.205 USB NCCC Sprints EACW Meeting QRP Foxhunt RSGB 80M Club Contest, CW	24 K1USN Slow Speed Test	25 ROC City Net 28.405 MHz, 9:00p CQ 160M Contest, SSB REF Contest, SSB FTn DX Contest UBA DX Contest, CW NC, SC QSO Parties NA QSO Party, RTTY
26 CQ 160M Contest, SSB REF Contest, SSB FTn DX Contest UBA DX Contest, CW NC, SC QSO Parties NA QSO Party, RTTY High Speed Club CW Contest	27 AWA Net 145.110 MHz, 7pm VHF Group 9pm 144.260 SSB CWC Medium Speed Test OK1WC Memorial WW Sideband Activity Contest	28 QRP Foxhunt Phone Weekly Test – Fray				

VE TEAM

Testing takes place on the 3rd Saturday September - April

Dates for 2023: 2/18, 3/18, 4/15

Testing Location

RIT
Rochester Institute of Technology
Building 16 -Schmitt Interfaith Center
43.08402626755475, -77.6734520379509

- Easiest path is from Parking Lot D it can be accessed from West Jefferson Rd via Andrews Memorial Dr or Lowenthal Rd
- From parking lot D walk south up the ramp to the Schmitt Interfaith Center.
- Once inside there is an elevator over to your left or stairs in front of you. Go to the first floor and you will find the Skalny room.

Please Note: this room cannot be accessed from the door under the bridge.

Pre-registration is required visit:

<https://hamstudy.org/sessions/14612/inperson> to find the latest session.

More information is available on the RARA website:

https://rochesterham.org/license_testing.htm

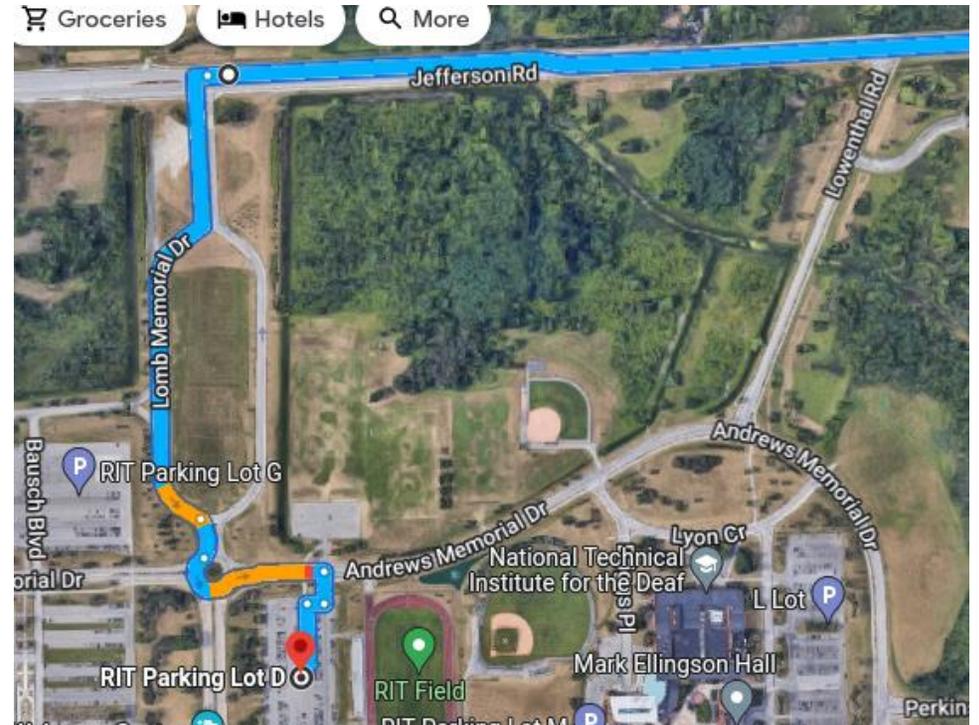
Applicants must supply their own pen, pencil, calculator

Testing begins at 10:00AM.

Also Note: The exam is free however the FCC now charges \$35 for applications. This fee is NOT paid to the VE team. It is paid directly to the FCC. You will receive an email from the FCC when your application is processed. We will also have an information sheet available

Raymond Clark	E	
---------------	---	--

New licensees' names are in **BOLD**



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 MHz (+) 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 snowstorms, 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
George Adams IV, Net Control - cq@k4gwa.net

ROCHESTER DX ASSOCIATION, RDXA

The next meeting will be Tuesday 21 February, 2023 at Johnny's.

The topic will be Beverage antennas, practical application" (and real world results).

Bill (K2TER), John (AC2RL) & Chis (K2CS) will discuss several different receive antenna configurations.

February meeting is **IN Person ONLY**.

Please check our website www.rdxa.com for up-to-date information regarding meeting locations and requirements, if any.



ROCHESTER RADIO REPEATER ASSOCIATION

Stay tuned to our web site www.k2rra.org for current information.

XRX AMATEUR RADIO CLUB

The XRX Amateur Radio Club meets the second Thursday of the month (except July and August). 7PM at the Webster Recreation Center. Zoom meeting info, when available, is sent out to our mailing list. How to subscribe and up-to-date information is always on our website at <http://xarc.us> We have a System Fusion repeater south of the city on 145.290, and another on 444.825 west of the city that is also D-Star capable. Both are also analog capable with 110.9Hz tone. All are welcome.

AMATEUR RADIO ASSOCIATION OF THE SOUTHERN TIER, ARAST

ARAST meets the third Thursday of every month at the Emergency Communications Center on Harris Hill in Big Flats, next to the National Soaring Museum. Our Chemung County ARES (CCARES) organization meets the first Tuesday of the month except February at the same location. 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 now being held both in person and online. Check out the Upcoming Events at our website, www.arast.info, for the latest details.

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. We would welcome participation from RARA members.

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!

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/>

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.

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 50.205 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.

KEUKA LAKE AMATEUR RADIO ASSOCIATION, KLARA

We have been working on the Ground Hog Hamfest Feb 4th in Almond. Attached is the flyer for it. Hope to see you there!

Joel has been working on the Simplex Challenge! Date is set for May 6, 2023 to run from noon till 4pm. Be watching for the information on our webpage and I will be posting it on here also. This year will be 2 meter and 6 meter! So exciting so please plan to join in this event!

March meeting will be March 8, 2023 at the Civil Defense Training Center with Pot Luck at 6pm so bring something yummy to share, table service and beverage but we supply coffee.

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.

SKENOH ISLAND AMATEUR RADIO CLUB, SIARC

The Skenoh Island Amateur Radio Club 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 next meeting will be February 08th, at 7:30PM. There will not be exam testing.

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.

Groundhog Hamfest

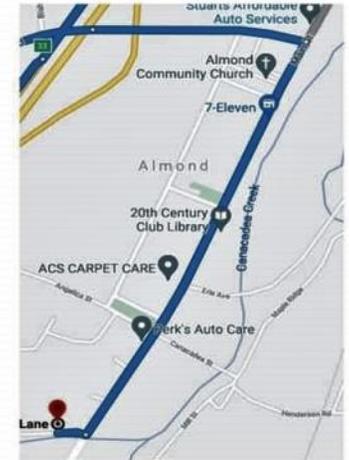
Sponsored by W2RMT, N1PTB, KD2BPI, and The Keuka Lake Amateur Radio Association

When: February 4, 2023
Where: Almond Community Building
1 Marvin Lane, Almond, NY 14804
Time: General Public – 8:00 AM
Vendor Setup – 6:00
Cost: \$0 - Free to Vendors and public

Directions:
Take Exit 33 off Rout 86.
Follow signs towards Alfred, NY.
Approximately 1 mile from exit on right

Additional information:

- VE Testing @ 10:00. Preregistration requested.
 - Contact Gary Stratton for details (585) 520-5514
- Tables, chairs, and power (outside walls) available at no charge
 - First come first served.
- Coffee for sure and maybe breakfast sandwiches.



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. |

RARA OFFICERS, DIRECTORS AND COORDINATORS

OFFICERS

President: Scott Theis, W2LW	(845) 774-9809	president@rochesterham.org	Treasurer: Mike Moore, KC2NM	(585) 721-0011	treasurer@rochesterham.org
Vice-President: Tim Barrett, K9VB	(646)496-5015	vicepresident@rochesterham.org	Secretary: Brian O'Connor, KA2CGB	(585) 721-2346	secretary@rochesterham.org

DIRECTORS

Richard Bishopp, KD2UBJ	(585) 766-5631	rbishopp44@gmail.com	Karl Heinz Kremer, K5KHK	(585) 210-0840	k5khk@khk.net
Tim Guyot, KB1POP	(585) 406-3163	timguyot@gmail.com	Dave Wilson, WA2HOY	(585) 200-4447	davidrw@rochester.rr.com
Mike Kennerknecht, N2MAK	(585) 754-2444	maken-nerknecht@gmail.com			

ACTIVITY COORDINATORS

Club Historian	Ed Gable, K2MP	egable@rochester.rr.com	Online Meetings	Scott Theis, W2LW	sa_theis@hotmail.com
Club Station Trustee	Dave Enright, K3WHD	denright1228@gmail.com	Public Service	Mike Moore, KC2NM	publicservice@rochesterham.org
Education Coordinator	Karl Heinz Kremer, K5KHK	education@rochesterham.org	QSL MANAGER	Dave Enright, K3WHD	denright1228@gmail.com
Elmers' Corner	Richard Bishopp, KD2UBJ Suzanne Bishopp, W2SUZ	elmerscorner@education.org	Raffle Administrators	Forest Shick, WA2MZG Jeff Sonstein, WA2RRB	wa2mzg@arrl.net
Groups.io Moderators	Tim Barrett, K9VB Karl Heinz Kremer, K5KHK	tim.k9vb@gmail.com k5khk@khk.net	RARA Academy	Kevin Denton, KD2WXS	academy@rochesterham.org
Hamfest Co-Producers	Tim Guyot, KB1POP Mike Moore, KC2NM Dave Mitchell, KD2RAF	hfproducer@rochesterham.org	RARA RAG Editors	Forest Shick, WA2MZG Mike Kennerknecht, N2MAK	editor@rochesterham.org
License Testing Coordinator	Don Kiser, AC2EV	dkiser100@gmail.com	Proof Readers	Susan Aiello, W2SBA Dave Wilson, WA2HOY Mark Pedersen, KC2UES	
Media Communications	Tim Guyot, KB1POP	timguyot@gmail.com	Refreshments	Rich Hoffarth, K2AXP	rhoffarth2000@yahoo.com
Meeting Audio	Joe DiVincenzo, AD2DB Scott Czeck, KC1GHT	joedy58@gmail.com scottczeck@gmail.com	Reward Points Administrator	Tim Barrett, K9VB	membership@rochesterham.org
Membership Secretary	Tim Barrett, K9VB	membership@rochesterham.org	Telephone Hotline	Scott Theis, W2LW	sa_theis@hotmail.com
			Webmaster	Scott Theis, W2LW	webmaster@rochesterham.org

ROCHESTER AREA RADIO CLUB CONTACTS

Amateur Radio Association of the Southern Tier (ARAST)

Reiner Dieg, N2PEZ: n2pez@arrl.net

Antique Wireless Association (AWA)

Lynn Bisha, W2BSN: lynnbisha@gmail.com

Astronomy Section Rochester Academy of Science

Mark Minarich: mminaric@rochester.rr.com

Community Amateur Radio Club (CARC)

Joe Gangi, AC2NB: ac2nb.carc@gmail.com

Digital Communications Association of Perinton (DCAP)

Gary Skuse, KA1NJL: ka1njl@arrl.net

Drumlins Amateur Radio Club Ltd. (DARC)

drumlinsarc@gmail.com

Genesee Valley Amateur Radio Assn.

Bill Boyd, N3DSP: N3DSP@lafireline.net

Keuka Lake Amateur Radio Association (KLARA)

Jim Caneen, W2JTC: jcpilot@localnet.com

Monroe County ARES / RACES

Iain Marcuson, KC2NLD: secretary@monroecountyemcomm.org

Orleans County Amateur Radio Club (OCARC)

Terry Cook, K2EYS: k2eys@ocarc.us

Rochester Amateur Radio Association (RARA)

Tim Barrett, K9VB: president@rochesterham.org

ROC City Net

Joe Merolillo, K2ZX: k2zx52@gmail.com

Rochester DX Association (RDXA)

Chris Shalvoy, K2CS: cshalvoy@att.net

Rochester Institute of Technology ARC

Jim Stefano, W2COP: wireless@mail.rit.edu

Rochester Radio Repeater Association (RRRA)

Bob Shewell, N2HJD: bshewell@frontiernet.net

Rochester VHF Group (RVHFG)

Rus Healy, K2UA: chairman@rvhfg.org

Skenoh Island Amateur Radio Club (SIARC)

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

West Side Amateur Radio Club

XRX Amateur Radio Club

Brian Donovan, K2AS: k2as@outlook.com

Rochester Makerspace

David Duckles: rocmakers@gmail.com

MARCH RAG DEADLINE FEBRUARY 15, 2023

RARA MEETS AT 7PM ON THE FIRST
WEDNESDAY OF EACH MONTH.

JOIN US IN PERSON
OR
ONLINE AT:

<https://attendee.gotowebinar.com/register/2200203460045456475>

CONTACT WEBMASTER@ROCHESTERHAM.ORG FOR SUPPORT

Rochester Area Repeater Listing *THE RARA RAG*

Published by
Rochester Amateur Radio Association, Inc.
P.O. Box 93333, Rochester, NY, 14692-8333
Hotline – (585) 210- 8910
Website – <http://www.rochesterham.org>