



THE RARA RAG

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

OCTOBER 2020
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To Be Announced ONLINE MEETING AND PRESENTATION

BRIAN O'CONNOR, KA2CGB, RARA VICE PRESIDENT

Because amateur radio permits operation on so many bands and modes, RARA members have a broad range of interests, skills and experience. For most of us, the action is ultimately on-the-air – from casual chats to chasing DX or serious contesting. Some also like making – from tinkering, equipment mods and repairs, to building your own equipment. Others may be fascinated with understanding how things work, taking a 'deep dive' into subjects like antennas, propagation, circuits or software.

I want to challenge each member to identify what aspect(s) of amateur radio interests you the most. We need just a few members to come forward as a presenter for one of our monthly meetings. Share your knowledge and enthusiasm! Give me a call or send an email with a quick 'pitch' describing your topic.

At the time of this writing, the presentation for this month's meeting has not been confirmed. But there are several irons in the fire.

Please join us for our monthly membership meeting on Wednesday, 7 October at 7:00PM ET. We will review area Ham news, discuss the upcoming New York QSO Party (NYQP), and have an informative presentation. Details on the presentation will be announced on the RARA website.

To register for the meeting, please go to the following link:
<https://attendee.gotowebinar.com/register/7655283047766453259>

Please arrive a little early to ensure you are completely set up. See you then!



BOARDZ BUZZ

TIM BARRETT, K9VB, RARA PRESIDENT

Thanks!

First, I would like to start with some thanks. Thanks everybody for entrusting me with the role of president, I look forward to this new role for me. Thanks also to Forest Shick, WA2MZG and the Nominating Committee for their organizing of the election process. A special thanks to our outgoing president, Tim Guyot, KB1POP for his stewardship of the club for the last two years. He sets a high standard for me to follow. I'd also like to thank the board for being a great team to collaborate with and for all the work they have put in over the past year. We are sorry to see Don Kiser, AC2EV will not be on the board but he will continue his valuable work with the licensing process, made much more difficult with the current pandemic, of course. Finally, Don is replaced on the board by Don Valone KD2REU (we are very conservative about names!) and I welcome him and look forward to his contribution.

Moving Forward

As we start the new RARA year, it is difficult to see how the Covid pandemic will work out and that makes it difficult for us to plan ahead. The operating events and social events (Winterfest, summer picnic, Park on-the-air sessions are on hold and of course public service events are currently mostly canceled. But one of the great successes in the past year has been our transition to online meetings. In the coming year we will continue our on-line presence:

- The website www.rochesterham.org is a valuable source of up to date information about the club, local ham radio news and issues of interest, thanks to the excellent work of our webmaster, Scott Theis
- Our Monthly meetings online with interesting speakers from the club and from the wider ham radio community
- Academy sessions that dig deeply into a specific radio topic – these are great for newbies and experts alike so give one a try if you haven't done so already

We are also looking for other ideas of how we can work together while there is still some element of lockdown in place, so if you have any ideas, speak up!

On Air Reporting

On the subject of new ideas, I'd like to introduce a focus on operating activity to our club reports. I would like to introduce reporting of stations worked, DX heard, propagation conditions, either as a segment at the start of our meetings or as a regular article in the RAG or both. I'm not looking for exotic DX achievements (although those would be interesting to hear about) but just what has been heard and worked on the bands over the last month. If you have any thoughts or think you could coordinate this activity please email me at president@Rochesterham.org.

Supporting Club Activities

Looking at the list of things that the club does, even during Covid, it is a long and impressive list. A big part of setting up any activity is finding volunteers. To simplify that we are looking at creating a directory of people who can help with specific tasks. This could be an active task such as being available to help put up antennas, or technical e.g. being able to do presentations, academies etc. or general such as helping with occasional tasks such as mailing membership cards, checking the web page for required updates. If you think you can help please get in touch!

Membership

There is an article further down about membership, if you are not a member or your membership has lapsed, please read it and consider renewing / joining. Your membership matters to us, the more members we have, the stronger we are as a club!

Finally, it's your club – let us know how we are doing and if you have suggestions let us hear them! You can always contact me or another board member; details elsewhere in the Rag.

Tim Barrett, K9VB, RARA President
president@rochesterham.org

As a result of the continuing COVID19 concern, our "in-person" RARA events have been canceled in the near term. These include the monthly meetings at the BSA, our Hamfest, Tour de Cure, RARA Banquet, RARA Picnic and more. Building on the success of our online monthly meetings and RARA Academies, the board has chosen to continue to hold the monthly online meetings. Look for details of these meeting to appear at rochesterham.org

CALENDAR OF EVENTS

WEDNESDAY OCTOBER 7, 2020 - RARA General Meeting
7:00 PM - ON LINE

<https://attendee.gotowebinar.com/register/7655283047766453259>

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

Email request for link to secretary@rochesterham.org



EDUCATION

TIM BROWN, WB2PAY, EDUCATION COORDINATOR

RARA LICENSE COURSES

The online Technician License class began on Sept. 8th and has 12 participants. This includes 4 family groups for a total of 16 future Hams.

FYI: W4EEY will be running Technician and Extra license classes online beginning in October. The classes will be streamed to YouTube.

<https://www.youtube.com/watch?v=38dVbkpxTP4&pp=wglECgIIAQ%3D%3D>

The Technician class Begins Oct 7th at 6:30pm and has openings. You must register for the class at w4eey@arrl.net

RARA has Technician manuals for \$25.

If you need an Extra class manual, we can order it but because it is a new publication, there may be a delay.

Hams doing home studying for the General or Extra license may arrange for tutoring by emailing:

education@rochesterham.org

ELMERS

RARA's Elmers have a wealth of Ham Radio knowledge and expertise.

If you have a technical or operational question, let the RARA Elmers help you. Send your inquiries to education@rochesterham.org

MORSE CODE TRAINING

The RARA XRX CW Group assists those wanting to learn Morse Code.

Morse Code (CW) Training Resources may be found at <https://www.rochesterham.org/rxcwg.htm>

CW Practice is held online at 7pm on the 2nd, 3rd and 4th Wednesdays of the month.

CW on air practice is held on Tuesday evenings at 8pm on 50.250 Mhz. Individual CW practice sessions are held by the CW Elmers.

To join, please contact:

Forest Shick, WA2MZG fshick3@gmail.com

Tim Brown, WB2PAY, tjbrown@rochester.rr.com

Bob Karz, K2OID, rkarz@rochester.rr.com

RARA ACADEMY WORKSHOPS

If you have a Ham Radio related topic you would like to learn more about or would like to present to the club, send your ideas to

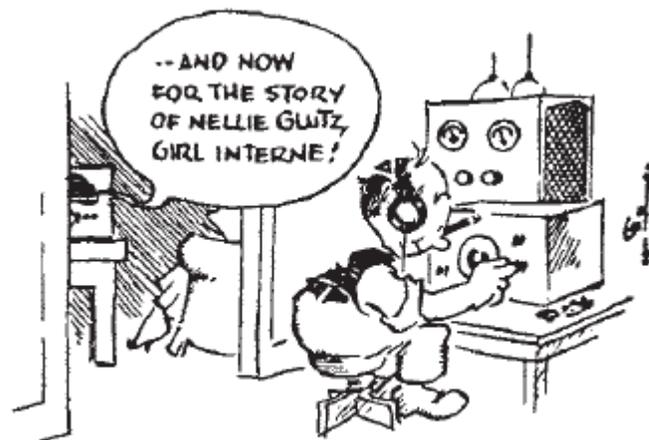
education@rochesterham.org

Antenna Analyzers Academy recordings are available

https://www.rochesterham.org/rara_academy.htm

FCC Grants ARRL Rule Waiver for Fire Emergencies, Hurricanes

<https://qrznow.com/fcc-grants-arrl-rules-waiver-request-for-fire-emergencies-hurricanes/>



EARPHONES STILL HAVE THEIR ADVANTAGES-

Courtesy October 1940 QST

PUBLIC SERVICE REPORT

MIKE MOORE, KC2NM, PUBLIC SERVICE COORDINATOR

Pumpkin Patrol: October 30-31 Bridges of the New York State Thruway



This event contributes to the safety of travelers on the New York State Thruway. It is a statewide event and is held in cooperation with the New York State Troopers. Hams are assigned a post at each of the Thruway bridges in Monroe County. They will observe activity on the bridges and report any suspicious activity to local law enforcement. These actions are repeated by ham clubs all along the thruway for statewide coverage. The event began several years ago when some untoward individuals were found to have dropped pumpkins from the bridges down onto passing trucks and cars. Our efforts have put a stop to the actions of these vandals but, more importantly, the resources of local law enforcement agencies have been put to more valuable use. The time commitment is from just after dark until just before midnight on Friday, Oct. 30 and Saturday, Oct. 31. Operations will use the N2NPE ARES repeater 146.61 PL 110.9. The following assignments have been provided by Ed Wilkonski K1EM, event captain.

Friday October 30, 2020

Bridge Number	Mile Post	Description	Call Sign	First Name	Second Op
1	352.36	Log Cabin	NS2B	Bob	
2	353.11	Mile Square Road	W2JAT	Jack	
		Pittsford-Mendon Road			
3	355.25	Route 64	AB2OY	Larry	
4	355.7	West Bloomfield Road	K1PY	Vic	
5	358.25	Clover Street Route 65	KD2EHW	Brett	
6	359.79	Pinnacle Road	K2DPC	David	
		East Henrietta Road			
7	360.78	Route 15A	WA2CHV	Jack	
8	362.12	Middle Road	K2UW	Richard	
		West Henrietta Road			
9	362.77	Route 15		George	
		West Henrietta Road			
9	362.77	Route 15-2	N2BNE	John	
		East River Road			Jean Louise
10	364.74	East River Road	WB2QCJ	Dean	N2PHB
		Scottsville-Chili Road			
11	368.99	Route 386	WM2W	Brian	
12	369.85	Union Street	KA2WNS	Bill	
13	370.79	Wheatland Center Road	KD2IOB	Tom	
14	372.41	Winslow Road	KC2YSO	Chris	KD2AZE Maria
		Riga-Mumford Road			
15	374.13	Route 36	W2RMB	Roger	Jim WA2MYF
16	375.03	Beulah Road	KD2RAF	Dave	Jeff KD2PQP

Saturday October 31, 2020

Bridge Number	Mile Post	Description	Call Sign	First Name	Second Op
1	352.36	Log Cabin	NS2B	Bob	
2	353.11	Mile Square Road	W2JAT	Jack	
3	355.25	Pittsford-Mendon Road Route 64	AB2OY	Larry	
4	355.7	West Bloomfield Road	N2YPM	Carolyn	
5	358.25	Clover Street Route 65	KD2EHW	Brett	
6	359.79	Pinnacle Road	K2DPC	David	
7	360.78	East Henrietta Road Route 15A			
8	362.12	Middle Road	K2UW	Richard	
9	362.77	West Henrietta Road Route 15		George	
9	362.77	West Henrietta Road Route 15-2	N2BNE	John	
10	364.74	East River Road	WB2QCJ	Dean	Jean Louise N2PHB
11	368.99	Scottsville-Chili Road Route 386	WM2W	Brian	
12	369.85	Union Street	KA2WNS	Bill	
13	370.79	Wheatland Center Road			
14	372.41	Winslow Road	KC2YSO	Chris	KD2AZE Maria
15	374.13	Riga-Mumford Road Route 36	W2RMB	Roger	Jim WA2MYF
16	375.03	Beulah Road	KD2RAF	Dave	Jeff KD2PQP

Support and Logistics

Net Control	WB2KAO	Tim	
Net Control	N2IZX	Lynn	
Goodie Patrol /Rovers/Admin	KC2KPL	Chuck	Diane
Goodie Patrol /Rovers/Admin	WB2JOR	Lee	
Goodie Patrol /Rovers/Admin	KC2NM	Mike	
Goodie Patrol /Rovers/Admin	K1EM	Ed	

Thanks to all of you who have volunteered! There are still some available slots to help out. There are two openings on Oct 31st for bridge 7 and bridge 13 Please consider signing up and participating in this event. Contact Ed Wilkonski

K1EM, event captain of this event at wingstwofly@rochester.rr.com. You may also register at the Public Service Section of the RARA website and click on the sign-up link.

RARA, in conjunction with our sister clubs SIARC and Drumlins ARC have participated in the Scouts BSA JOTA. This year, there are no local group scouting activities held on that weekend. There is no current plan for us to participate as a group.

We are working with the Rochester Museum and Science Center to determine if the Holiday Science and Technology program will be held this year.

Holiday Science & Technology Days	Rochester Museum & Science Center (In Planning Stage)	Wednesday - Saturday	December 26-28
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RXCWG CW ACHIEVEMENT CHALLENGE

The results of the CW Achievement Challenge are shown in the chart below. Thank you for participating. I hope it was fun for all.

NAME	CALL SIGN	POINTS
Reiner	N2PEZ	85
Luke	K2DIT	17
Forest	WA2MZG	39
Karl Heinz	K5KHK	546
Todd	N2TMS	2
John	AC2RL	411
John	N2JSA	1
Dave	WA2HOY	30
Nick	KD2RHU	17

Keep an eye on the SKCC Groups.io to see updates on our members efforts. Recently Reiner Dieg, N2PEZ accomplished Tribune TX1 level. Learn more at <https://www.skccgroup.com/> https://www.skccgroup.com/operating_awards/tribune/

For more info on RXCWG, see the Education report on page 3 of this issue or visit our web page. <https://www.rochesterham.org/rxcwg.htm>

6 METER BI-SQUARE ARRAY

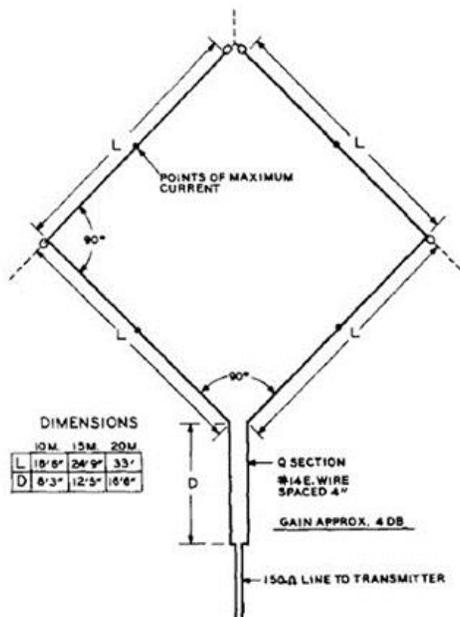
TIM BROWN, WB2PAY

Background:

This project began when I took down my 6 meter dipole so a tree in my side yard could be trimmed. When the "tree surgeon" was done, I had him pull an antenna cord over a large limb about 30 feet up.



I was pondering how to re-mount the dipole when I read an article in an old Ham Radio magazine from May 1990. The article described a Bi-Square antenna for 17 meters. I figured it would be easy to resize the antenna for 6 meters and hoist it up to the 30 foot height.



Bi-Square Description:

- 2 Wavelength loop, open at the top
- 4.5 db gain over a dipole
- 4:1 balun or 1/4 Wavelength 450 ohm window line matching stub.

Design & Hardware:

Using the standard formula $468 / \text{freq}$ for each leg (L) and $234 / \text{freq}$ for the 1/4 wave matching stub (D). I selected 50.125 MHz as the frequency. I had plenty of wire in my antenna totes so I pulled out some stranded 18ga wire and cut 2 lengths of 18' 8".

For the top support-insulator, I improvised with the handle of a cutting board that I got from the local 1\$ store!! I used a D clip to secure the pull line to the

top support. I love D clips. They don't jam up or freeze in the winter. Also \$1 store specials !!

I secured dog bone insulators to the middle of each leg with tie wraps. These insulators were pulled laterally to make the loop into a square.



The junction of the two legs and the window line matching stub was made with a Budwig HQ2 insulator. I used eye lugs and #8 screws and nuts to attach the wires.



The far end of the matching stub was soldered to a Budwig HQ1 center insulator. A homemade ugly balun was made with RG58 on a liter coke bottle form.



Results:

I tested the antenna on 50.250 with several members of RXCWG. They all reported my signal strength had improved. Received signals were stronger too. I am very pleased with the antenna and had a good time putting this together.

“CQ BOO CQ BOO CQ BOO”

Dave Wilson, WA2HOY

Halloween is on the horizon. With all the past months of keeping your distance from people, avoiding crowded places, wearing masks, is it any wonder you might be starting to feel like...a zombie?

Well, if that's the case, what better way show the ham radio world what kind of zombie you are and to have some fun over Halloween then by participating in the Zombie Shuffle!

This is a CW, QRP contest held from 1600 to Midnight, your local time. While this seem like a sprint, it's actually a contest designed for slow operating speeds. Why a Zombie Shuffle? Because as it says on the web page, "zombies don't sprint."

The bands are on 20, 40, and 80 meters, around the QRP portions of the band. The mode is CW and QRP only. Exchange is RST, State, Province, or Country, and, unique to this contest, your Zombie number. For your Zombie number you can use either your telephone 3 digit area code, or you can apply for a special Zombie Number from the Grand Witchess. Last, and certainly not least, your name, the one on your birth or death certificate.

So what else makes this different than your usual contest? It's the Rebirth Rule! You can rework the same station after two hours. After all, Zombies never stay dead for very long.

The "CQ BOO" at the start of this article is the way you call other folks for this contest.

There are also bonus points that you can earn during the Zombie Shuffle. The bonus for this year's contest hasn't been posted on the web page yet, but last year certain stations were adding the call letters, MYG, to their call. This was in honor of the call letters of the S.S. Titanic.

If you're new to CW or your skills have gotten rusty, or you're looking for a bit of operating fun geared to the season then give this event a try.

While the date for this year's Zombie Shuffle hasn't been posted on the web page yet, you can get details about the event as well as information about scoring and other details.

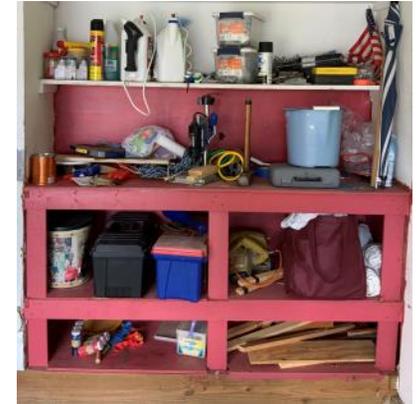
The Zombie Shuffle web page is at:
<http://www.zianet.com/grp/ZOMBIE/2019/pg.htm>

A HANDY WORKBENCH

FOREST SHICK, WA2MZG

I have a small work bench in the garage, but it is always covered with garage stuff and it is not portable – it is built into the wall. Most of the time it is in the wrong place to be useful! I end up using a garbage tote, a recycle bin, a chair, the back steps, or anything else I can find. Of course, they are usually the wrong height.

I needed a work bench that I could use in the yard, garage, basement, shack, etc. Off to my favorite store I went.



About 20 years ago I bought my daughters each a small portable bench. It folded up nice for storage but was not very light (metal legs and wooden surface), it also was not a solid surface. I was looking for an updated version.



I found a nice, light, relatively stable plastic bench that folds up for storage. It has a 22 x 24 work surface and stands 32 inches tall.



It is easy to move around. When I was making my laptop station, I used it in the garage for cutting and drilling and in the shack for soldering and assembly.



If the surface is too small, clips are provided so you could connect 2 or more together.

Although, for heavy jobs, it does not provide a sturdy and stable work surface. It is good enough for most other projects!

RARA MEMBERSHIP

TIM BARRETT, K9VB, RARA MEMBERSHIP SECRETARY

I'm pleased to report that club membership is in a very good position. On September 30th, when our membership year ends, we will have over 550 members. I don't know the exact number as I am writing this mid-September. Many of you have already renewed for the 2020 / 2021 season, thanks for doing that so promptly.

Having a strong membership is a great help in attracting good speakers and negotiating resources for the club. I will be shortly writing to the ARRL to report our club size as required for all ARRL affiliated clubs. Currently we are in the top 5 of national ARRL affiliated clubs according to ARRL statistics and I hope to keep it that way and improve our ranking if possible. Being part of such a large and successful club should be a source of pride to all our members, I believe.

If you have not renewed yet please take a moment now to go to the [renewals page](#) and get your membership up to date. If you don't recall your access code there is an option on that page to have it emailed to you. You can pay by credit card (you do not need a Paypal account) or there is an option to pay by mailing a check. Those of you reading this who are not members, or have allowed membership to lapse a while ago, please consider joining / rejoining [here](#).

Annual rates are very reasonable, \$15 for a full member (\$10 for Seniors) and \$10 for Associate members without a callsign. Associates get a free upgrade to full member when they get their ticket. Also note that you can join family members living in the same household as you for just \$5 per additional person.

Don't Delay, Renew Today!

NEW CONTEST SPONSORED BY ARRL

TIM BARRETT, K9VB, RARA PRESIDENT

Do you like contests? Fine if you don't, but they are a way of getting increased activity on the bands and getting a few new DX entities into your log. But one of the problems is that most of us are not Big Guns with high power stations and enormous antenna farms. How do we compete with them on a level playing field? Well the NCJ, the ARRL contesting magazine is sponsoring a new competition this month that attempts to do just that.

This is the Fox Mike Hotel Portable Operations Challenge (POC) although it is not just for portable operators. The ARRL says, 'According to the **contest rules**, scoring will be calculated using the distance between stations (Maidenhead grid squares) in kilometers divided by power output in watts. Fixed (QTH) stations will compete against portable (P) stations on 80, 40, 20, 15, and 10 meters.'

The contest is on October 3rd to 4th weekend i.e. very soon! Further details are on the ARRL website [here](#). If you decide to give it a try, let us know how you get on.

ANOTHER REASON TO BE A MEMBER OF RARA

DAVE ENRIGHT, K3WHD

I am now setting back after months wondering how I was going to get this 44 foot mast in the air and enjoying getting out even further. I now have two of my end fed antennas up on the new mast and for sure see a bigger difference. Thanks to Tim Brown, Don Kiser, and the rest of the folks that made it happen. They took time out to come on a SUNDAY away from their families and get this job done before the snow starts flying. I have limited space like many other folks, but unlike others. My backyard is all black top.

I have been in many groups and organizations over the past 55 years. It's just great to be in a hobby, where one of the Main Goals is to help both fellow and New Ham's get questions answered, help building, instructions on how-to and sharing your skills.

I have said for over 30 years on the radio, "The only dumb question, is the one not asked" and with ham radio I sure have asked my fair share, but have learned a lot and like helping others.

I look forward to help pay it forward and help other hams with there project.



NEW ON THE RARA WEBSITE

SCOTT THEIS, W2LW, WEBMASTER

In the last month, I have added several videos which I think would interest many hams. This short series, called "Show Us Your Shack", is from our July meeting and has five interesting videos with differing approaches to building and operating a station. These videos and many others are also available on the club meetings page at:

https://www.rochesterham.org/club_meetings.htm

Part 2A — Karl Heinz Kremer, K5KHK

https://www.youtube.com/watch?v=ph19_tc2yt4&t=1s

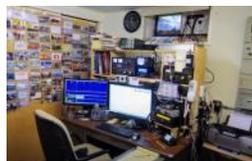
Karl Heinz gives us a tour of a quick backyard station that features a battery powered Elecraft KX2 connected to a vertical antenna with a 9:1 UnUn match bungeed to his deck. He is able to operate very effectively with this setup from 80-10 meters, and it's a quick setup practically anywhere.



Part 2B — John Hall, AC2RL

<https://www.youtube.com/watch?v=wEwP6BS3Knk&t=1s>

After five years of working on this project post retirement, John has built a very nice station with a wide array of antennas including a folded counterpoise, nicely packed on a suburban lot.



Part 2C — Don Kiser, AC2EV

<https://www.youtube.com/watch?v=r1sC9ipXub8>

With a Hustler vertical flagpole antenna and a Elecraft K3, Don shows shack and his transfer switch, as featured in the [May](#) and [June](#) 2019 RARA-RAG, along with his weather station.



Part 2D — Tim Brown, WB2PAY

<https://www.youtube.com/watch?v=0JCJbUxTaf8>

Tim provides an excellent overview of one of his shacks with a mix of vintage and modern equipment operating on a number of modes, including the "original digital", CW.



Part 2E — William Hopkins, AC2YV

https://www.youtube.com/watch?v=RPG9yxeM_0

Bill shows us the bench he constructed and the unique way he can access the rear of his radios. He also shows his antenna and audio selectors, which he built to work with his collection of radios, many of which he has repaired and returned to service.



A BATTERY PACK AND CHARGER FOR THE QCX+ QRP TRANSCEIVER

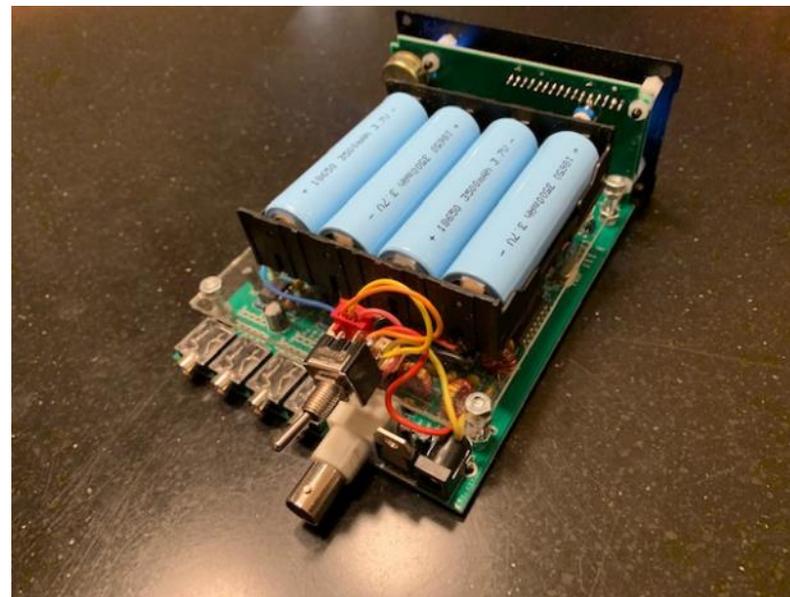
BOB KARZ, K2OID

Many of us in the CW Group purchased the QCX single band CW transceiver kit last spring. I bought the recently introduced "+" version which has a larger circuit board for easier assembly as well as an optional extruded aluminum case.

The enclosure has room for the optional 50 watt amplifier above the main circuit board, but what's the point of buying an amplifier for QRP rig? I'd rather use the space for a battery pack enabling portable operation.

This article describes a lithium ion battery pack and charger for the QCX+. The project was inexpensive and relatively easy to build. It was also my first experience with the Arduino Pro Mini controller. The result is a QRP rig that will run for many hours without a power supply.

The Battery Pack



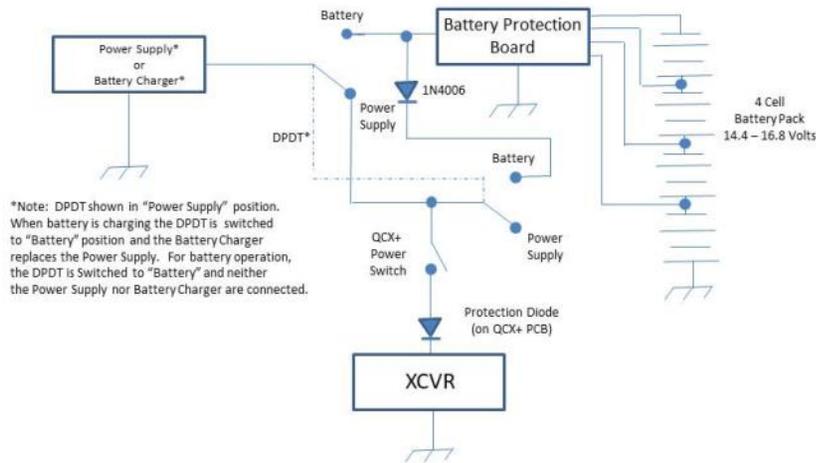
QCX+ with Battery Pack

The QCX requires 15 volts at about 500 milliamps for 5 watts of RF output. Ten 1.5 volt AA batteries could be used, but they would take up too much space. Lithium ion or lithium polymer batteries (such as for drone batteries) might work, but most are 12 volts, too low for 5 watts of output. Rather, the 18650 size lithium ion batteries are ideal. Their voltage ranges from 4.2 volts fully charged to 3.6 volts when discharged, so a 4-pack would have between 16.8 and 14.4

volts. In practice I charge the batteries to 16.4 volts which extends their life. I selected 3500 milliamp hour (mah) batteries for the project (about \$20 for four on the internet including shipping).

The batteries are in a four cell holder that is mounted on a 0.1" Plexiglas plate (see figure above). Machine screw spacers mount the Plexiglas above the circuit board. Note that the 18650s are about a third longer and a third wider than AA batteries.

It is very important that lithium ion batteries have a protection board such as the Anmbest Enhanced 4S 16.8V 40A 18650 Charger PCB BMS Protection Board (\$10 at Amazon). The board protects against overcharging, over discharging, and excessive current (e.g. a short). It also balances charge in each individual battery so they all have the same voltage. Hooking up the board is a simple matter following labels on the board itself. The board is 46mm x 60mm x 3.6mm thick and is mounted underneath the battery holder.



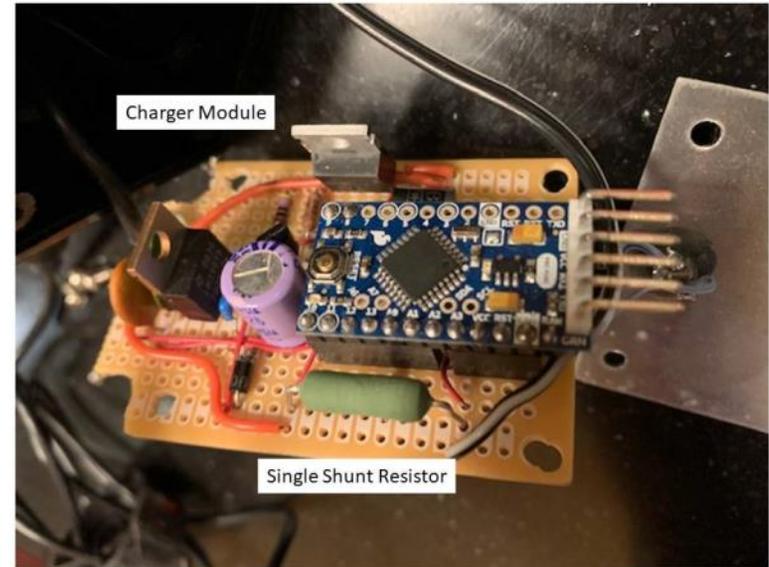
Power Configuration for QCX+

The power distribution circuit is shown above. When a DC power supply is connected to the input and the DPDT is switched to the "Power Supply" position, current is directed to the transceiver via the on/off switch and protection diode. When the battery charger is connected to the input and the DPDT switch is in the "Battery" position (with the on/off switch off), the battery will be charging.

With neither the power supply nor the battery charger connected to the input and with the on/off switch "on", the transceiver will be powered off the battery. The transceiver voltage will be the battery voltage less the voltage drops across the Shockey protection diode (about 0.4 volts) and the 1N4006 diode (about .8 volts). Thus, when the battery is fully charged (recall that I set the charger shut off at 16.4 volts) the voltage at the transceiver becomes 15 volts (16.4V-.4V-.8V) and the RF output will be 5 watts according to the QCX+ manual.

The Charger

Charging lithium ion batteries is complicated involving continuous adjustment of the charging voltage so as not to damage the batteries yet to charge them as quickly as possible. Most commercial chargers work with batteries outside the device. I needed a charger that would charge the batteries "in situ". Checking on the internet, I found an article on a four 18650 battery charger (<https://www.microfarad.de/li-charger/>) by Karim Hraibi, DD2KH. Basically the charger is made from an old laptop power supply, an Arduino Pro Mini controller and a few transistors, diodes, capacitors and resistors. It uses voltage across a shunt resistor to monitor the charging current and control it through a Field Effect Transistor (FET). The only circuit change was to use a single 1 ohm shunt resistor in place of two 1 ohm resistors in parallel. This has the effect of reducing the maximum charging current to 1 amp.



The Charger Out of Its Enclosure

The article is quite comprehensive as is the Arduino program (sketch). Construction details and theory of operation can be found on Karim's website (<https://www.microfarad.de/li-charger/>).

The sketch included on the website does the work of controlling the charging current and stopping charging when the target battery voltage is achieved. The charger then enters the trickle charging mode. An LED on the charging module shows the units status through various flashing patterns. It also logs the charging data which can be uploaded to a PC if needed.

I already had the power supply from an old lap top, many of the electrical components, a suitable project case and a pc board. The few parts I needed (such

as the FET, shunt resistor, and Arduino Pro Mini) were ordered from Mouser. I also had an Arduino Uno along with some minimal Arduino programming experience. In the process of building the charger I learned how to use the Uno to load a new bootloader into the Arduino Pro Mini as well as how to load the charger sketch into the Pro Mini.

The Charger must be calibrated before it can be used. The calibration procedure is straight forward but at one point requires about 750 milliamps of current through the 1 ohm shunt resistor to generate a calibration voltage for the Arduino Pro Mini. I do not have a constant current supply or the 17 ohm 10 watt dropping resistor needed to use a standard 13.6 volt power supply. However, I found that a D cell battery with a silicon diode in series provided the correct calibration current.



QNX+, Charging Module, and Laptop Power Supply

This was a relatively small but very educational project for me with a great result. I now have a great portable rig I can bring along when we travel or visit the grandkids.

SCANNING MULTIPLE STATIC TALKGROUPS IN DMR HOTSPOT

MIKE MOORE, KC2NM

While visiting the [WNY/Finger Lakes DMR Users Group](#) on Facebook. I saw a post from W2RDK with a linked video about an add-in to the Pi-star software which allows multiple static Brandmeister talk groups to be scanned using a hot spot. Pi-star is the common software package that is used in many of the multi-mode digital ham radio hot spots. The add-in is named Brandmeister Manager and instructions about installing and configuring it are found in [This Video](#) and [This Video](#) I have my Zumspot configured with talk group numbers that are not busy to ensure that I can hear traffic in groups I am interested in. Busier talk groups are better off left as dynamic so that they don't monopolize your hot spot. I have my own DMR ID for private calls in the list as well as 31369 Monroe County, 313693 Buffalo, 310799 Finger Lakes, and 311898 KB2CHM. My radio is set to promiscuous mode so that I can hear any conversations arriving from one of the talk groups that I have now made static. Most operators have been identifying the talk group on their initial call so that I know to switch to the correct channel to make the QSO.

PROFESSOR'S PIC(K)S

JEFF SONSTEIN, KD2RRB

FCC Grants ARRL Rule Waiver for Fire Emergencies, Hurricanes
<https://qrznow.com/fcc-grants-arrrl-rules-waiver-request-for-fire-emergencies-hurricanes/>

New Ham Radio Onboard The ISS Is On The Air
<http://k0lwc.com/new-ham-radio-onboard-the-iss-is-on-the-air/>

4/28/2020 Get the next SATELLITE pass prediction for your current location!
 Send an APRS message to WA1GOV-10 with a single uppercase entry of:

2015-049G	DUCHIFAT-1	KISEKI	SRMSAT
AAUSAT-4	DUCHIFAT-3	LO-19	STRAND-1
AO-7	EO-88	LO-74	SWISSCUBE
AO-73	E-ST@R-II	MAX-VALIER-SAT	TW-1A
AO-91	FO-29	M-CUBED	TW-1C
AO-92	GO-32	NO-44	UNISAT-6
AO-95	GOMX-1	NUDT-PHONESAT	UO-11
BEESAT-1	HOPE-1	NUSAT-1	UWE-3
BEESAT-2	HUSKYSAT-1	OF-2	XI-V
BEESAT-3	IO-26	PO-101	XW-2A
BEESAT-4	IO-86	PSAT2	XW-2B
BRICSAT2	ISS	QB50P1	XW-2C
CAS-2T	ITASAT-1	QO-100	XW-2D
CAS-3H	ITUPSAT1	RS-15	XW-2F
CO-55	JAISAT-1	RS-22	ZACUBE-1
CO-57	JO-97	RS-30	ZDPS-2A
CO-65	JUGNU	SO-50	ZDPS-2B
CO-86	KAITUO-1A	SOMP	
DO-64	KAITUO-1B	SPROUT	

NY QSO PARTY - ON THE AIR - OCTOBER 17!

DEAN FAKLIS, NW2K

It's all about NY on October 17 as radio amateurs from around the world get on the air to work all 62 NY counties, Chautauqua to Clinton, Niagara to Suffolk. A dozen or more mobile operators will take to the mean streets of NYC or the bucolic surrounds of the Southern Tier and North Country. Brave souls will sneak out to the woodlands to activate a rare county, Field Day style, as temps may dip into the 30's. And good, solid Elmers will open up their shacks to new hams and build excitement as the spotlight is on NY!

The NYQP game is easy to play as all operating modes and bands are eligible. The QSO exchange is simple for NY operators: signal report and county. For those eager out-of-state ops wanting to work all 62 counties, they'll send a signal report and their state, province or DX. There's a category for all operating styles from single-operator-QRP to multi-operator-high-power-mobile! And the 48 plaques, which are awarded to category winners, are simply beautiful and I think they're the best in the business.

The state-wide NYQP Plaque Sponsorship Team and the Rochester DX Association really step up to the plate each year to make all the effort worthwhile. Please start thinking about your NYQP operations. Mobile or Fixed, SSB, CW or digital, the important thing is to get on the air with friends and make some "noise" and help promote amateur radio spirit in NY. Please consider using this event to introduce new hams into the mix. Elmering has always been an important aspect of our hobby and NYQP is a perfect vehicle from which to teach operating concepts and station engineering. Make a new antenna, try a new digital mode, operate a vintage rig, have fun!

There is a page at the NYQP website (www.nyqp.org) that has been created to announce activity across the state. It's called "2020 Planned Activations" and it's easy to list your plans online to alert others of your activity in that rare or not-so-rare QTH. It helps all of us make informed choices on how to operate to maximize fun. The event's rules are also listed at the site.

In 2019, we had a near record 305 logs. Jeff W2FU wrote: "QSOs were made in all 62 NY counties. The rarest were Clinton, Montgomery and Washington with a total of only 36 QSOs made among all three. The Erie County effort was nearly double any other county while making 2,367 QSOs. Logs were received from 58 of the 62 NY Counties, 37 States, 4 Canadian Provinces and 4 DX countries with OM2VL getting a whopping 227 QSOs from 53 NY counties into his log. Only 2 stations worked more counties than OM2VL, and they were in NY and PA!" See Jeff's complete 2019 report, the award winners, and the complete box scores at NYQP.org.

Let's set some new records in 2020! Need any assistance or have any questions? Have a question about logging software? The NYQP Team is at the

ready...send me a note any time at NW2K@arrl.net or check out the great NYQP website (www.nyqp.org) for all of the details. We'll help you get on the air on Saturday October 17, 2020!



With the ever increasing need for 12 volt, high current power supplies for those new solid state, 100 watt transceivers we so desire, the October program featured Bob Rabideau, N2AFR, of Sykes-Datronics, who spoke on home brewing such an item. Also new was the venue where for the first time RARA met at the Statesman's Club high atop the First Federal Building at State and Main Streets. The lofty location came complete with free underground parking away from rain and snow, but certainly didn't allow mobile antennas. This writer remembers fondly stopping in a line of cars on Corinthian Street, each month, to remove the 5/8 wave two-meter antenna and tossing it into the back seat, only to reverse the process upon leaving. RARA Secretary Dave Coleman, N2AOB, reported that Ed Mahar, WB2ZJY, George Walker, N2BIR and Irv Goodman, AF2K, have been assigned to the ever more important Membership Committee. Their first business was to move the RARA picnic to an improved location at Ellison Park where you will see RARA members proudly wearing their new club tee shirts. Rick Berg, WA2RLQ, was busy as he wrote two articles in this issue for the Rochester DX Association (RDXA). Rick invited members and guests alike to join them at their next meeting where a film will be shown on the recently completed DXpedition to rare Spratly Island. At that time the RDXA met at the Colonial Hotel on Empire Blvd where a pre-meeting social gathering found the DX Dinner Club meeting for a nice sit down dinner at the hotel's restaurant, and yes, a suit and tie was required. Also in this issue you found Ed Kohl, WA2UBD, writing for the Rochester Radio Repeater Association, where he urged paying up your dues with a check to his callbook QTH. At this time, actually forever except for a short period of time meeting at member's homes, the RARRA met at the Pittsford Town Hall on Main Street, and still does to this day. This Historian believes this makes the RARRA the longest club ever to meet in one location. The RARA Licensing Class continued their years of service to the club and community, although they did move around a lot, with Ed Holdsworth, N2EH, as Chairman, assisted by Chris Reich WB2DJY, Bud Young WA2UGE, and Joe Calzaretta K2VI. The Rochester VHF Group, then meeting at the RF Communications building on University Avenue, had a meeting on interference problems led by Pete Sitter. Bruce Kelley, W2ICE, RARA Club Historian, wrote to announce beginning plans for RARA's 50th anniversary. Stay tuned for more details. With regret it was announced that Harold Sheer, W2TII, of Wayne County became a Silent Key at age 74. Harold was licensed locally for over 50 years and held many appointments with RARA and Wayne County Civil Defense. His hill-top 100+ foot tower, with several mono-band HF yagis, was a rare and majestic sight for the time. RARA Old timer and friend to all, Cappy Capauldy K2UXF, especially active on 6 and 2 meter AM, and who was fondly remembered as RARA's Auctioneer for many years, is moving South and his Want Ad invited buyers to come and browse. I bet that was fun. A long term commercial advertiser was The Heathkit Electronic Center on Jefferson Road.

The RARA RAG

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OCTOBER 3rd MEETING IN NEW LOCATION

by Don Drennan, W2EBF

Our RaRa meeting on Friday, October 3rd, at 8 p.m. will feature a program on heavy duty power supplies, that is those above 30 amperes. With more high wattage solid state amplifiers being used there is a demand for such a 12-14 volt supply. Not many are now available in the market. Those few available are very expensive. Our guest speaker will be Mr. Bob Rabideau, Design Engineer for Sykes-Datronics in Rochester. Bob is also known as N2AFR, when active on the ham bands. He will tell us about planning and building a good homebrew supply to meet this need. Bob will be assisted by Fred Cupp, W2DUC.

This meeting will be our first in our new home at the Statesmans Club on the 19th floor of the First Federal Savings and Loan Building Plaza located at the State Street/Main Street intersection downtown. If you park under the First Federal Building your parking will be *free, secure* and *dry*.

Enter the alley marked Corinthian Street between the Americana Hotel and First Federal Plaza, off State Street. The end of this alley is a city parking garage which is available to you but is not free. Driving down Corinthian Street, before you get to the city parking watch for the entrance to the First Federal Parking Garage on your right. Stop at the entrance to take off or lower, or tie down, your antenna. This part is important as an antenna above the car roof may trigger the building sprinklers overhead. "*No free car washes allowed please*." A guard will observe your car via closed circuit tv and will ask your destination as you approach the gate. You will reply that your destination is the RaRa Meeting. Then the gate will open for you to enter and park. Get to the lobby via one of the nearby elevators.

Upon arrival in the lobby from the garage elevator you must take a different elevator to the RaRa Meeting rooms on the 19th floor. You will be getting off for the "Statesmans Club".

(Continued on page 3)

COMING RaRa ANNIVERSARY

Bruce Kelley, W2ICE, who is RaRa Club Historian last month told us we had a milestone birthday coming. We thought the members might have some fun to mark that celebration. What better way than to hold some sort of operating event? Actually we are interested in some other way to celebrate too. If there are some other ideas please let your *Rag* editor know.

Just let me throw some ideas into the hat to help get the ball rolling. Since we will have accumulated fifty years as a club, use that as a design base. Would you be interested in a special award for fifty state QSLs within a specified time, such as the anniversary year? In case you only operate 300 MHz and down suppose you got together fifty QSLs from fifty different members, after working them two way of course. How about a fifty-fifty-plus seven; that is fifty years for RaRa, fifty states plus fifty countries all worked within the magic year and QSLed. For those who might not be too active now maybe they could put together QSLs from fifty RaRa members that span the actual fifty years of the club existence. See how those ideas just pop right off the frying pan into the fire? Naturally some award worth its salt might be chosen, we are open to suggestions here also.

Put your mind into gear and see what comes out that you like. This is or should be fun so lets keep it light and obtainable. Lets see how RaRa can celebrate its big fifty. Keep in mind that RaRa is one of the largest radio clubs in the nation, our members work appears in national magazines and in various ARRL Handbooks used worldwide. We have some past pioneers and some old timers who are still pioneering. What is suitable and worthy for RaRa?

SYRACUSE HAMFEST : OCTOBER 4th

The Radio Amateurs of Greater Syracuse (RAGS) are holding their hamfest at the New York State Fairgrounds on Saturday, October 4th. As Saturday is the only day it might be best to arrive early to get the full enjoyment from this fine event held by one of our neighboring ham clubs.

VE TEAM

RARA (Laurel VE affiliation) is not offering testing until at least September.

For remote testing please see hamstudy.org and search on the page for "remote" or "online".

LARC (Lancaster Amateur Radio Club) is also offering testing.

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

The VE team is asking the membership if they know of and have confirmed availability of a large room that can accommodate up to 20 socially distanced persons with tables and chairs.

If you have an area that meets the following criteria contact Don Kiser at (585) 613-1035 (Voice/Text) or dkiser100@gmail.com

- Available on a Saturday (preferably 3rd Saturday)
- Adequate shelter (heated)
- Adequate parking
- Tables, chairs (or possibly RARA can rent them and have them delivered)
- Space for up to 20 socially distanced persons

CW ELMERS

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

- All persons must be contained within a single viewable space (not multiple rooms)

We have exhausted our search of all Monroe County meeting areas including (not a full list):

- Monroe County Parks (there extenuating circumstances that make scheduling difficult)
- Monroe County Libraries
- Monroe County Banks
- Religious Organizations
- Academic Institutions
- Private Businesses

I would prefer that you not simply reply with "Have you tried X?" Most likely, I have. If you think there's an organization please call them first to confirm, then call me.

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

RADIO ELMERS

Name	Call	Area	Email
Tim Brown	WB2PAY	Ogden	tjbrown@rochester.rr.com
Dave Carlson	N2OA	Batavia	kdcarloso@gmail.com
Lawrence Hill	N2AJX	Henrietta	lawrence.hill@rit.edu
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
Peter Schuch	WB2UAQ	Perinton	pschuch@rochester.rr.com
Forest Shick	WA2MZG	Webster	fshick3@gmail.com
Dave Timmons	W2DST	N Greece	dstimmons@gmail.com
Dan Waterstraat	W2DEW	Henrietta	higreen@rochester.rr.com

RARA CALENDAR

TIM BARRETT, K9VB, MEMBERSHIP SECRETARY

October 2020						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 RTTYOPS Weeksprint SARL 80M QSO Party SKCC Sprint Europe NCC RTTY Sprint	2	3 Portable Ops Challenge TRC DX Contest Oceania DX Contest, Phone Russian WW Digital Contest YLRL DX/NA YL Contest German Telegraphy Contest IARU UHF Region 1 Contest CA QSO Party FISTS Slow Speed Sprint SKCC QSO Party
4 Portable Ops Challenge TRC DX Contest Oceania DX Contest, Phone Russian WW Digital Contest YLRL DX/NA YL Contest IARU UHF Region 1 Contest CA QSO Party FISTS Slow Speed Sprint SKCC QSO Party RSGB DX Contest	5 AWA Net 145.110 MHz, 7pm WW SSB Activity Contest ARS Spartan Sprint RTTYOPS Weeksprint RSGB 80M CW Contest	6 Phone Fray	7 RaRa Monthly Mtg ONLINE 7pm ROC City Net 3.810 MHz, 8pm CWOps Mini-CWT Test UKEICC 80M Contest RSGB 80M CW Contest VHF/UHF FT8 Activity Contest 432 MHz Fall Sprint	8 RaRa BoD 6:30pm ONLINE ARES Net 146.610 MHz, 7pm RTTYOPS Weeksprint NCCC Sprint NCCC Rtty Sprint	9	10 QRP ARCI Fall QSO Party Makrothen RTTY Contest ARRL EME Contest NV, AZ, PA QSO Parties Cosack's Honor QSO Party Microwave Fall Sprint FISTS Fall Unlimited Sprint
11 QRP ARCI Fall QSO Party Makrothen RTTY Contest ARRL EME Contest NV, AZ, PA, SD QSO Parties Cosack's Honor QSO Party UB ON CW, 6M Contests K1USN Slow Speed Test	12 AWA Net 145.110 MHz, 7pm WW SSB Activity Contest RTTYOPS Weeksprint	13 Phone Fray NAQCC CW Sprint	14 ROC City Net 3.810 MHz, 8pm RSGB 80M Data Contest CWOps Mini-CWT Test VHF/UHF FT8 Activity Contest RSGB 80M Data Contest	15 ARES Net 146.610 MHz, 7pm RTTYOPS Weeksprint NCCC Sprint NCCC Rtty Sprint	16 JOTA Weekend	17 JOTA Weekend Araucaria WW VHF Contest JARTS WW RTTY Contest NY QSO Party Worked All Germany Contest Feld Hell Sprint Argentina 7MHz Contest
18 JOTA Weekend Araucaria WW VHF Contest JARTS WW RTTY Contest NY QSO Party IL QSO Party Worked All Germany Contest	19 AWA Net 145.110 MHz, 7pm ARRL School Club Roundup RSGB FT4 Contest	20 Phone Fray RDXA 7.30pm Online ARRL School Club Roundup	21 ROC City Net 3.810 MHz, 8pm CWOps Mini-CWT Test ARRL School Club Roundup	22 ARES Net 146.610 MHz, 7pm RTTYOPS Weeksprint NCCC Sprint NCCC Rtty Sprint ARRL School Club Roundup	23 ARRL School Club Roundup	24 CQ WW DX Contest, SSB KY State Parks on the Air
25 CQ WW DX Contest, SSB	26 AWA Net 145.110 MHz, 7pm	27 Phone Fray	28 ROC City Net 3.810 MHz, 8pm CWOps Mini-CWT Test	29 ARES Net 146.610 MHz, 7pm RTTYOPS Weeksprint NCCC Sprint NCCC Rtty Sprint	30 Pumpkin Patrol Zombie Shuffle	31 Pumpkin Patrol Russia WW MultiMode Contest UK/EI DX Contest SSB

NEWS FROM AREA CLUBS

MONROE COUNTY ARES / RACES NEWS

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



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

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

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

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

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

WEB: www.monroecountymcomm.org

Facebook : Monroe County Amateur Radio Emergency Service, Inc.

Twitter @MCARESNY

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

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

Monroe County ARES
Ralph Dutcher, Net Control - KD2BDZ@arrl.net

ROCHESTER DX ASSOCIATION, RDXA

We will hold a zoom meeting on Tuesday 20 October.



Program is "K3LR - Tim Duffy - DX Engineering" which will begin at 8:00pm.

For additional information on upcoming meetings and events, please, Check rdxa.com for details

ROCHESTER RADIO REPEATER ASSOCIATION

The Rochester Radio Repeater Association, RRRRA will not be having it's regular meeting on October 16th due to the Pittsford Town Hall's meeting room being closed.

Stay tuned to our web site, www.k2rra.org for current information on whether our meeting place will be available.

The elected RRRRA officers for 2019 - 2020 are, Bob Shewell, N2HJD, President, Bob ODell, N2BZX, Vice President, Ed Wilkonski, KC2WM Secretary, and Bob Smith, NS2B-Treasurer / Membership Chairman. RRRRA also accepts donations to the club. If you are not currently a member and want to support RRRRA, you can join at our monthly meeting or on our web site. www.k2rra.org

XRX AMATEUR RADIO CLUB

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

ROCHESTER VHF GROUP

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



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

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

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

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

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

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

Some are older models and some are newer models, but all provide access to the 6 meter, 2 meter, and 70 centimeter bands using both traditional FM and the exciting narrow-band SSB mode that supports unexpectedly long-distance (100's of km's routinely and 1,000's of km occasionally) VHF communication. These are good all-around radios no matter what club you end up affiliating with later. We hope its us.

AMATEUR RADIO ASSOCIATION OF THE SOUTHERN TIER, ARAST

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

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

Both CCARES and ARAST monthly meetings will be held online until further notice. Check out the Upcoming Events on [arast.info](http://www.arast.info) for particulars.

Our 2020 Hamfest, which was scheduled to be held this year on September 26, 2020 at the Chemung County Fairgrounds in Horseheads, New York, has been cancelled because we are unable to meet the strict requirements of the state and county and still make it a viable event.

Anyone who currently holds a ticket may obtain a reimbursement by mailing a stamped self-addressed envelope to ARAST, P.O. Box 614, Horseheads, NY 14845-0614. (Make a photocopy for your records.) Alternatively, you can use this year's ticket at next year's hamfest, scheduled for September 25, 2021, or consider it as a donation.

We regret that the 2020 Guthrie Wineglass Marathon in the Corning area will not be taking place as a "live" event. Hopefully, in 2021, things will be back to normal, and we will again be looking for extra communicators.

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.

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).

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

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

ORLEANS COUNTY AMATEUR RADIO CLUB

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

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

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

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

THE AMATEUR'S CODE

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

THE RADIO AMATEUR IS:

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

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. There will not be testing in October. The meeting for Wednesday, October 14th has yet to be determined if it will be virtual or in person, Check the SIARC WEB page for details.

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.

INTERLOCK ROCHESTER - K2HAX - ROCHESTER'S HACKERSPACE

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

ROCHESTER MAKERSPACE

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

GENESEE VALLEY AMATEUR RADIO ASSOCIATION

Email n3dsp@lafireline.net for details.

ASTRONOMY SECTION ROCHESTER ACADEMY OF SCIENCE

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

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

RARA OFFICERS, DIRECTORS AND COORDINATORS

OFFICERS

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

DIRECTORS

Tim Brown, WB2PAY	(585) 750-2087	educ-george@rochesterham.org	George Lama, KC2OXJ	(585) 764-0618	KC2OXJ@gmail.com
David Enright, K3WHD	(585) 737-3657	denright1228@gmail.com	Scott Theis, W2LW	(845) 774-9809	sa_theis@hotmail.com
Tim Guyot, KB1POP	(585) 406-3163	timguyot@gmail.com	Don Vallone, KD2REU	(585) 766-0416	indyshadow@yahoo.com

ACTIVITY COORDINATORS

Club Historian	Ed Gable, K2MP	egable@rochester.rr.com	Public Service	Mike Moore, KC2NM	publicservice@rochesterham.org
Club Station Trustee	Dave Enright, K3WHD	denright1228@gmail.com	Raffle Administrators	Forest Shick, WA2MZG Jeff Sonstein, KD2RRB	wa2mzg@arrl.net
Education	Tim Brown, WB2PAY	education@rochesterham.org	RARA Academy	Tim Brown, WB2PAY Scott Theis, W2LW	education@rochesterham.org sa_theis@hotmail.com
Hamfest Co-Producers	Tim Guyot, KB1POP George Lama, KC2OXJ Dave Mitchell, KD2RAF Mike Moore, KC2NM Brian Duff, WM2W	hfproducer@rochesterham.org	RARA RAG Editor	Forest Shick, WA2MZG	editor@rochesterham.org
VE Team	Don Kiser, AC2EV	dkiser100@gmail.com	Proof Readers	Susan Aiello Dave Wilson, WA2HOY	
Media Communications	Tim Guyot, KB1POP	timguyot@gmail.com	Refreshments	Rich Hoffarth, K2AXP	rhoffarth2000@yahoo.com
Membership Secretary	Tim Barrett, K9VB	membership@rochesterham.org	Reward Points Administrator	Tim Barrett, K9VB	tim.k9vb@gmail.com
			Webmaster	Scott Theis, W2LW	webmaster@rochesterham.org

ROCHESTER AREA RADIO CLUB CONTACTS

Antique Wireless Association (AWA)

Lynn Bisha, W2BSN: lbisha@rochester.rr.com

Amateur Radio Association of the Southern Tier (ARAST)

Reiner Dieg, N2PEZ: n2pez@arri.net

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@arri.net

Drumlins Amateur Radio Club Ltd. (DARC)

drumlinsarc@gmail.com

Fisherman's Net Amateur Radio Club

Jim Sutton, N2OPS: jim@otrym.org

Genesee Valley Amateur Radio Assn.

Bill Boyd, N3DSP: N3DSP@lafireline.net

Keuka Lake Amateur Radio Association (KLARA)

Gary Stratton, KC2YTD: keukelakeara@gmail.com

Monroe County ARES / RACES

Dave Timmons, W2DST: dstimmons@gmail.com

Orleans County Amateur Radio Club (OCARC)

Terry Cook, K2EYS: k2eys@ocarc.us

Rochester Amateur Radio Association (RARA)

Tim Guyot, KB1POP: timguyot@gmail.com

Rochester Institute of Technology ARC

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

ROC City Net

Joe Merolillo, K2ZX: k2zx52@gmail.com

Rochester DX Association (RDXA)

Chris Shalvoy, K2CS: cshalvoy@att.net

Rochester Makerspace

David Duckles: rocmakers@gmail.com

Rochester Radio Repeater Association (RRRA)

Bob Shewell, N2HJD: bshewell@frontiernet.net

Rochester VHF Group (RVHFG)

Ev Tupis, W2EV: w2ev@yahoo.com

Squaw Island Amateur Radio Club (SIARC)

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

XRX Amateur Radio Club

Brian Donovan, K2AS: k2as@outlook.com

NOVEMBER RAG DEADLINE OCTOBER 15, 2020

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

<https://attendee.gotowebinar.com/register/7655283047766453259>

CONTACT WEBMASTER@ROCHESTERHAM.ORG FOR SUPPORT

Rochester Area Repeater Listing

THE RARA RAG

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