



THE HAMSTER

January 2024

Official Monthly Newsletter of the Rochester Amateur Radio Club

*Founded In 1932 * 50+ Years Of ARRL Affiliation*



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PRESIDENT'S MESSAGE

Steve (W0STV) - President w0stv@yahoo.com

RARC has a new President for 2024, he is Patrick Hagge / KE0WWG. The new Vice-President for 2024 who is Dan Stroh / N0SPN. Both will take over their RARC office's on January 1st 2024. The Secretary will be Collin/AA0CN and the treasurer will be George/NOUM. Thank you both Collin and George for staying in your RARC positions. It has been a good run for me as your President. I will be active in the club to promote the 125Live radio station and more radio activities in 2024.

I want to remind everyone that each of us is a supporting factor for the club as a whole. To that end help the officers of the club know what you want to see happening in 2024 so they have your best interest to work towards.

The RARC Holiday Party is scheduled for January 9th at [Forager Brewing Company](#) starting at 6:00 PM. We have the barrel room reserved. At this time we will be able to order off the main menu. There will.....NOT..... be a RARC or ZOOM meeting at the Rochester EOC on that day. Meetings with ZOOM will continue on February 13th

The 125Live radio station is operational. They have scheduled monthly meetings (beginning January 16, 2024) for their members on the 3rd Tuesday starting at 2:00 PM. The first meeting will be a get acquainted with the 125Live people interested in Ham radio and a Q & A session. You need to be a 125Live social member to use the radio station.

Remember to pay your RARC membership to support the club and have a voice in how the RARC operates and functions. You can pay on line via credit card, or PayPal, also by check using the US mail. Remember to attach your full name and call sign with your payment. Go to the RARCHAMS.ORG web site and click on the header "Join the RARC" for a drop down box for your options to pay. You may pay at club meetings too.

Remember you need to put something in to get something out of anything! Support the RARC the best you know how to make it better and fun to be a part of. 73



RARC HOLIDAY PARTY

***January 9th, 2024 @ 6:00 PM**



Forager Brewing Company

**1005 6th Street NW
Rochester, Mn**

****Seating is limited to 29 persons and as of the date of this publication all seating is spoken for. If you would like to attend, please contact Steve (WOSTV) for possible cancellations.***



ARES

AMATEUR RADIO EMERGENCY SERVICE

Steve (WØSTV) w0stv@yahoo.com
Olmsted County ARES-EC

The Olmsted/Fillmore joint ARES party was fun. It ran for 3 hours with plenty of food, drinks, video's and prizes. It was a good thing for both our ARES groups to meet and talk. Will see if we can host next years event for other county ARES groups to meet here in December 2024.

Copied from the ARRL ARES web site:

ARES® Mission Statement:

ARES strives to be an effective partner in emergency/disaster response, providing the citizenry and public service/safety partners with communications expertise, situational awareness, and capabilities of professional communicators.

This is the focus point for Olmsted ARES to be able to support our EOC's and NGO's during any emergencies when called to service. The question we should continually be asking ourselves, could we fill that need if it was needed today?. Our advantage is our faster and accurate ground truth reports, for any served agency to make more precise decisions.

Beginning January 13th 2024 Olmsted ARES members will need to register with a picture of your drivers license to be active. The meeting starts at 9:00 AM at the Rochester EOC. Please be on time. Both EOC's have invested in the equipment to make us effective. It is up to us to be the effective communicators. The training will include discussion on deployments. How to use the Winlink and Yahoo emails during SkyWarn and emergencies, how they will allow operators to send information via any multi media device to any ICS station for easier and faster documentation of information for ARES to accumulate quicker and forward faster, along with the radio information. Continuing with how ICS forms are used during NIMS disaster operations and why you need to know the information on them. We will inventory and review the ARES radio room and then the trailer if time allows.

What is your communications capability during an ARES deployment? The more you know!

Olmsted ARES Mission Statement:

To be so effective that you are able to help others.

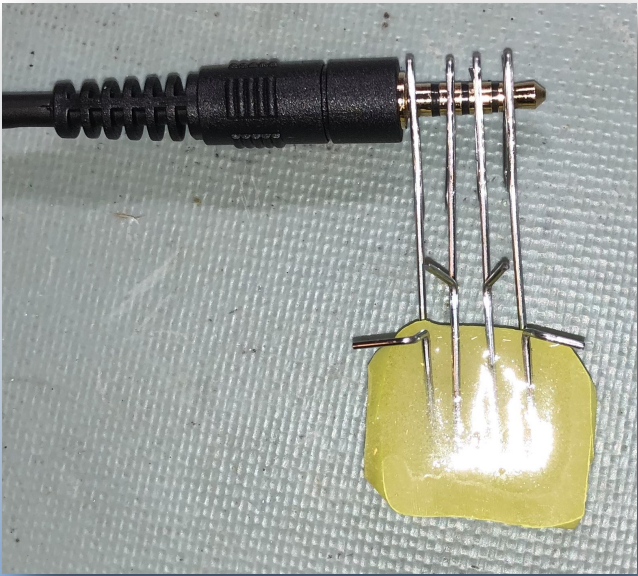


HAMSTER HINTS

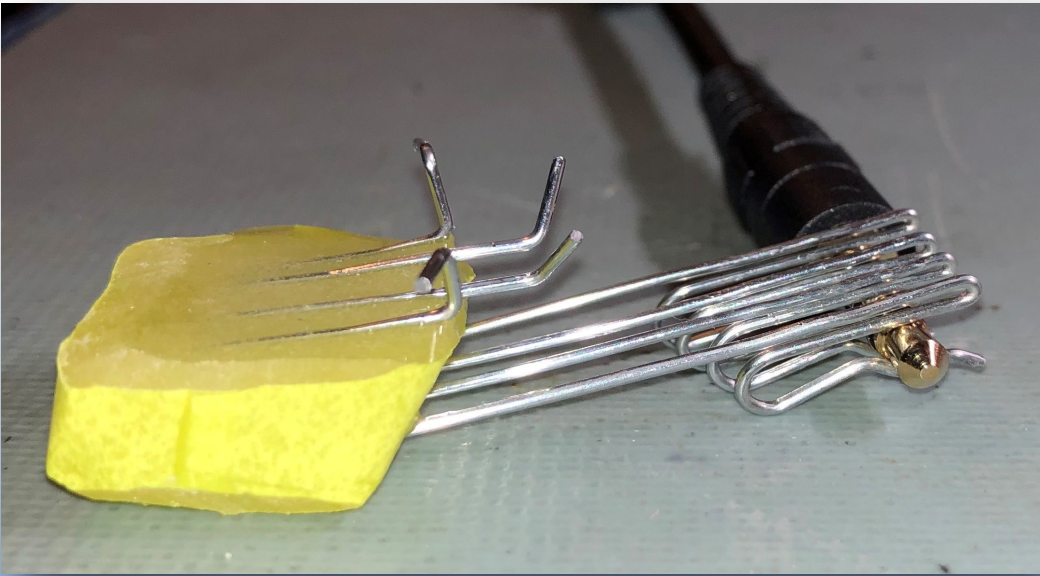
Bob (KEØEXE) gettuit@charter.net

Recently, I was debugging VARA-FM, connected through a Digirig unit, and I needed to verify the signals that were carried by a special cable. I had access only through a TRRS (tip-ring-ring-sleeve) plug, on one end of the cable (the other end had to be plugged into my rig, to generate one of the signals). Since I did not happen to have a TRRS jack in my parts-inventory, I simply built a custom jig, to make it easy and safe to probe the contacts on the small plug. Here is how I did it...

Starting with four paper clips, I carefully bent each one, identically, to form a spring-loaded, "pincher"-contact that could grab a single contact on the 3.5mm plug.



Homemade jig, attached to the DUT's TRRS cable-end plug



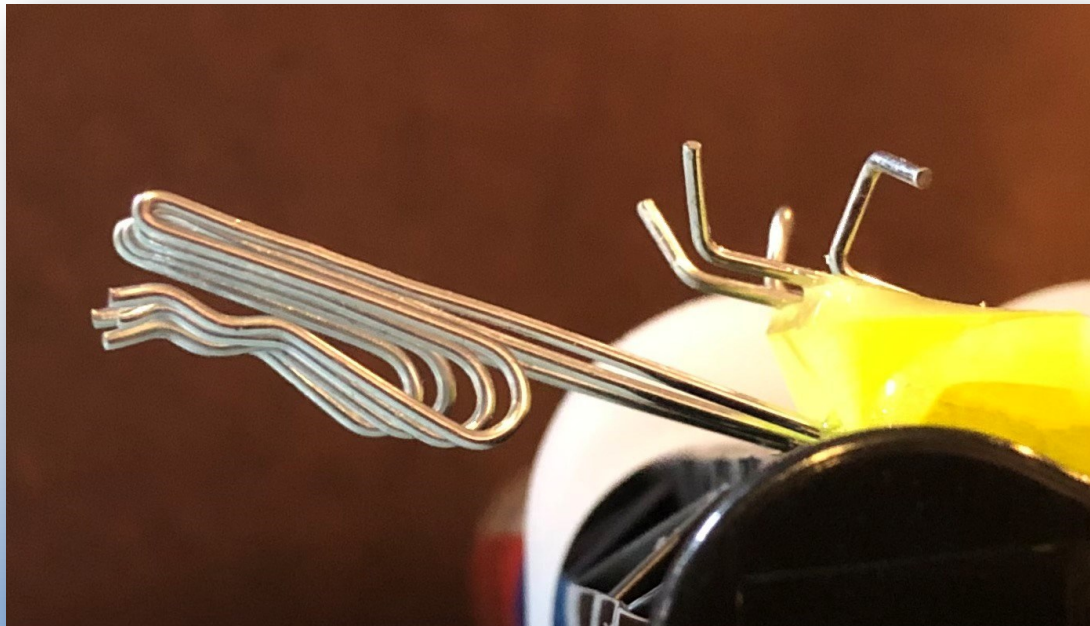
Trimmed epoxy, potting-material, within yellow-paper "dam"



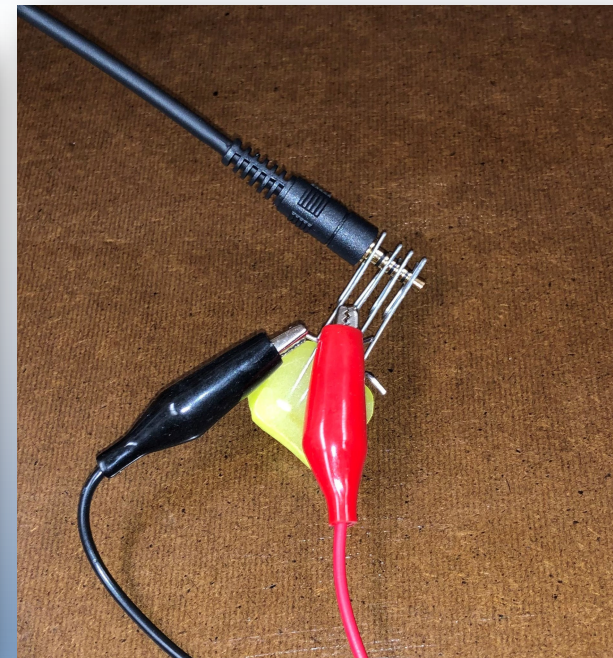
HAMSTER HINTS

Bob (KEØEXE) gettuit@charter.net

Once I had all four of these grabbers made, I snapped them onto the actual plug that I wanted to probe. I then poked four tiny holes into a scrap of paper, and pushed the paperclips through these holes. Folding the paper, I created a "dammed volume" (no, I'm not swearing at a scratchy potentiometer), to hold about an ounce of 5-minute epoxy while it hardened. (Be sure to mix the epoxy quickly and very well; I always use a 3" length of 1/8"-diameter dowel in the end of a portable drill.) The epoxy was used to "pot" the paperclips, as set in their proper positions. After the epoxy hardens, a little trimming with a razor-knife finished the jig. The photos show my completed, electrical aid. Once again, two-part epoxy "delivers the goods."



Detail of bends made in paperclips



The jig in use: "Easy peasy"



CONTEST CORNER

Fred (K4IU) k4iu@me.com

If you're a contester you couldn't help but enjoy the much-improved conditions in 2023 as [Cycle 25](#) matures. 2024 should be even better as we head to the predicted peak between October and January of this year. We all had a taste of it during the December 10 meter contest. There were a lot of RARC members to be found and some great scores posted on [3830](#). Whether you are a big gun or little pistol and did phone, CW or both the band did not disappoint.

2024 starts off with some very popular January events which include the following:

- **6 January** [ARRL RTTY Round up](#): Not a lot of RARC members operate this contest but most modern radios already have built in sound cards which make it easier to interface with RTTY engines. If you need help just reach out or check out this helpful [website](#)
- **13 January** [North American QSO Party CW](#)
- **20 January** [North American QSO Party SSB](#):
- **20 January** [VHF Contest](#) We have some real competitors in this contest with KCØP/R and Dan NØSPN recognized almost every year in the top ten boxes.
- **26 January** [CQ 160 meter CW contest](#)

There's much more in January and you can find additional activities on the [WA7BNM calendar](#) website!

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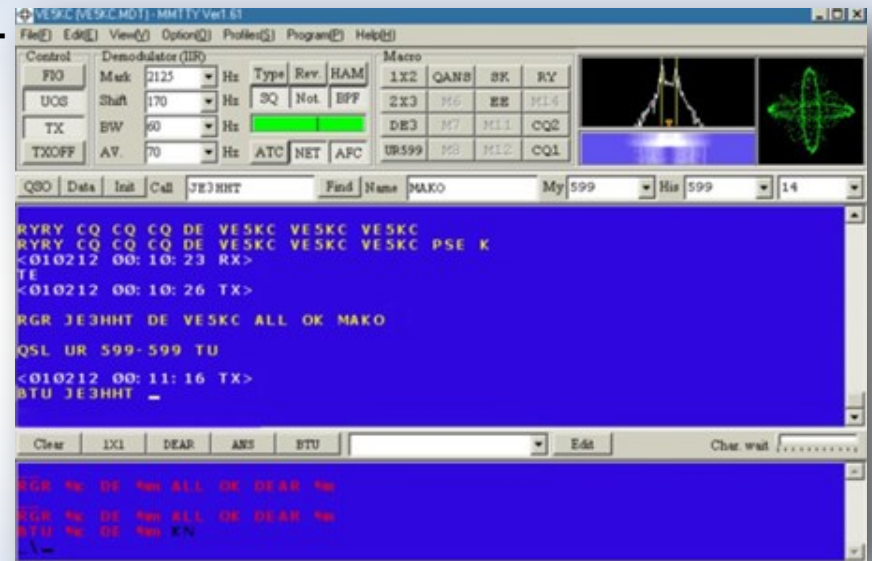
CONTEST CORNER

Fred (K4IU) k4iu@me.com

We've mentioned RTTY in several past updates. So, what is this mode about?

Radioteletype (RTTY) is a telecommunications system that uses a digital signal to transmit and receive messages. It evolved from earlier landline teleprinter operations that began in the mid-1800s. There are some RARC members who can still hear the clanging and see the oil drip from the old model 26s.

In 1922 the US Navy Department successfully tested printing telegraphy between an airplane and ground radio station. Later that year, the Radio Corporation of America (RCA) successfully tested printing telegraphy from their Chatham, Massachusetts, radio station to the R.M.S. Majestic. Commercial RTTY systems were in active service between San Francisco and Honolulu as early as April 1932 and between San Francisco and New York City by 1934. The US military used radioteletype in the 1930s and expanded this usage during World War II. A very detailed history and technical explanation is [here](#). It's great read!



The first RTTY contest was held October 31-

November 1, 1953. Today there is almost no RTTY activity on the amateur bands outside of ARRL bulletins, contests and some DX-peditions. As a daily communications mode, it has been replaced by other keyboard digital modes like PSK-31 and now WSJT-X.

One of the best resources for RTTY contesting is rttycontesting.com. This website is dedicated to digital mode contesting and provides a wealth of information on RTTY contesting, including tutorials, [software recommendations](#), and links to other resources. The [WA7BNM calendar](#) website lists many weekend RTTY contests.

I hope these resources help you get started with RTTY contesting. Let me know if you have any other questions.



TECHNICAL COMMITTEE

Eric (KF0S) - kf0s@yahoo.com

Tech Committee - 12/11/23

Attendees: 7 - Eric, Mark, George, Taylor, Steve, Dave, John D.

Post meeting and RARC meeting comments in italics

146.625 Fusion repeater:

- We should apply repeater and HRI-200 updates (plus update the Windows software).

443.85 D-Star repeater:

- We still haven't gotten the Gateway Server back at Mayo.
- Waiting on Mayo internet discussion as this may reflect what we need to install. Also base OS Icom requires goes End Of Life next summer. What is their plan?
- Discussion on main reflector: 30C was decided back in March.
- g2_link software to allow access to XRFxxxX and DCSxxxX reflectors was asked. I think I found someone who can send us the instructions. Still relies on GatewayServer install above.
- David, N3ZUK, volunteered to also help with getting things setup.
- Contest or something next year to try and get more usage on UHF, determine things like coverage, etc?

146.82 repeater:

- Steve completed battery backup check.
- Discussion on 12/10 net relative to poor signal, but I don't think the issue relates to the repeater.



TECHNICAL COMMITTEE

Eric (KF0S) - kf0s@yahoo.com

147.255 repeater:

What to do about Mayo repeater site:

- John Scott has site availability for another week.
- Taylor working on getting a badge and key for access.
- No change. Andy and Taylor are busy. Trying to determine where to send the request?
- Andy can provide access.
- Another person has also been identified.
- DSL internet connection from Ozmun. Work being done to reroute. *DSL connection rerouted on 12/16.*
- ~~Move to a cellular based internet on hold.~~

125 Live:

- Met with Program Director and established a time on their calendar: 3rd Tuesdays of the month from 3:00-4:00pm. 125 Live member or \$10. In January, try to get people into the Maple Grove Tech Class which starts in February. Present 5-6 charts, YouTube video, etc. Additional topics for later include elmering, station intro, etc.
- How many RARC members are 125 Live members?

Rochester EOC facility and computers:

Donation of W0IBM equipment:

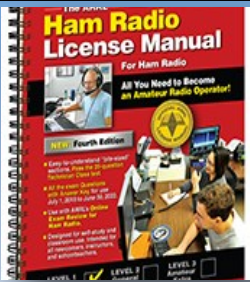
- IBM has said we can remove antennas from the courtyard at a later date, but not sure of an end date, but now IBM seems to have forgotten they said we could remove the items from the tower.
- *Pat is talking with a contact in IRG (site owners).*



TECHNICAL COMMITTEE

Eric (KF0S) - kf0s@yahoo.com

- Beam rotated north-south and tower lowered before we lost access to shack.
- Try and remove what we can as soon as possible, preferably before April 2024.
- TA-33 tri-band (with WARC), 6m beam, 2 2m beams (1 each H and V polarization), and 2m vertical. All are old, but the tri-band might be a replacement for the club's other beams for Field Day.
- There are also some satellite antennas and a vertical on the roof, but hadn't asked about getting those as of yet.



EDUCATION

Dave (KØVH) dcnaatz@gmail.com

Bill (KØRGR) k0rgr@arrl.net

One of the first steps needed to really get into Amateur Radio is to get your Amateur Radio License. This license is required in order to transmit on any of the Amateur Radio frequencies – however, listening does not. Listening is only part of the fun, so we encourage you to get your license so you can get the full experience!

RARC has an agreement with the [Maple Grove Radio Club](#) that prospective new Hams can take Monday classes on ZOOM starting in February 2024 to get their Technician Class license: sign up at https://k0lrc.org/tech_license_class/ There are other ways to take this education via the License Manual listed below and online videos if the ZOOM timing or approach doesn't work for you.

Study / Take a Class

There are numerous ways to learn about Amateur Radio. Below are some options, find the best that fit you:

Self-learning Options – The ARRL has published books for each license class and can be purchased on their website, Amazon and other Booksellers

- [Ham Radio License Manual](#) (Technician – start here!)
- [General Class License Manual](#)

Online Options – Dave Casler, KE0OG, has videos online for the [Technician Class license](#) via the ARRL and YouTube. The ARRL has Dave's videos for General and Extra Classes on the [ARRL Learn website](#) (you need to be an ARRL member for these two).

Other Options – The ARRL has an entire site dedicated to [Getting Licensed](#) which you can find other classes, online training materials, testing locations, etc.

Take the Exam

The last step is to take the test with a VE (Volunteer Examiner) team. But, before you do that, it is best to take some practice exams first, to ensure that you are ready for it.

Online Practice Exams:

- [ARRL Exam Review for Ham Radio](#)
- [HamStudy.org](#) (both online and app)

License Exams (In-Person):

- [Rochester Amateur Radio](#)
- [ClubARRL Exam Session Search](#)



JM **ROCKET** RADIO CLUB

Melissa (KE0WNH) - Mentor melissa.ke0wnh@gmail.com

Elmers Needed To Help with the

JM **Rocket** Radio Club

- *Kit Building*
- *Soldering*
- *Antenna Building*
- *Radio Operation*
 - *QSOs*
- *Mentoring*



Contact [Melissa](mailto:melissa.ke0wnh@gmail.com) (KE0WNH) for more information or how to volunteer.



125LIVE RADIO PROJECT



Steve Wiebke (W0STV) w0stv@yahoo.com

The 125Live Ham Radio Project Is Operational!

Beginning January 16th 2024 and the 3rd Tuesday of each month thereafter RARC will hold a Ham Radio presentation/Q&A session at 125Live at 2:00 PM. 125Live members must have a [125Live social membership](#) to attend. For more information please contact (W0STV) at: w0stv@yahoo.com





RARC BUY OR SELL



FT-991A All-Band, Multimode Portable Transceiver The FT-991A is the next generation in all mode, all band MF/HF/VHF/UHF transceiver with **C4FM (System Fusion) Digital capability**. The FT-991A includes multi-mode operation on CW, AM, FM, SSB, and Digital Modes (Packet, PSK31, RTTY and C4FM), with 100 Watts of HF/50mhz Capability (50 Watts VHF/UHF). This transceiver is owned by a ham radio friend of mine. Please contact me directly. **Price: \$975.00**

Bob Dubke (K0SIR) red@bobdubke.com (507) 398-5964



New Listing MFJ-939i Automatic Antenna Tuner Plug and play automatic antenna tuner that includes cable for use with any ICOM radio that supports the ICOM AH-3 or AH-4 tuner. Tunes your coax fed or random wire antennas 1.8-30 MHz from 2 Watts QRP to full 200 Watts SSB/CW. Matches 6-1600 Ohms (SWR up to 32:1). Mark (K0GMK) gmkelm@charter.net (507) 269-5254



ST-5000 Step Up Step Down Transformer 110V 220V Step Up Voltage Converter Transformer, 5kw rating, used once / no longer need, like-new condition, **\$100 firm** (\$129.99 on Amazon). See Bob, (KE0EXE), gettuit@charter.net



Price Reduced! Icom ic-756Pro2 HF/60 MHz Transceiver

160m-6m. 100 watts full power. Comes with **Icom mic and original printed user manual**. **Includes a Signalink USB (Icom plug 'n play jumper module installed)** with cable for digital modes. **Valley Enterprises FTDI CAT cable** and rig power cable Excellent condition. Mark (K0GMK) gmkelm@charter.net 507-269-5254, **Price: \$600.00 (was \$900.00)**

If you have any Ham related items that you want to sell or are looking for locally, email the Hamster at [RARC Buy or Sell](#) or Trade.



WOIBM FOR SALE



Available Equipment & Pricing On Next Page



WOIBM FOR SALE

| | |
|---|------------|
| Yaesu FT-767GX HF (160-10) All-mode 100W transceiver w/gen cov rcvr | \$500.00 |
| Yaesu SP-767 Speaker with filter (included with FT-767GX) | Included |
| Yaesu MD-1 Desktop Mic (included with FT-767GX) | Included |
| | |
| Yaesu fl-7000 Linear Amp - 160-15 up to 1200W input | \$1,200.00 |
| | |
| Yaesu IF-232C digital CAT interface | MAKE OFFER |
| | |
| Diawa NS-663B VHF/UHF Cross needle meter | \$50.00 |
| Diawa U-66V140-525 MHz Remote Sensor *2 | Included |
| Diawa U-66S2 1200-2500 MHz Remote Sensor | Included |
| Diawa U-66H 1.8-150 MHz Remote Sensor | Included |
| | |
| Texktronix 2215 Oscilloscope | MAKE OFFER |
| | |
| Rigblaster Nomic rig to soundcard interface | \$30.00 |

If you would like more information or would like to purchase one of the listed items please contact either [Dave \(K0VH\)](#) or [Eric \(KF0S\)](#)



Parks On The Air® (POTA)

Mark (K0GMK) gmkelm@charter.net Hamster Editor

It's Winter POTA Time!

Perhaps you've heard talk on the repeaters or on one of the Nets about [Parks On The Air \(POTA\)](#). You might be interested and think that it could be **fun to operate your rig and antenna remotely in a beautiful outdoor setting.**

In a nutshell it's all about operating in a state or national park, state trail, national monument, historical location or battlefield and making at least 10 QSOs to "activate" the entity. It's as simple as that, but there are a few [rules](#).

Take a look at the [Parks On The Air](#) website, view the [FAQ page](#), the [Help/Getting Started](#) section and perhaps view some of the getting started [videos](#) by seasoned POTA operators. If you are interested in becoming an Activator fill out the [sign-up](#) to become a member and get started.

Do you know that there is a [POTA entity in Rochester](#)?

Take a look at the [map of entities](#) to see the wealth of places to activate close to Rochester as well.

POTA is a great way to enjoy Ham radio and enjoy the bonus of operating remotely or out of your vehicle!





WEEKLY NETS

- ♦ **Monday 8 p.m. Elmers' Net** 146.820 repeater (PL Tone 100)
- ♦ **Tuesday 7 p.m.** (except on Club Meeting Nights) **RARC 10 Meter Net** meets on 28.325 Mhz. USB. The Net is cancelled without notice if lightning in the area or SkyWarn activation.
- ♦ **Thursday 6:30 p.m.** 146.820 Repeater. The first Net of each month is a voice net, and it's the **SE MN District ARES 2 Meter Digital Net**. The other weeks, it is an informal digital net, using the digital protocol announced for the week on the Net and NBEMS.

Most use [FLDIGI](#) and the rest of the [NBEMS](#) suite of programs, all of which are free. MT63 is a very forgiving mode. You can do MT63 on VHF without a soundcard modem - 'acoustic coupling' works fine. meaning you can hold your HT up to the mic on your computer and copy it very well and do the reverse to transmit.

- ♦ **Thursday 8 p.m. ARES 80 Meter HF Digital Net**, 3583.5 kHz, Olivia 8/500
- ♦ **Daily M-F about 11:30 a.m.** - Repeater Of The Week - **Very Informal Morning Net** - If you show up and there is no net control, become one! The object of this net is to encourage more on-air activity.
- ♦ **Saturday 8:30 p.m. Iowa D-Star Net** on D-Star Reflector XLS632A
- ♦ **Sunday 7:30 p.m. Minnesota D-Star Net** on D-Star Reflector XLS632A
- ♦ **Sunday 8:30 p.m. Dodge County ARES Net** on the 146.820 (PL Tone 100) Repeater at 8:30 p.m.
- ♦ **Sunday 9:00 p.m. RARC/ARES Net:** 147.255 repeater (PL Tone 100) Odd numbered Sundays
146.820 repeater (PL Tone 100) Even Numbered Sundays



- ◆ Are you a member of the [ARRL](#)?
- ◆ Are you new to Ham Radio?
- ◆ Have you been licensed for a while but not active?
 - ◆ Are you active but never explored the [ARRL](#)?

RARC has been an ARRL affiliated club for the past 50+ years. RARC wants all members to know about the benefit of being a member of the ARRL and how the ARRL promotes amateur radio and represents and supports Hams throughout the year.

Here are two links you can explore to see what the [ARRL](#) offers Hams. Take a look:

- ◆ [ARRL Benefits](#)
- ◆ [The Value of ARRL Membership](#)

