



THE HAMSTER

December 2024

Official Monthly Newsletter of the *Rochester Amateur Radio Club*

Merry Christmas!





THE HAMSTER

December 2024

2024/25 Rochester Amateur Radio Club Officers

President: [Pat Hagge](#) (KEOWWG)
Vice President: [Dan Stroh](#) (NOSPN)
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Secretary: [Collin Howe](#) (AA0CN)
Member-at-large: [Steve Wiebke](#) (W0STV)
Trustee: [Gil Baron](#) (W0MN)

The Hamster is the official monthly newsletter publication of the **Rochester (MN) Amateur Radio Club (RARC)**. The Hamster is distributed via email free to members and non-members via rarchams@groups.io and is also available online in the club website: www.rarchams.org.

Rochester Amateur Radio Club was founded in 1932 and has been an **ARRL** (Amateur Radio Relay League) Affiliated club for 50+ years.

All members are invited to [contact the Hamster](#) with comments and/or questions. Additionally, members are encouraged to participate by submitting story ideas or content to the Hamster.

The Hamster has an *outstanding* regular staff of contributors and you are invited to join the team!

[G. Mark Kelm](#) (K0GMK) - Editor

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RARC Training Program

Dan Stroh (N0SPN) - Vice-President

December 10th 2024 @ 6:30 PM

APRS



Presented By Nate (KF0RMW)



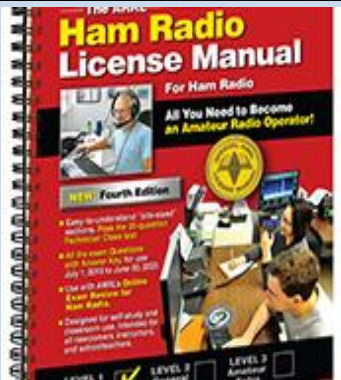
December 2024 RARC ZOOM Online Login Info

- *Optional for those not able to attend in-person* -



Below is the ZOOM login information for the December 10, 2024, 6:30 PM CDT RARC Meeting ZOOM . The ZOOM login info is also posted via the [RARC email reflector](#) prior to the meeting.

- ◆ **When:** December 10, 2024 @ 06:30 PM CDT (US and Canada)
- ◆ **Join Zoom Meeting (click on the link below):**
<https://us06web.zoom.us/j/9876548873?pwd=T0JBWEFzSCtBYzhiazA1NTdDb2Rkdz09>
- ◆ **Meeting ID:** 987 654 8873
- ◆ **Passcode:** : #####
- ◆ **For audio only from a mobile phone:**
Call: (312) 626-6799 US (Chicago) **Meeting ID:** 987 654 8873 **Passcode:** #####



Education

Dave (KØVH)

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!

2025 *Online ZOOM* Technician Class Schedule

Presented by: [Maple Grove Radio Club \(K0LTC\)](#):

- ***NEW HAMS*** - [TECHNICIAN LICENSE ZOOM Classes](#): Every Wednesday from Feb 5th, 2025 to April 9th. Class time: 6:45 – 9:15 pm (\$10 due first day of class) [purchase Technician Class License Manual](#)

To Register Click The Following Link: registration@mnyarc.org



125Live Ham Radio Club



Steve Wiebke (W0STV)

The 125live radio group is pleased to announce that we have two new ham radio operators.

They had not received their calls as of yet. This evening, I heard two other new ham call signs on the air from our last VE testing session. When you hear these new calls on our repeaters, make them welcomed when you hear them. 73

**Steve-W0STV
Olmsted ARES-EC**

The more preparation, the less confusion.



The next meeting of the 125Live Ham Radio Club sponsored by RARC will be December 17th at 125Live in the Technology Learning Center room at 2:00 PM.



ARES

Amateur Radio Emergency Service

All sheriff offices and EOC equipment have been moved from the old location on the east side of the Rochester fairgrounds, to a new location on St Bridges Road, just east of Fleet Farm This move took several weeks to complete and there is more that needs to be done. Our radio room still needs to be reassembled this winter. We will be updating and installing new communication modes with new computers. There will be a tour for all ARES and SkyWarn members at a later date once the work is completed.

Mark your calendars for December 7th to attend the NWS La Crosse storm spotter appreciation day event from 8:00 AM to 4:00 PM. There will be food and drinks, along with several HF radio stations already set up for you to make contacts with other NWS radio stations operating to make their contacts. You may make contacts from your own station to any NWS HF stations to help them to make a 50-state contact sweep.

The NWS La Crosse station is located at N2788 County Rd FA, La Crosse WI.

Fire station #2 needs of more space for new equipment. The Rochester EOC trailer will no longer be stored inside. It will be moved to an outside location. Electricity will be installed in the area to keep the batteries charged and the trailer ready.

The new Rochester EOC is still in the planning stage. Olmsted ARES has been involved with the planning. More information will be announced as it becomes available.

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**Olmsted ARES Mission Statement:
To be so effective that you are able to help others.**



ARES

Amateur Radio Emergency Service

The Olmsted ARES members last meeting for 2024 will be on December 21st with Fillmore ARES for a joint holiday party on the east side of Spring Valley at the Ambulance training and operations center. The time will be from 10:00 AM to 1:00 PM, there will be free food, drinks, and many door prizes. This is in appreciation for the time, and expense that both our county ARES members have made to each of our ARES organizations. Remember all you need to bring is yourself for a good time. A questionnaire will be posted on groups.io as to what pizza(s) and beverage(s) you would like for the party.

The Olmsted ARES group decided at the November meeting to take the ARRL Basic EmComm online computer course. This training will be a part of our meetings starting in 2025. Each ARES member will do their own training sessions and at the ARES meetings we will review the material together to make sure we all pass the course.

See the attachment below to get started:

[Basic EmComm | ARRL](#)

**Steve-W0STV
Olmsted ARES-EC**

The more preparation, the less confusion.

Olmsted ARES Mission Statement:

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

Contest Corner

Fred (K4IU)



The 2024 contest season fades away in December. However, there are three great contests to look forward to before the holidays. There are the traditional like the 10 and 160 meter and a new version of the FT Roundup named the **FT 4/8 Challenge**.

- **December 07-08:** [FT 4/8 Challenge](#) replaces the FT Roundup which ran from 2018-2023. A highlight of this new contest is that it uses the standard daily FT exchange of Grid Square and SNR, with distance-based scoring. Because the exchange is identical, contesters and non-contesters can freely and seamlessly work any station they decode in the FT sub-bands without concern if they are “in the contest” or not. Just about any FT software can be used due to the standard exchange definition. After the contest, export your ADIF log file and submit it to the FT Challenge Log Submittal webpage. More details can be found [here](#).
- **December 06-08:** [ARRL 160 meter contest](#) This a one of my favorite contests but I have trouble keeping my antenna up! This year I’m ready. The event is CW only. Logs are due within SEVEN (7) days after the event is over.
- **December 14-15:** [ARRL 10 meter contest](#) Even when we’re not at the peak of a solar cycle people love this contest because it’s easy to get on whether you do CW, phone or both. **This includes technician class licensees.** As a bonus we’re actually enjoying exceptional 10-meter propagation right now. If you’re thinking ahead and want to try out your 10-meter antenna, try checking into the RARC SSB 10 meter held Tuesday evening at 7 pm on 28.325 except on club meeting nights. Whether you’re troubleshooting or just want to rag chew newcomers are always welcome.

Contest Corner



Fred (K4IU)

Whether you're a new ham or an old-timer the 10 meter band (28 to 29.7 MHz) is always fun. If the band is open power is less important than you might think. Being loud is helpful but many hams operate QRP as Taylor (WB0RSJ) described at last month's RARC meeting. A good antenna is necessary. Common choices include Yagi antennas, vertical antennas, and dipole antennas.

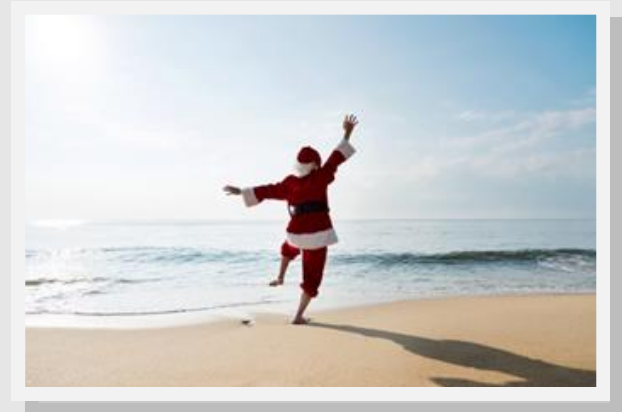
Yagi antennas are popular due to their high gain and directional properties, which can help in making long-distance contacts. Vertical antennas are good for their omnidirectional coverage and ease of installation especially in HOA communities. Many deed restricted hams use stealthy horizontal dipoles.

Building a 10-meter dipole antenna is a straightforward and rewarding project. Here's a step-by-step guide by [K7AGE, a popular YouTube channel to help you get started](#).

That's it for this month CU in 2025.

73

Fred K4IU





Parks On The Air® (POTA)

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?](#)





Hamster Hints

Let's talk about electrochemical cells—the little devices used to make up our everyday “battery packs” (remember, a “battery” is, technically, a group of cells, usually series-wired to increase overall voltage, but we often use the word in a vernacular way, too, when referring to an individual cell, and as a generalization). Like some other electrical devices, they have anodes and cathodes (and this article might make you think a little)...

By definition, an anode is the positively-charged electrode, by which electrons leave an electrical device. The cathode is the negatively-charged electrode by which electrons enter the device.

However, we might note that, for a battery-cell, this can sometimes seem “wrong” or “backwards.” The problem actually lies in the fact that these names (“anode” and “cathode”) swap battery-cell electrodes/terminals, depending on whether the cell is in charge- or discharge-state. They are tied to the chemical reactions happening within. Therefore, it is, instead, always best to refer to battery-cell terminals by their “polarity” names, i.e., “Positive” and “Negative,” which do not flip depending on the direction of the current flow.

Incidentally, it can be instructive to remember that it is the charging state that is the state in which the cell consumes the most power. In this regard, the “anode” is associated with the positive (+) terminal, and the “cathode” with the negative (-) terminal, just like some totally “passive” devices which have fixed terminals named “anode” and “cathode,” and which only (generally) *consume* power. (Other such devices that come to mind are an electroplating tank, a vacuum tube, and a semiconductor diode. In all three of these, we note that the “cathode” is the negatively-charged electrode, which *supplies electrons into* the device, and the anode is, indeed, the positively-charged electrode, which ab-

- continued on next page



Hamster Hints

So, the naming convention actually does work—and is thus consistent—as long as the battery-cell is being charged / consuming power.

In the discharging-state of the cell, the currents reverse, and the names of the electrodes flip, as well, because the chemistry “reverses!” Thus, it is usually best to stick with “Positive” and “Negative,” when naming battery-cell terminals, which always refer to the same terminals and do not flip!



Technical Committee

Eric (KF0S)

Tech Committee Meeting Minutes - 11/11/24

Attendees: Eric, Pat, George, Taylor, Steve, Darrel

Post meeting and RARC meeting comments in italics

Equipment Insurance:

- Club selected ARRL insurance during October meeting.
 - I sent out to the Tech committee and the Board several emails trying to identify our current inventory, and believe with a few exceptions it is done:
 - We are missing the repeater antennas, the antennas we have at Pat's for field day, the 125 Live antenna, the duplexer for the 146.625 repeater, and specifics on computers (I note that we want to replace the computers on the repeaters at Mayo soon). None of those items are on our current insurance list.
 - Pat, W0BM has a backup repeater to the 146.625 backup repeater.
 - What do we want to insure?
 - My thoughts would be the equipment listed for the 3 repeaters plus the digipeater as well as the station at 125 Live. We would leave the antennas and computers out, but could add later. For the EOC, I would list the Bird items, maybe the MFJ Analyzer?, as well as the radios. We wouldn't cover the backup repeater, the army mast or the other small items. If someone wants, I can create an insurance item spreadsheet with this subset.
 - *It sounds like we want to sell the backup repeaters and list the repeater replacements with new Fusion/DSTAR repeaters.*
- Who needs to fill out the website (<https://www.arrlinsurance.com/application/equipment/>)? I can certainly do that, but need some input:
- I assume the named insured would be the club.
 - The address could be our PO Box, and we don't keep the equipment there.



Technical Committee

Eric (KFOS)

- Do we make a specific tech committee email and just forward to the current tech committee chair? RARC email and George's phone.

- *I created the inventory as noted above and George has applied and we are now insured.*

Equipment Sales

- Bill Osler:

- Bill Osler's wife's donation to the club is currently being stored in two places: Antenna items in County garage, and the rest in a storage facility (Steve and I have access). Everything has been removed from her house, including on the roof.

- Do we want to continue doing this going forward? Need to have the board determine if there is someone who can do this work if the club decides to in the future.

Other:

- Digipeater is back on the UPS. John Scott has keys to get in, but still not a total second set. Eric has information sheets to place at Mayo. Will work with Darrel to get them there.

Respectfully submitted,

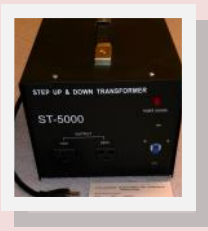
Eric - KFOS



RARC buy - sell - trade



Monarch "Super Sensitive" "Amateur Receiver" (yes, "Amateur" is mis-spelled on the faceplate), 4-band BC / HF radio. Nostalgic for me, and will pay well, according to cosmetic condition. **Bob (KE0EXE), gettuit@charter.net.**



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**



Astron RS-35M 13.8 volt power supply 35 amp peak, 25 amp continuous with volt and amp meters. Quiet linear supply, no RF noise, **\$150 Lynn (WB0U) (507) 358-8459**

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.



RARC Member Shack & Mobile Operating Photos



Bill (KE0ZIK) shack rig and peripherals all **for sale**. Contact Bill @ (507)990-3631 for details.



Lynn's (WB0U) mobile shack on wheels.



Lynn's (WB0U) mobile shack operating station.



Gil's (W0MN) shack.



Dave's (K0VH) shack.



Dave's (K0VH) awards (small subset) and real QSL cards (500 more on file).



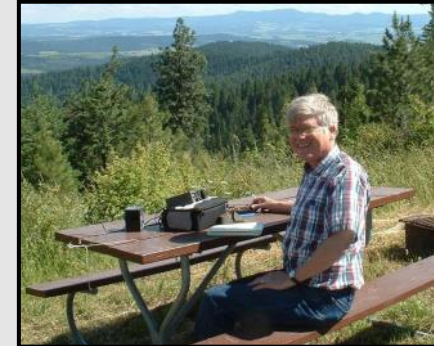
RARC Member Shack & Mobile Operating Station Photos



Niel (W0VLZ) SOTA Activation on Steptoe Butte near Spokane, WA.



W0VLZ's National NC183 with a Heathkit DX40, a 1950s novice station, and an Elecraft KX3 with PX3 panadapter, a current SDR station.



W0VLZ "QRP Station" at McCroskey State Park in northern Idaho a few years ago.



Pat (KE0WWG) POTA operating at his family's lake cottage.



Pat's (KE0WWG) mobile POTA operating station in the back of his vehicle.



Pat (KE0WWG) operating 2 meter mobile.



RARC Member Shack & Mobile Operating Photos



Mark's (K0GMK) HF Shack.



Mark's (K0GMK) QRP station in his shack.



Mark's (K0GMK) mobile patio operating location with portable Dipole antenna

The Hamster plans to continue to this section each month. **Please feel free to submit your shack/mobile operating location photos and brief description** either via rarchams@groups.io or directly via email to the [Hamster editor](#). Please feel free to contact the Hamster at the [Hamster editor email address](#) if you have any questions, concerns or comments.



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.
- ♦ **UPDATED Wednesday 7 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 benefits of being a member of the [ARRL](#) and how the [ARRL](#) promotes amateur radio and represents and supports Hams throughout the*

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

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



Contact RARC

RARC meets the second Tuesday of each month at 6:30 PM (except when the August meeting is the annual RARC club picnic) in the lower level of Rochester Fire Station #2 in the EOC at 2185 Wheelock Drive NE, Rochester, MN

- ◆ **Website:** <http://www.rarchams.org/>
- ◆ **Mail:** RARC , P.O. Box 1, Rochester, MN 55903
- ◆ **Groups.io:** [Register](#) to post and receive RARC official email
- ◆ **Weekly Net:** **Sundays at 9:00 PM:** **147.255 repeater** (PL Tone 100) **Odd** numbered Sundays
146.820 repeater (PL Tone 100) **Even** Numbered Sundays

If you haven't done so already, please [register](#) for the RARC groups.io email reflector so you can keep abreast of club activities, official club notices and of course the monthly Hamster emailing. Click on [register](#) and you will be taken to the RARC registration page. Once you have [registered](#) go to your account settings and choose how you would like to receive email from RARC.

Newsletter articles or questions: Mark (KØGMK) - Editor gmkelm@charter.net