

# THE HAMSTER

### October 2023

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

**Mel's/KCOP/R October 10th RARC program** will be an **extension of our Septembers program "The 10 worst antennas to have"**. If you are interested in understanding more antenna technology beyond SWR and propagation, you will not want to miss this very informative session. Do you know what the benefits of a terminating resistor on the end of a wire antenna are? Why are there so many different ratio baluns? This and many more questions will be answered. We need your input on what you want for your November program. You joined the club for activities and support, and we want to make sure we try to fill your requests.

**This is my last year as your club president, and Taylor will not be vice president after this year**. The Club needs a nominating committee to find people to fill these positions for 2024. The club candidates for RARC office are to be presented to the membership at the November meeting and be voted on at the December meeting. With 97 members in the club filling these positions will be easy.

**The club will be reviewing membership dues and discuss possible changes**. RARC bylaws dictate we have to post the proposals from the October RARC meeting for the members to review and vote on the proposal(s) at the November RARC meeting. Watch for it.

**The 125Live Ham Shack is coming to a completion**. This has been and still is a hard process due to so many factors from 125Live and the RARC to meet. We just need several more hours to complete the installation. Once the station is operational, we will need sit down with the Ken, the 125Live director, and come up with an S.O.P. on how it will be maintained, used and monitored. But first things first. Watch the <u>RARC</u> groups io email reflector for requests and updates.

**Like our June field day event, our January winter field day needs to be discussed**. The club is looking for a building that we can use along with the ARES trailer. I am looking for ideas. Chester Woods, KOA, and Oxbow have been contacted. They close down in October and do not open until the following spring. Game Haven has been proposed. I should have a report for you at the October club meeting. If you can think of another place let me know. If nothing else works out, we may use Fire Station #2.



## PRESIDENT'S MESSAGE

Steve (W0STV) - President w0stv@yahoo.com

**I know the digital repeaters are an issue for some**. I understand that we have lost support people on these repeaters along with the Mayo contacts to access the two repeaters on top of the Gonda building. The Tech/Knowledge of these repeaters has and is changing. People like Eric/KF0S, Brian/W0AMX, John/N0HZN, and Taylor/WB0RSJ and others have stepped up to learn these digital repeater systems and are rebuild the contacts within Mayo for the RARC. For these people to take their time to make a difference to get these digital repeaters fully operational, you need to support them. If not them, then who of you will do it?

**There is an estate sale planned for silent key Gary Perterson's/N0ZOD's equipment on October 21st**. Gary was a long-time Ham radio operator and a tv news reporter. To help his wife Gladys sell these items, there will be an estate sale in their home with free tailgating for anyone in a lot next to their home in Spring Valley MN. Will be updates on the RARC reflector soon. Talk in frequency is 147.015 PL 110.9

Reminder any Ham radio operator may join our radio clubs groups.io <u>email reflector</u>. No membership required. Go to: <u>rarchams.org</u>, click on club information tab and pick the io email link at the bottom of the drop-down page. Follow the instructions to subscribe.

73

Steve Wiebke/W0STV

RARC president The more you know.



### RARC TRAINING PROGRAMS

Taylor (WB0RSJ) - Vice President

### October 10th 2023 @ 6:30 PM



# **10 GHZ**

## **Presentation & Demo**

Mel Larson (KCOP/Rover)

RARC welcomes and encourages members to present topics like contesting, Kit building, amateur radio software, etc., to the members at RARC monthly meetings. This is your opportunity to share your expertise and help other RARC members grow their Ham radio skills. Please contact any of the club leaders and let them know what topic you would like to present.



### October 2023 RARC ZOOM Online Login Info optional for those not able to attend in-person



Below is the ZOOM login information for the October 10, 2023, 6:30 PM CDT RARC ZOOM . The ZOOM login info is also posted via the RARC email reflector prior to the meeting.

- When: October 10, 2023 @ 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: ######



## 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 onair 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





### AMATEUR RADIO EMERGENCY SERVICE

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

As your Olmsted ARES EC I focus to support our ARRL ARES served agencies. In Olmsted County we are in what I call a no-danger zone. No huge disasters like hurricanes, typhoons, tsunamis, earth quacks, or wildfires, and the damage to infrastructure that this cause. We have a Derecho once in a great while, a tornado now and then and some localized flooding. But besides SkyWarn, not much else.

**Rochester CERT** (citizens emergency response teams) does not exist. and that leaves an information void. Olmsted ARES needs to think outside the box. How do we do this? One way is by more hams being proactive after an extreme event by investigating your neighborhoods and in the country looking for damage, transportation blockages, etc. Even if you're not a storm spotter or ARES, this is important information for the EOC's to know ASAP.

When there is an organized search as happened for Madeline Kingsbury, we need to know how to work using our communications to be effective to a public agency like the Sheriff's Office. Their 800 MHz radios did not work sometimes! We did this in the past we can do it again. It's how we use our human resources not just our equipment to make a difference. In the next few months, we will be learning damage assessment again. Will learn and train how to deploy with public service groups, organized transportation and relay field reports. The focus will be on our numbers and how fast we can deploy with our equipment that will make a difference.

**The check ins for the ARES Sunday night nets are very good**. You have asked for more activities with these nets. We will have random radio activities after the ARES main net has ended. These will NOT be announced ahead of time but during the net. They will be random from one or more a month.

We have expanded our emergency information gathering formats to include communications using the following links:

• WinLink VARA software email using w0mxw@winlink.org on 147.710 simplex (free computer sound card software downloads and your radio) ID's to w0stv-10.

**Olmsted ARES Mission Statement:** 

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





### AMATEUR RADIO EMERGENCY SERVICE

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

- **APRS messaging using the Pinpoint APRS program** on144.390 simplex (free download does RF radio with a TNC and/or internet gateway monitoring simultaneously)
- **FLdigi** digital computer to computer messaging on any simplex or analog repeater (free download needs radio and computer using caustic coupling)
- **EchoLink** program on node #420993 on 147.255 repeater for radio-to-radio voice communications via internet (no program needed for radio use)

There are more but these are the systems that are used by ARES groups nationwide.

The general email to <u>w0mxw@yahoo.com</u> is Olmsted ARES easiest, and quickest way to transfer files, pictures and general emergency information from your computer, phone or tablet to an ARES, SKYWARN or any NCS operator in either of the EOCs or served agency when speed and accuracy is required, **but** the Internet needs to be operational.

The RF email to <u>w0mxw@winlink.org</u> is used when the internet is down, and radio to radio with computers or a smart phone app is used to send and receive email messages.

*Note: Always remember voice over radios is the first and fastest information at the beginning of any disaster.* Computers using radios will be implemented later when agency specify documents and the use of ICS forms.

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.



## HAMSTER HINTS

Bob (KEØEXE) gettuit@charter.net

**This month, I fall-back ;-) on some useful observations about alkaline-battery cells**. (I mentioned some of these at a RARC meeting, earlier this year. As those attending might remember, I "collect" lightly-used AA cells, to power my base-station radio equipment......I have thousands.)

The source of corrosive damage for this type of cell is the leakage of chemicals from the vent hole(s) at the negative terminal. You will never see corrosion damage on the positive terminal, unless it has "migrated" from a neighboring cell's negative terminal, etc. There are never any vent holes at the positive terminals, from what I've read and observed.

When storing used cells, be sure they are well-ventilated. The usual thought is for safety, to prevent an explosion (due to accumulated hydrogen gas). However, another very good reason is that cells that are stored in small, air-tight containers generally seem to degrade much faster than cells that have good air-flow around them. This is at least true for the AA and AAA sizes. I believe that, in air-tight containers, corrosive gases leak from the "bad" cells, concentrate, and then speed the corrosive processes on (and in) neighboring cells.



Storing used, alkaline, AA cells, "vent-end up."

-continued-



## HAMSTER HINTS

Bob (KEØEXE) gettuit@charter.net

**I store all my used AA cells in shallow boxes (printer toner box-ends, cut-down to about 2.1" in height).** All the positive (+) terminals point downward, so I can easily visually-inspect the exposed, negative (-) terminals, for corrosion. I also lay a piece of aluminum foil in the bottom of the box, first, with a "tab" piece coming up to the top, on one side of the box. I can then clamp-on to this (+) tab, with a DVM, to quickly probe the exposed, "pointing-up" terminals (-) for individual cell voltage, when I occasionally check the cells. I simply discard the relatively few that have totally died during storage, and replace with a "less damaged," used cell. I store my cells at room temperature, as this is convenient.

Corrosion does not seem to be much of a problem with the modern C and D-size cells, although I think, possibly the venting mechanics could be slightly different.

Though not rechargeable, alkaline-cell technology does pack a punch, for the cost. Long-live the [ever-evolving] "dry cell."



## **CONTEST CORNER**

Fred (K4IU) k4iu@me.com

**There are several major ham radio contests in store for us this month**. There is a good reason for this. Propagation conditions are typically excellent during this time of year. The Earth's atmosphere is more stable in October, which means that radio waves can travel longer distances without being absorbed or scattered. This makes it easier to make contacts with other hams all over the world. Be sure to pay attention to 10 meters during the international contests this month. You'll be pleasantly surprised.

The first first

**Let's get started!** October kicks off with the <u>California</u> <u>QSO party</u>. This is one of the most popular of the state QSO parties because of all the participants and some really cool prizes in addition to the usual certificates.

Thinking of boosting your DXCC country totals? There is no better opportunity than the <u>CQWW SSB</u> contest at the end of the month. You should definitively read the rules for this contest. In between these October weekend anchors you'll find a great assortment of fun contests such as the <u>Oceania DX contest</u>, <u>Scandinavian Ac-</u> <u>tivity contest</u> (SAC), <u>JARTS WW RTTY</u> and one of my favorites, the <u>Worked All Germany Contest (WAE)</u>. These contests will attract a large number of participants making every weekend a contesting opportunity.

Check them all out on the <u>WA7BNM</u> calendar.

CU on the bands





Eric (KF0S) - kf0s@yahoo.com

The RARC Technical Committee meeting was held on September 11th, and went for over an hour, so some minor topics weren't covered.

Attendees: Eric, George, Mark, Steve, Taylor, John D., Collin

\* Post meeting and RARC meeting comments in **italics** 

### **Donation of W0IBM equipment:**

- The Rochester IBM Club station is being removed as IBM is no longer leasing that space. We have permission to donate items from the station to the Rochester Amateur Radio Club. We have to remove the items we want by October 13th.
- We should be able to remove antennas from the courtyard at a later date. Maybe best to try and remove what we can as soon as possible. *Eric to check if we can tilt over the tower (is a pine tree in the way?).*
- TA-33 tri-bander (with WARC), 6m beam, 2 2m beams (1 each H and V polarization), and a 2m vertical. All are old, but the tri-bander might be a replacement for the clubs other beams for Field Day.
- We have a spreadsheet of the items several of us thought made sense to transfer. Dave Naatz worked on assigning some values to that equipment.
- We need a place to store the items. It was decided we can use some space at the City EOC. We will need to bring in a sheet of plywood or two (the floor is sand in that area) and 8' conference table(s).
- We can create a special Hamster issue to publicize what we have available. We have pictures now.
- Dave has placed a Bird Wattmeter in the City EOC for people to sign out.
- Some items will be given away as monthly prizes.

#### What to do about Mayo repeater site access:

• Getting access has been very difficult recently.



Eric (KF0S) - kf0s@yahoo.com

- John Scott retires mid Dec (going on PTO the beginning of Nov). He is the only club member with a key to access the site. BJ is no longer a club member and hasn't been available for a while.
- John Scott retires mid Dec (going on PTO the beginning of Nov). He is the only club member with a key to access the site. BJ is no longer a club member and hasn't been available for a while.
- John has identified one of Mayo's radio people, Andy, who would be willing to get us up there with some prior notice and might be willing to stay around for a bit if we let him know ahead of time.
- Mayo has severely restricted who they will give assign keys to. Taylor to check with Andy to see who we can talk to and come up with a plan. Taylor can get badge access and a key and that process is started. Will leave us with Taylor as primary contact with Andy as a backup. Note the Taylor does not work on site at Mayo so some access planning is still needed.
- I recall discussion at one point that Mayo may be moving all the equipment with some additional construction in the future. I'm not sure if that might still be on their calendar or when it would happen. Would they move us at that point or would we be out?
- Nothing recalled by group.
- I recall discussion in the past about other repeater sites around Rochester (I believe we were looking to move the 82 repeater).
- At that point, nothing was found and it stayed where it was.
- If needed, could we move the two Mayo repeaters to the 82 site? There certainly seems to be room in the shed. Not sure if they would allow us to install the antennas on the tower or how overall coverage is affected as we loose the downtown site. We would need internet at the site as well.
- Some discussion of other sites. Security was a major concern.
- Internet connection from Ozmun building. *Demolition possible 1Q2024? Trying to see if it's really that quick.* An email thread with the network person at Mayo, also a ham, and the expectation is we will lose any internet access we have as DSL will go way with Ozmun if not sooner. It does not sound like beaming something to Mayo is in the cards either. More committee discussion upcoming on this.



Eric (KF0S) - kf0s@yahoo.com

### 443.85 D-Star repeater:

- We still haven't gotten the Gateway Server back at Mayo with access issues.
- Discussion on main reflector: 30C was decided back in March.
- g2\_link software to allow access to XRFxxxX and DCSxxxX reflectors was asked. There are no published instructions and there is one person who can install the software after getting access to the machine.
- Will push to get some prolonged access to the Mayo site in October to get the Gateway Server back in place.

### 146.625 Fusion repeater:

- In July, we noted that analog/digital were working fine.
- I had heard reports of some issues and at the August picnic, we tried some experiments and started wondering if there was an audio issue out to the rooms.
- I haven't heard anything since then about problems, so maybe that was a fluke, or maybe it really is down.
- Taylor and I wanted to check the repeater. There is no remote access to the Fusion PC as remote access was through the gateway server, and we still haven't got that put back.
- Taylor and Pat tried again at the September meeting and confirmed the issue was still there.
- We spent some time trying to work through the Mayo access issue, we only wanted 15-30 minutes access and had hoped to re-introduce Taylor to the site. Timing didn't work so Pat and Eric met with John Scott to figure out how the site was laid out and verify the Fusion system. Note that Yaesu system uses a small box that sits between the repeater and an internet connected Windows box, instead of the whole Icom Gateway Server setup, making this extremely simple to setup/debug. The problem was solved, Pat sent a note to <u>groups.io</u>, and Fusion should be fully operational again. Some follow-up emails say things might not be perfect. Discussion if Qwest could be limiting traffic out of the US. We now have remote access to the Fusion Windows PC as well, so hopefully can debug remotely next time.



Eric (KF0S) - kf0s@yahoo.com

146.82 repeater:

147.255 repeater:

### **Rochester EOC facility and computers:**

#### 125 Live:

- Still need a date from 125 Live and get antenna installed on the roof, finishing coax, etc.
- Tues or Thursday's Sept 26/28 or Oct 3/5. 4 max. 2 hrs max.
- Date weather permitting.
- Sign-up sheet at meeting.
- Steve has a date, Sept 28th, and sent a note to <u>groups.io</u> to get help for this.

### **Other Items:**



### **125LIVE RADIO**

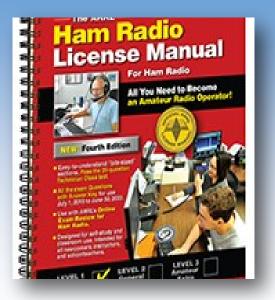
### PROJECT



### Steve Wiebke (W0STV) w0stv@yahoo.com

The 125Live ham station is ready and waiting to become operational. We have been notified that the HVAC project is completed and it is now time to for the installation of antennas an connection of coax. This will take place in October. Watch <u>RARC groups.io</u> for updates. The TLC/Technical Learning Center room that the Ham station is located in is being transformed to a high-tech AARP senior computer learning center. The room will now be locked when not in use, because 15 new laptops are now stored and used in the room. The room was never locked before now. There are two locks to access the Ham radio station. Both are touch coded. This has the benefit of being more secured, allow privacy to operate, and will be better for scheduling our radio activities. Now planning for activation of the station can commence and further planning and discussion with take place at the October RARC meeting.





## **EDUCATION**

Dave (KØVH)dcnaatz@gmail.comBill (KORGR)k0rgr@arrl.net

- **RARC is endorsing** the <u>Maple Grove (MN) Radio Club (K0LTC) online education program</u> working with Benton (K0BHJ). They are planning for Technician classes beginning February 6th, 2024, and have other license classes available at other times. Check the link above for more information.
- **RARC will also offer mentoring support** to any locals interested in getting their license. Please email <u>Dave</u> (KOVH) or <u>Bill (KORGR)</u> for more information.
- Check out the YouTube videos for new license training from <u>ARRL</u> and <u>Dave Casler</u> (KEOOG) There are a LOT of videos, and follow the ARRL License Manual for each class. <u>https://learn.arrl.org/courses/?</u>
   <u>pathPage=%2Farrl%2Fcourses</u>
- 73 Dave Naatz (K0VH) Bill Osler (K0RGR)



## JM ROCKET RADIO CLUB

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

As we are wrapping up summer break, the school radio club continues to be quiet. School starts for teachers on August 21st with Freshmen (9th graders) starting August 28th for orientation and induction to "High School" life. 6th graders and kindergartners have a similar day in their respective schools to help with the transition. The rest of the students start 29th with a long holiday weekend of Friday - Monday for Labor Day. Then the year is in full swing.

At the end of the school year, a staff member in charge of promoting school clubs and activities to the incoming classes had contacted me about having a table to promote the ham radio club. However, there has not been any further communication over the summer, so I don't know which day or week this will take place.

### **Opportunity for RARC Members to Volunteer:**

When I know about the school club promotion day, I'll also find out if I can have volunteers come to promote radio. I'd be looking for a couple people to have a remote radio station set up and demonstrate radio contacts: one to make contact, one to describe action and answer questions. I'd also like someone to show fox hunting. (Students can stand in a circle with one holding the "fox" behind their back while another student in middle of circle tries to locate using a radio). Because this would be a quick introduction, it's superficial and fun.

Again, I don't know if it's indoors or outdoors, during school hours, lunches or after school hours. So information will be shared by the organizers around back to school time (hopefully) and I will need to act fast on it.

What to do NOW if you are interested in helping out at John Marshall throughout the school year:

All volunteers coming to John Marshall HS must complete the Rochester Volunteer forms at this site: <u>get-involved</u> Scroll to middle of page and click on blue button that says "Volunteer" to complete. This needs to be completed each school year, so if you volunteered before, please do this again.

I've been told there are some new freshmen coming to JM that have radio experience/interest. This excites me! The seniors that are still in my club expressed an interest in taking control / leadership in the club for this coming school year, which has been my hope. I do know that they are students involved in many activities, so I'm cautiously hopeful.



## Parks On The Air <sup>®</sup> (POTA)

Mark (K0GMK) gmkelm@charter.net Hamster Editor

**Perhaps you've heard talk on the repeaters** or on one of the Nets about <u>Parks On The Air (POTA)</u> You might be interested and think that it could be **fun to operate your rig and antenna remotely in a beau-tiful 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 <u>rules</u>.

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

### Did you know that there is a POTA entity in Rochester?

Take a look at the <u>map of entities</u> to see the wealth of entities to activate close to Rochester as well.

POTA is a great way to enjoy Ham radio and enjoy the bonus of being outdoors!





## RARC BUY OR SELL

### 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 269-5254 Price: \$600.00 OBO



### Icom ic-7410 HF/60 MHz Transceiver

160m-6m. Full power into dummy load. Comes with mic, DC power cord and printed user manual. It does not have either optional roofing filter. Cash only.

Rob (KE0PWN) rgolley2@hotmail.com Price: \$650.00



**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 (KOSIR) red@bobdubke.com (507) 398-5964

### MFJ-4602 Window Antenna Coax Feed-Thru



Contains three coax, one balanced line, one single wire and one ground feed thrus. Only used one weekend. Width cut down to 35.5 inches. **Price: \$20** 

*If you have any Ham related items that you want to sell or are looking for locally, email the Hamster at* <u>*RARC Buy or Sell*</u> or Trade.



- Are you a member of the <u>ARRL</u>?
- Are you new to Ham Radio?
- Have you been licensed for a while but not active?
- Are you active but never explored the <u>ARRL</u>?

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 <u>ARRL</u> offers Hams. Take a look:

- ARRL Benefits
- The Value of ARRL Membership





RARC meets the second Tuesday of each month at 6:30 PM in the lower level of Rochester Fire Station #2 in the EOC at 2185 Wheelock Drive NE, Rochester, MN

- Online <u>http://www.rarchams.org/</u>
- Mail: RARC , P.O. Box 1, Rochester, MN 55903
- Email: If not a member, <u>register</u> and a Moderator will respond shortly
- 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
- Facebook: <u>Rochester Amateur Radio Club</u>

If you haven't done so already, **please** <u>register</u> 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 <u>register</u> and you will be taken to the RARC registration page. Once you have <u>registered</u> 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