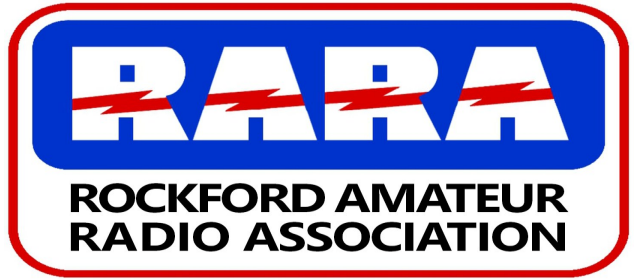


# HAMRAG

Visit our website for more club and area ham information at <http://w9axd.org>, or join us on Facebook at this [LINK](#)



## RARA Mission Statement

A member association with common interest of public service to the community through the use of amateur radio.

**RARA is a volunteer run organization** of individuals donating their time each month to develop activities, maintain repeaters, nets, and education. There are associated expenses and when you become a club member, your dues are providing a service to your community and furthering the hobby of amateur radio.

## Welcome New Member!

Paul Dean, WB9HGZ

## Thanks to all renewing members!

**Many thanks to** John Kruk, N9UPC, from Yaesu USA for the very interesting presentation of Yaesu System Fusion & Wires-X at the November monthly meeting.

*From Dennis Johanson, K9VMY*

December 12, 1901 – Italian physicist, Guglielmo Marconi, succeeds in transmitting the first trans-Atlantic radio message. His critics said radio waves would not follow the curvature of the Earth. Marconi disagreed.

That was just 123 years ago. Think of the progress we have made since then! Just imagine what could be in our future as we continue to move forward!

## December 2024

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# Merry Christmas!

## NEXT MEETING—NOTE MEETING ROOM CHANGE

FRIDAY— December 13, 2024 - 7:00pm

OSF St Anthony Med Center (**Hickey Board Room**)  
5666 East State Street, Rockford



**When entering through the main entrance of the hospital, walk through the lobby toward the gift shop. Take a right at the gift shop. At the end of that long hallway, the Hickey Board Room will be on your right.**

## Local Events and Information

Tuesday, December 10, 2024 RARA Board Meeting 7:00pm on Google Meet  
Friday, December 13, 2024 RARA Membership Meeting 7:00pm

### 2024 RARA Officers and Board

#### **Officers:**

President - Tom Shouler, N9VJU, 815-633-0089, [n9vju@comcast.net](mailto:n9vju@comcast.net)  
Vice President - Larry McFall, KD9HKX, 815-900-1820, [lpmcfall@charter.net](mailto:lpmcfall@charter.net)  
Secretary - Larry McFall, KD9HKX, 815-900-1820, [lpmcfall@charter.net](mailto:lpmcfall@charter.net)  
Treasurer – Verna Schubert, KD9YUM, 815-505-8170, [schubie2@charter.net](mailto:schubie2@charter.net)

#### **Directors:**

Dan Larson, KD9SAZ, 312-292-1989, [kd9saz@gmail.com](mailto:kd9saz@gmail.com)  
Larry Lisle, K9KZT, 815-397-9595, [l.lisle@usa.net](mailto:l.lisle@usa.net)  
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Repeater License Trustee - Gordon Seaman, KC9NEX, 815-262-0294, [kc9nex@gmail.com](mailto:kc9nex@gmail.com)  
Repeater Chairman - Kurt Eversole, KE9N, 815-389-2784, [kurt.eversole@gmail.com](mailto:kurt.eversole@gmail.com)

#### **2025 Board of Directors:**

President - Larry McFall (KD9HKX)  
Vice President - Matt Marshall (W3MBX)  
Secretary - Secretary, Joe Perry (K9JPP)  
Treasurer - Verna Schubert (KD9YUM)  
Director - Jimmy Curtis (KC9GOL)  
Director - Dan Larson (KD9SAZ)  
Director - Mike Richardson (KB9SSV)  
Director - Tom Shouler (N9VJU)

#### **Editor's Note**

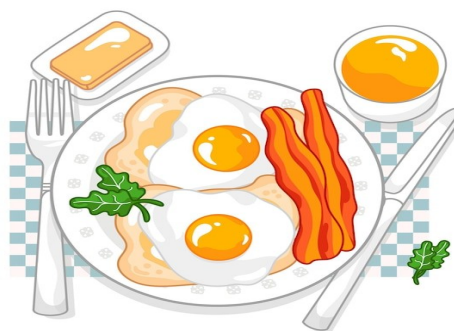
If you would like to have something published, please call me at 815-505-8170,  
or email me at [vernas.kd9yum@gmail.com](mailto:vernas.kd9yum@gmail.com)

**Articles are welcome and encouraged from all hams.**

**Due Date for the January 2025 Hamrag is Saturday, December 28, 2024**

73, Verna—KD9YUM, Editor

## Local Events and Information



### FRIDAY MORNING BREAKFAST

Meets every Friday morning from 7:30 am until about 9:00 am.

We order breakfast at 8:00 am.

An informal gathering of ham folks, no affiliations necessary, good food and good company.

*Everyone is welcome to attend.*

***“The Spring Garden Family Restaurant”***

***4820 N. 2nd Street***

***Loves Park, IL 61111***

### Local Net Information

- Mon** - 7:00pm - RARA Info. Net & CW Lesson, 147.195 (+0.6) offset, pl 114.8  
- 8:00pm - McHenry County RACES Net, 146.835 (-0.6) offset, pl 91.5
- Tues** - 7:00pm - RARA Tech & Social Net & CW Lesson , 147.195 (+0.6) offset, pl 114.8  
- 7:00pm - Rock County Public Service Net, 145.450 (-0.6) offset, pl 123.0
- Wed** - 7:00pm - RARA Chat Net, 147.195 (+0.6) offset, pl 114.8  
- 7:00pm - Stephenson Cnty. ARES Net, 147.390(+0.6) offset, pl 114.8  
- 7:30pm - Greater Beloit Radio Net, 147.120 (+0.6) offset, pl 123.0
- Thu** - 7:00pm - Northern Illinois Skywarn Training Net,147.195 (+0.6) offset, pl 114.8
- Fri** - 8:00pm - Friday Night Fun Net, KC9GCR, 147.195(+0.6) offset, pl 114.8
- Sat** - 8:00pm - Saturday RARA Ragchew Net, 147.195 (+0.6) offset, pl 114.8  
- 8:00pm - Pink Hamsters YL Net, Milw., 146.910 (-0.6) offset, pl 127.3  
- 9:00pm - Saturday Night Fun Net Milw., 146.910 (-0.6) offset, pl 127.3
- Mon. thru Friday** - 8:00am to 9:00am - Senile Net, 14.287 (HF USB)

[Home](#) [About](#) [Check In](#) [Santa's List](#) [Live Stream](#)



The **Santa Net** is held every evening between Thanksgiving and Christmas on 3.916 MHz at 7:00PM Central Time (check-ins open 1/2 hour before).

**Share the magic** of Ham Radio and Santa Claus with your children, grandchildren, and neighborhood kids.



## What have you done for the FIRST time in amateur radio THIS year?

### **Matt Marshall, W3MBX**

10 meters. I've never been on 10m, frankly because the other bands have been more active. I hit a lot of DX on 10 when the band opened up. PSK31. I got a modem & make some contacts, it's pretty cool, better than RTTY. The neat thing is the upper & lower case and the ability to back space.

### **Jimmy Curtis, KC9GOL**

Well, first time - lets see. It was a slow year.....

1. JOTA, I made 2 hf contacts 40m. 2 or 3 contacts with KC9GCR.
2. Joined the board of STATELINE AMATEUR RADIO SERVICES.
3. Put up Larry and Verna's first tower....

Well, that's all!

### **Mike Richardson, KB9SSV**

This is KB9SSV, this is the first year I participated in the CQ worldwide radio contest which was the last weekend in October. Solar cycle 23 is on the upswing so I took advantage of this and made 200 contacts within the span of 4 hours some of the morning and some of the evening I got Africa, Russia and some Arab stations in the morning and Japan, Korea and a few islands in the evening in the Pacific. Got four new countries to add to the QRZ list. Basically with these contacts they only want your call sign and CQ zone so it's real easy. Most of the contacts were on 10 and 15 meters few on 20, next year we will be right in the middle of solar cycle 23, I'm going to make sure I don't miss that weekend. So anybody that wants to make any DX contacts and a lot of them, make sure to participate the last full weekend in October for the next couple of years on 10 and 15 and you will have some new countries guaranteed to add to your QRZ list.



### **Larry Lisle, K9KZT**

- \*Started Wednesday Chat Net, March 6, 2024
- \*Made a presentation at RARA Meeting
- \*Built several new receivers and QRP transmitters
- \*Submitted articles for HamRag

### **Daniel Larson, KD9SAZ**

Simple, caring enough about Amateur Radio and Emergency Services to help solve many issues seen within our service area.

### **Greg Niles, K9GJN**

Worked China on 12-meters

## What have you done for the FIRST time in amateur radio THIS year?

### **Larry, AC9GO**

One thing is for sure, our first tower and 3-element beam antenna are getting a workout and I greatly appreciate all of the work of Jimmy Curtis, Dan Larson, and Jeremy Gruner along with many others to make it a reality! This has been my first year of really sharing my ham shack with my loving wife and now a full fledged Ham with a general class license—that is certainly an experience! We'll be sharing more on that topic in a future issue of the Hamrag.

73 & 88

### **Verna, KD9YUM**

Everything has been a first for me!

Chasing DX, Contesting, POTA Hunting, Winter Field Day, Summer Field Day, Tower and Beam Antenna, with *many* thanks to Jimmy Curtis, Dan Larsen, Jeremy Gruner and many others. Setting up a logging program (N3FJP),

Joining four radio clubs, RARA, GBARC (Greater Beloit Amateur Radio Club), the Madison DX Club, and the YLRL, getting my own rig (Yaesu 991A).....the list goes on and on and will continue to grow as I have a lot to learn! The best part, though, is the friendships I have made and all of the interesting fellow hams that put up with me and teach me!

## The Mailbag

I was a RARA member in the 70s and early 80s having earned my license through a RARA sponsored course in 1971. I have been keeping up with your activities via the website since I relocated to Virginia in the early 90s. I have noticed recently that the club has really taken off, seemingly recovering from somewhat of a downturn in the late 80s and early 90s. Although distance precludes me from being an "active" member, I'd like to support your efforts with my dues and perhaps another ARRL member will help keep your percentage up. We still have family in Elgin and visit the area periodically. If one of our visits corresponds to a time when you are holding an activity or meeting, I'll be sure to stop by. **Best wishes and 73, Paul, WB9HGZ**

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### **From Dave Gauger, W9CJS**

My 4 year-old grandson (now 28-yrs), Nathan, enjoyed using my Flight Simulator, but was scared by the noise if he crashed. Being a pilot I had outfitted the computer with a control yoke, rudder pedals, throttle quadrant and a full throated sound system complete with sub-woofer. If you crashed, the noise was significant and Nathan was scared by the noise.

When he was flying .. if a crash was imminent, he'd get down from his stool and scoot around the corner to an adjacent room and watch from there holding his ears. On one occasion he decided that I should fly but he'd be the co-pilot and the communicator so to speak.

Gear down ... flaps 20 ... reduce power ... set trim for 90 knots ... and we turned final to land.

We landed safely, so I said to him, "Nathan, you're the co-pilot so why don't you call the tower and let them know what we need."

Nathan: "OK ... uh... tower we need one hundred thousand gallons of gasoline .... and two popsicles!"

## uSDX 8-Band All Mode QRP Transceiver by Chris Green, N9OEG

*Editors note: Recently at one of the ham breakfasts, Chris showed us this little baby transceiver. It was quite fascinating and I asked if he would write an article about his experience testing it out. He graciously agreed!*



I purchased this radio via eBay for about 116 dollars as a toy and as a possible for use along with my older low powered Kenwood radios portable. I was attracted by the compact size and the low power consumption where my old Kenwood's had power hungry fluorescent displays, which draw a lot of current, thus killing my battery quicker. This radio can be run with 1 amp from a wall-wart that I had from an old Linksys router that I had retired some time ago. The Kenwood's needed at least 3 amps to power. This radio's stated power output is 3-5 watts, which is favorable with the use of an efficient antenna. My Kenwood's rated output power is 10 watts, there is a difference of 1 S-unit on the receiving end of the QSO, but hopefully this can be partly made up by the antenna. The receiver is good; however, AM performance is not so good for

listening to shortwave broadcasts where the audio is somewhat clipped and truncated. The use of USB/LSB is much better when zeroed into the AM signal.

There is a built-in speaker, which is weak and hard on the ears to listen to for any length of time. Sound is better with the use of a decent speaker-mic, and the one supplied is not that mic. I have replaced the speaker-mic with a Baofeng, one of better quality. For the best performance, use headphones where the volume is strong and clear. The jack for the headphones is located on the front panel labeled HP.

Tuning can be cumbersome when having to deal with the menu every time for such trivial things like volume control, mode, and band. There are 2 white buttons on the front which makes this a little easier compared to older versions of this model. The white buttons are for Menu, and Mode. The knob can also be pressed for quick access to the tuning steps of the VFO. This is where most other radios have these controls on the front panel for ease of operation. This does get better with practice where items can be found in the menu quicker, however, it is still not as fast as physical controls. I have found that the radio can be tuned to many bands, the receiver is not good on anything above 10 meters, it is deaf as a post. Below 80 meters is also a no-fly zone because of so much noise.



## uSDX 8-Band All Mode QRP Transceiver by Chris Green, N9OEG



I have found that transmitting on 10, 12, 15 meters, there are some mixing artifacts that sneak into the audio of the transmissions which resemble a distant machine gun in the background, more so on a dead key. This is most noticeable on AM and FM. The sound gets more subdued the lower you go in frequency. For transmissions at 17-80 meters this issue is gone, and I have received good reports on the audio quality and the volume. The only modes I have transmitted in are SSB on these bands.

From time to time, I have used a small amplifier to boost the output power to about 80 watts by putting inline a RMI Italy KL-203P, which makes this little radio sound like one of the big boys.

This radio is fun to play with and I cannot wait for spring to come so I can try it out portable with my newly constructed end feed wire antenna. I will also bring my low powered Kenwood radios to really compare to radios.

I have enjoyed using this little radio as a receiver and really maximized the audio by using the headphone jack to feed into my stereo amplifier where volume and tone can be controlled for great listening.

The radio does have a lot going for it for this low cost, it can easily feed with 1 amp of power, can fit into a coat pocket, audio can be replaced with amplified computer speakers or headphones, the microphone can be replaced with many brands of speaker-mics that are on the market. And for added punch, a low power RF amplifier can be added, there are many out there for the QRP radios. If given the choice of purchasing this radio again, I would say yes, because part of the fun of ham radio is trying new things and combining items that can be found at a rummage sale, or eBay to expand this little radio. Running this radio reminds me of the days when hams would build their equipment on a piece of wood with items, they found in a radio shop's trash and around the house. This radio can be fun for the experimenter, since it was created by experimenters.

The Kenwood radios I plan on comparing this spring are the Kenwood TS-120V and the Kenwood TS-660.

Chris, N9OEG

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*So....what have you been experimenting with lately?  
Please feel free to submit an article about your experience!  
We'd like to hear all about it.*

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## Your First Rig by Larry Schubert AC9GO

You have just passed your test, or you are just about to, and you want to set up a station. What should you get? What do you need? There is so much on the market that you are about to scream "HELP!"

OK, take a breath and read on. There is a lot to learn about the new as well as the old, and I'll try to give you some insight into these units. First, let's look at some of the old equipment. Most Ham radio gear before 1960 was tubes, and very little was built for anything but AM radio and CW "Morse code", and they came in two pieces, a receiver and a transmitter. Affectionately called "boat anchors" today (because most are very heavy), some of these pieces are still in demand today, but not generally for use, but to sit on a shelf so one of the old timers can say "I always wanted one of those" or "I had one of those when I first started out and always regretted selling it." If you look at the operating table you are more likely to see a nice new transceiver, or two (to cover HF and maybe VHF and UHF) and possibly a computer, and amplifier.

The next set of rigs were a combination of tubes and transistors. Early transistors did not put out the wattage expected in a modern transmitter, and some of the early receivers seemed to hiss in the background. Using transistors in the receivers and excitation section of the transmitters did help in the stabilization and drifting problems, and with the integration of the transmitter and receiver into one box, a transceiver, a number of steps were made in Ham radio.

Skipping ahead to today. We have gone from the transistor age now to the Integrated Circuit or IC age. To this point we have talked about tube radios or transistor and tube radios. Today's radios are built on the IC chips that are made up of tens of thousands or maybe even hundreds of thousands of transistors. You can buy a hand held transceiver for VHF and UHF but they are limited to generally under 10 watts, and most are 5 and 8 watts. Before you buy one of these (as low as \$30) make sure you can hit your local repeaters. You may be able to with an outside antenna that is easy enough to make, but talk to some of the local hams first because they may be able to point to a used unit for these bands for little or no more that has much more power and a better receiver.

Many of the advances in amateur radio communication happened with the advent of the personal computer. The first personal computers came out in the 70's, but it wasn't until the 80's that they started being viable for use in radio communication. Ham radio was again ahead, because they had actually started digital radio communication in the late 1940's. Hams used mechanical teletype printers connected to their equipment using different modulation techniques. In the 1980's Hams used computer-controlled systems to distribute communications during and after disasters. In the 1990's Amateur radio operators used PC's and sound cards to introduce digital modes like PSK31 and began using digital signal processing and software defined radio.

Fast forward to today and we are using several digital modes of communication. PSK31 is still around as well as RTTY (radio teletype) but FT8 is perhaps the most popular. Developed by Princeton professor Dr Joe Taylor (also a Ham) FT8 can send messages that can't be detected by the human ear. His development so impressed scientists around the world that he was given the Nobel prize for his project. Other advancements in radio include SDR or Software Defined Radio which has given the new transceivers filters that were once only available on high end equipment as an option.

## Your First Rig By Larry Schubert AC9GO

What is the bottom line?

For a new ham I do not recommend that you get a QRP (low power) transceiver. I want you to be able to enjoy your new hobby, and 5 watts and a wire just will not cut it. People who use QRP have generally been in the hobby for quite some time. They know the techniques to making contacts, and they may spend hours trying to make a DX contact. Though they are running only 5 watts you will find they have the best feed line and antennas. Most transceivers will have 100w pep for anything in the HF bands and if you are going to work vhf/uhf, a mobile rig and a power supply might be a good place to start.

Join a local club and find out if they have any active nets on 2m or the 440 Mhz band. Also a local club is a great place to find equipment since they generally have information on members that have something for sale or estates where equipment is for sale. A lot of times this is the best place to get a good deal. Club members generally check out any equipment before they recommend anything. If you buy on the internet, you never know what you will get. If the ad says “not tested”, you can bet it doesn’t work. “Needs a little work” would mean if you work on radios, you might be able to fix it, but parts may not be available. I spent many years as an electronic technician, and if anyone says that, it could well mean they cobbled it up to the point that they gave up. I received note on a piece of equipment that said “Coffee wasn’t spilled in it.” Sure smelled like Folgers to me. “Don’t know if it works or not.” Assume it doesn’t work. The only used radio I would buy on the internet would be from places that I trust. The ARRL sometimes has sales as do local clubs selling for the family of a ham that has become a silent key. Most ham dealers sell trade-ins, and back their sale.

If at all possible, go to a Ham radio store. Most stores I’ve been in have units you can try on the air. Ask the guys selling the products what they recommend for a new ham, and they may even have packages for the new hams. Know what you will use with the license you have, and how soon you plan to get the next one. Talk to club members about what they use, and what they would recommend. Icom, Yaesu, Kenwood, and Alinco are some of the brand name radios. Check them out. Try to get one of the newer transceivers. Get something that will work with your license. Find a net and tell them you are new. Hams love to talk to the new Ham. Have fun with your radio!

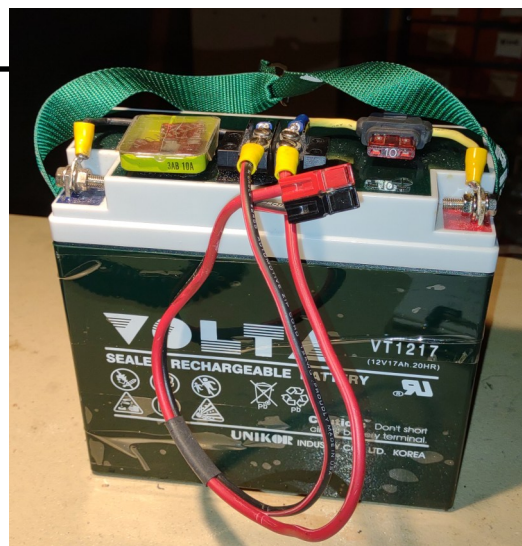
“73” Larry AC9GO

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### Tip from Dave Gauger, W9CJS

Some of us have moderate-sized lead acid batteries for use on Field Day or POTA and the like. Here’s one solution for fusing and carrying a typical battery.

The picture shows how I fused the circuit, provided replacement fuses and simply taped a circular strap to the battery as a handle. The fuse holder and spare fuse box are Velcro’d to the battery.



## Upcoming Exams

Looking to upgrade or know someone looking for a testing location?

More information available at [ARRL.org](http://ARRL.org)

[Click here](#) for link to VE Teams offering Online Exam Sessions

**MUST HAVE FRN AHEAD OF EXAM**

- **01/18/2025 | [Janesville WI 53545-3024](#)**  
Sponsor: Wisconsin Area VEs (WAVE)  
Location: Saint John Lutheran Church  
Time: 1:00 PM (Walk-ins allowed) [Learn More](#)
- **01/25/2025 | [Milwaukee WI 53223-4736](#)**  
Sponsor: MRAC VEC, INC  
Location: Ham Radio Outlet  
Time: 9:30 AM (Walk-ins allowed) [Learn More](#)

Just a bit of fun! I asked AI (Microsoft Co-pilot) to create some photos of Santa studying for a ham radio license. Here are the results!



## Vice-President's Message

Hello fellow members of RARA,

December is here and we're closing out another year of activities. As we end the year I've been looking back and reflecting upon what the club has achieved in the past year and how that was supported by our membership. First and most importantly I want to thank everyone who took the time to fill out a membership form whether for renewal or as a new member and paid their dues. Just a simple act, but one that is the most important in maintaining our club and the activities that we have during the year, so "Thank You" first and foremost to all of our members.

*RARA has experienced growth this year and now boasts a membership of 62 members!*

*We hope you will complete the membership form found at the end of the Hamrag, submit your dues, and join us for 2025 fun!*

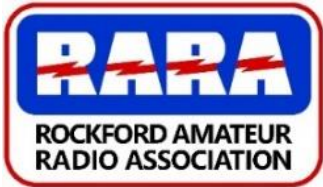
And while I'm on the subject of thanking people, I especially want to thank all the board members who served this past year. Being a member of the board involves a significant amount of work that has been "joyfully" performed by all of our board members. At the same time I want to welcome our new board members for the upcoming year and I know that they will be as hard-working as the hams that they are replacing on the board. I also want to give a special thanks to anyone who was able to attend one of our events this year whether they participated or just stopped in it's always gratifying to know that we have good participation by our members in these events.

During this year we've had many activities including summer field day, a family picnic, and assisting at the Boy Scouts Jamboree on the Air. RARA had tables at the Belvidere hamfest and many of you helped or at least stopped in at the table to check out how the club was doing. I understand that life is busy for many of you and don't have an opportunity to join in many of our club activities, but again, just being a member has been of the utmost help to the preservation of the club and ongoing repeater maintenance. In the coming year we have many events that we're already planning to include; the club's 75th anniversary celebration, summer field day, another family picnic, and possibly some collaborative educational events sponsored by RARA and other local clubs.

In the upcoming year, at our regular club meetings, we are working on having some new presentations on subjects that many of you have requested. The presentations include basic electronics, additional presentations on antennas and building antennas, and a few presentations on modeling software for electronic circuits. In planning ahead for some of the presentations on modeling software I invite you to check out a website: <https://www.angelfire.com/electronic/funwithtubes/index.html>

Scroll down the page to the green section with the heading of "New" then down to the link "[Learning LT spice](#)" clicking on this link will take you to a page which has a link to the LT spice download. I invite you to download this software and try out some of the tutorials on the Fun with Tubes website.

73's, Larry McFall, KD9HKX



website: [w9axd.org](http://w9axd.org)  
email: [w9axdrara@gmail.com](mailto:w9axdrara@gmail.com)

# RARA Membership\* Form

## Dues are \$25.00

*(This is an editable PDF Form. Fill in the information with your keyboard, then save the PDF, and then attach it to an email to: [w9axdrara@gmail.com](mailto:w9axdrara@gmail.com). See below for mail in information and/or PayPal information)*

Date: \_\_\_\_\_ (mm/dd/yyyy)    New Membership \_\_\_\_\_    Renewal \_\_\_\_\_

Name: \_\_\_\_\_    Callsign: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_    State: \_\_\_\_\_    ZIP: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Phone - Home: \_\_\_\_\_    Cell: \_\_\_\_\_

Can we release your e-mail and phone number to members only?    Yes \_\_\_\_\_    NO \_\_\_\_\_

Are you a member of the ARRL (American Radio Relay League)?    Yes \_\_\_\_\_    NO \_\_\_\_\_

What things do you like to do with ham radio?  
\_\_\_\_\_

What things do you want to do, but need more information to do so?  
\_\_\_\_\_

Would you be available to make a presentation on some part of our hobby and what?  
\_\_\_\_\_

Do you have any questions that we can help you with presently? If so, explain below.  
\_\_\_\_\_  
\_\_\_\_\_

**Mail In:** Please fill out all the information on the form and mail it with \$25.00 to the following address:

Rockford Amateur Radio Association  
P.O. Box 8465  
Rockford, IL 61126

Make your check payable to: Rockford Amateur Radio Association.

**For Internet application and payment:**

To use PayPal, click on the link below. After clicking "Send" and then logging in, enter \$25.00 in the "Dollar Amount", and click "Send", to complete your payment to RARA. Also, **DON'T** forget to email your completed form to: [w9axdrara@gmail.com](mailto:w9axdrara@gmail.com) for your membership application. *Thank you for your support!*

PayPal Link:



\*Membership is based on approval of the RARA Board. The membership fee will be returned if you are not approved.