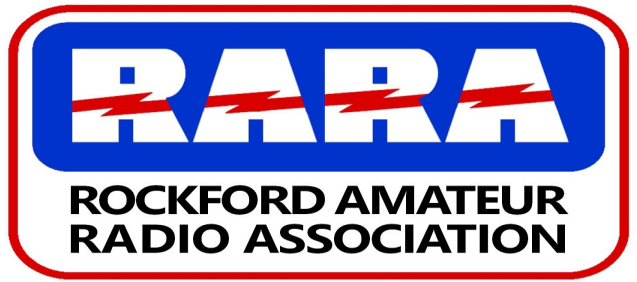


# HAMRAG

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.

## October 2024

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## From the Board

**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.

## Congratulations!

Curt Conard, KE9BIQ - on receiving his technician ticket!

## Welcome New Members!

Chris Green, N0OEG  
Dennis Johanson, K9VMY  
Brett Johnson, K9BY

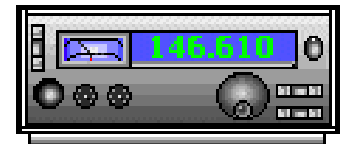
**NOTE: all new memberships Oct-Dec are effective through December 2025!**

## Thanks to:

Randy Long for his assistance in updating the RARA Trifold Flyer.

## Looking ahead!

JOTA (Scouts, Jamboree on the Air)  
Saturday, Oct 19 at Camp Lowden, Oregon IL.



## NEXT MEETING

FRIDAY— October 11, 2024 - 7:00pm

OSF St Anthony Med Center—lower level (Foundation Room)  
5666 East State Street, Rockford

- \* Election of 2025 Directors
- \* Program to be determined

## Local Events and Information

October 1, 2024 RARA Board Meeting 7:00pm on Google Meet  
October 11, 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)  
Matt Marshall, W3MBX, 815-222-5959, [matthew.marshall@gmail.com](mailto:matthew.marshall@gmail.com)  
Kevin Puckett, N9EGF, 815-218-1551, [krpuckett@gmail.com](mailto:krpuckett@gmail.com)

Hamrag Editor - Verna Schubert, KD9YUM, 815-505-8170, [schubie2@charter.net](mailto:schubie2@charter.net)  
Webmaster - Verna Schubert, KD9YUM, 815-505-8170, [schubie2@charter.net](mailto:schubie2@charter.net)  
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)

#### **Upcoming Opportunities:**

**JOTA (Scouts Jamboree on the Air-Saturday, October 19):** RARA will be assisting at this event and is seeking volunteers to help with setup/tear-down, running stations, and assisting as needed. Matt (W3MBX) will be reaching out via Facebook and at the monthly meeting.

**IL QSO Party**—1700 UTC October 20, 2024 to 0100 UTC October 21, 2024/  
Bands: 160 through 2 meters, excluding WARC bands (60, 30, 17, and 12 meters)  
Exchange: IL stations give RS/T and county; others give RS/T and state, province or country.  
Full rules can be found at: <https://w9awe.org/ilqp/#68-84-wpfd-2024-ilqp>  
Scroll down to “Past Results, Rules ETC” and select 2024.

#### **Editor’s Note**

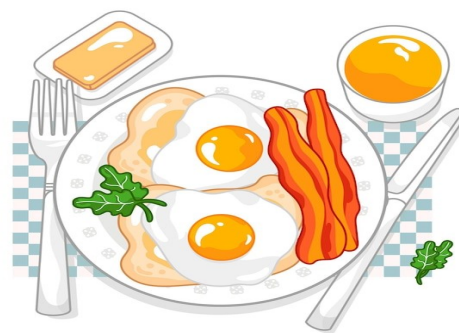
If you would like to have something published, please call me, or email me at  
[schubie2@charter.net](mailto:schubie2@charter.net)

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

**Due Date for the November 2024 Hamrag is Monday, October 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)

## 2025 Board of Directors Nominations & Election

The Nomination Committee is asking for nominations or volunteers for the election of officers and directors for the RARA Board of Directors. The only prerequisite is for officers to be licensed amateurs. Election of club Directors is tentatively scheduled for the October meeting. The newly elected Directors shall assume their duties on January 2025 and may not serve for more than four-consecutive years.

The Board of Directors promote RARA, conduct the club's business activities, plan and organizes club activities, plan programs for the monthly club meetings, set the membership dues and ensures the repeaters are maintained and functioning. Your club needs good people to serve on the Board, please consider volunteering.

While nominations are still being accepted, and may be made on the floor at the October meeting, there are currently nominees for all positions with the exception of Secretary.

The **current** 2024 Board of Directors are:

President, Tom Shouler (N9VJU)  
Vice President, Larry McFall (KD9HKX)  
Secretary, Larry McFall (KD9HKX)  
Treasurer, Verna Schubert (KD9YUM)  
Director, Dan Larson (KD9SAZ)  
Director, Larry Lisle (K9KZT)  
Director, Matt Marshall (W3MBX)  
Director, Kevin Puckett (N9EGF)

For any questions you may have please contact one of the nominating committee members listed below.

Larry McFall	815-900-1820	<a href="mailto:lpmcfall@charter.net">lpmcfall@charter.net</a>
Larry Lisle	815-397-9595	<a href="mailto:l.lisle@usa.net">l.lisle@usa.net</a>
Matt Marshall	815-222-5959	<a href="mailto:matthew.marshal@gmail.com">matthew.marshal@gmail.com</a>
Verna Schubert	815-505-8170	<a href="mailto:schubie2@charter.net">schubie2@charter.net</a>

Please email your nomination to [lpmcfall@charter.net](mailto:lpmcfall@charter.net)

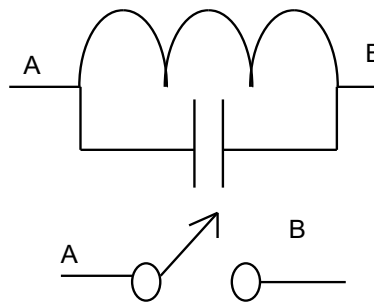
## TUNED CIRCUITS & TRAPS by Dave Gauger W9CJS

Most all electronic circuits have Resistive, Capacitive, and Inductive parts which work in very useful combinations. Tuned circuits use these components together in clever ways to achieve useful circuits. Two very common types are parallel and series connected inductors and capacitors.

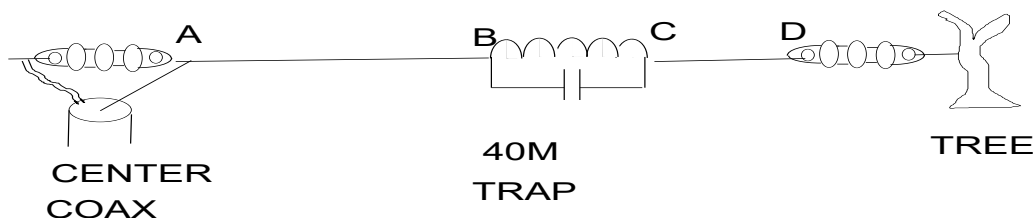
### PARALLEL RESONANCE

Electrically, a parallel connected C and L will oscillate at their resonant frequency, with the energy cycling back and forth from electric field energy in the capacitor to magnetic field energy in the coil.

Consider a conductor, A to B carrying RF current, and with a parallel connected capacitor and inductor inserted in the middle. At one frequency, the resonant frequency, the RF path from A to B will be all-but shut off because a parallel tuned L-C combination looks like an open switch at its resonant frequency.



For years I used a home brew trapped dipole from an article in QST. It operated reasonably well on 80-40-20 meters. Its total length was 108 ft. and it used one trap in each half. This crude diagram pictures one leg of the dipole with coax at the left end of the diagram.



This represents one half of the dipole, the other half is a mirror image.

## Feature Article— W9CJS

From A to B was about  $\frac{1}{4}$  wave on 40m... about 33 ft to the trap. Then the trap and the remaining 21 ft. from C to D completed the rest of the antenna.. The SWR was not flat, but didn't exceed 3:1 on 80m 40m and 20 meters.

On 40 meters the two traps, one in each half of the dipole, were each in resonance and acted like open switches limiting the total length of the dipole to 66 ft.. On 80m and 20m the traps are not resonant but are a lumped constant loading inductor which electrically lengthens the outer section C to D enough longer to resonate on 80 and 20m.

### SERIES RESONANCE

Placing the coil and capacitor in series does just the opposite, i.e. when in resonance it looks like a closed switch. This combination has many uses, one of which may be in filters.

### ONE EXAMPLE

I once lived 2 blocks from WJJD, a 50 Kilowatt 1160 AM station in DesPlaines, IL. Of course the 1160 kHz signal provided constant hash on my Ham receiver. The fix was to wind a coil and tune it using series connected capacitors to 1160 and connect it across the antenna input terminals. Well .. it didn't work too well, so back to the books.

Ahah! ... In such a circuit the Q and the rejection effect are largely dependent on the resistance in the coil so winding the coil with much heavier wire and many fewer turns solved my problem. I rewound to minimize the coil with #12 wire and used lots of mica capacitors to tune it to 1160 and the results were amazing. The interference was essentially gone thanks to the fact that the capacitor and inductor in series resonance looked like a SHORT across the antenna terminals but only at 1160 KHz, their resonant frequency.

A host of trapped or inductively loaded antennas are still used and available on the market. Names like Alpha Delta, Comet and DX Engineering come to mind. Often, on a vertical, several traps are used, one for each band.

Does this explanation remind you of how the traps in your 'Three element Triband beam' function. And does it help explain the trap in the middle of your mag-mount vertical whip for 2m and 70cm bands? I hope so.

**Dave Gauger W9CJS**

### Let's Build Something by Larry Schubert AC9GO

A lot of hams like to build things. Over the years I've put together a number of projects. Way back I built a Knight kit and a Heath kit or two. In recent years I put together a QRP 40 M transceiver that I bought for about \$10 on the internet. Never did get it to work, but the instructions were so bad I wasn't even sure that I had the two IC's in the right place, or the coils wound right. I heard some static on my earphones but that was about it. It ended up on my some day pile as in someday I'll mess with it again to see if I can get it working. Frankly I was only out \$10 and I had fun building it, even if it was disappointing. The project I have in mind that you might want to try is actually simpler and generally works well. Hint: It can help you in a fox hunt. If you guessed "Tape Measure Antenna" you got it and if you are not familiar with the tape measure antenna let me give you a short description.

The tape measure antenna is basically a three element Yagi antenna that is hand held and is great for helping find the Fox in "Fox Hunting" which is a Ham contest in which a Ham will hide a hidden transmitter in a certain area, and at a predetermined time and area. The hidden transmitter is the fox, and it will emit a signal for a predetermined time and at predetermined intervals on a specific frequency. The hunters then use directional antennas and some other devices to home in on the fox. The first group to find the hidden transmitter is the winner of the contest. The length of time for the contest varies. I've seen them go as fast as 20 minutes to as long as 4 hours. One of the things I can almost guarantee you will see at any Fox Hunt is the tape measure Yagi.

These antennas have been around for quite some time now, and for good reasons. First they work well, and second they are easy to make. These units also have a 7.3 dBd which will give them a lot of punch if you hook them to a HT. For Fox hunting you may want to add an attenuator on the output of the antenna so you can narrow down the signal when you get close to the fox. This will help narrow down the direction to the signal from the fox.

I found a couple of articles on construction of the antenna at these URL's :

<https://www.instructables.com/The-Tape-Measure-Antenna>

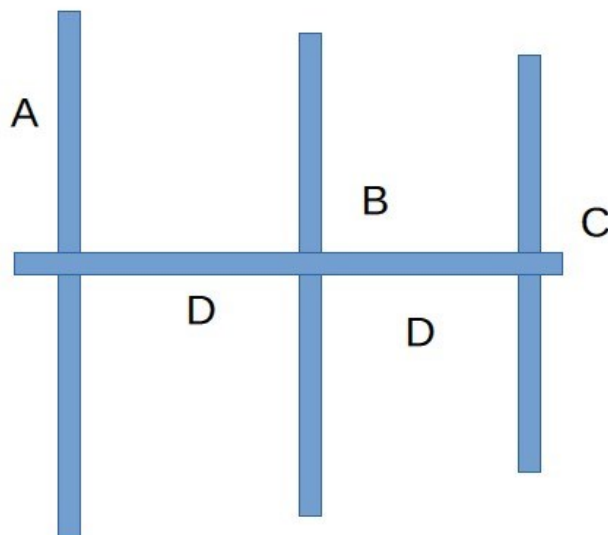
[http://theleggios.net/wb2hol/projects/rdf/tape\\_bm.htm](http://theleggios.net/wb2hol/projects/rdf/tape_bm.htm)

## Feature Article— AC9GO

I suggest that you read these articles, and go over the parts list. If you can't find a coupon for a free tape measure at Harbor Freight you will find a tape measure an inch-wide for about \$5, PVC pipe is easy to get, and I would suggest that you add an elbow and short section going down for a handle in the back of the antenna. I say in the back because anything like a hand on the boom might interfere with the signal. You will find it is light enough to hold with one hand

This is the type of thing that you might try building with your son or daughter or a grandchild. It can be used as a teaching tool as you work on it and then try it out on a repeater with the HT and its regular antenna and then the Yagi. Have fun! Try a "Fox Hunt". The Beloit club puts on a fox hunt every month in the summer months. RARA's ham rag lists area events. Check it out! Have fun with your Ham radio, That's what it is all about.

"73" Larry AC9GO



Reflector length A	39.74 in
Driven length B	37.98 in
Director length C	35.33 in
Spacing length D	10.04 in

I used a program to come up with the design of the Yagi. Note the articles I suggest have different sizing. Also they give complete parts list and instructions. Go with them.

## September Happenings— Belvidere Hamfest

Thanks to Kurt Eversole, KE9N, for securing the RARA tables for the Belvidere Hamfest and to those helping with setup, teardown, and helping promote RARA! The rain greatly impacted the outdoor swap meet but the indoor sales and promo areas had decent attendance. RARA did not have record breaking sales but did cover the cost of tables, with a little extra. As usual, after the final prize drawings were held, the crowd thinned quickly.

It was fun promoting RARA and visiting with hams stopping by the tables. We did have a special RARA friend stop by and visit for quite a while. Paul Dean, WB9HGZ, reached out in August via email ; he and his wife would be traveling through the area from Virginia hoped to stop by the Belvidere Expo. Below is part of our August correspondence:

*"I got my license in 71 as a result of attending a RARA sponsored class. Edited the HAM RAG around 1973 +/- . Much different back then. Paper, typewriter, cut and paste.*

*I especially liked the column "Potpourri" that was religiously submitted every month by a fellow RARA classmate of mine, Ralph, WB9HHH (sk). He was retired and gathered all the news tidbits from fellow members regarding new equipment, antenna work, interesting contacts, etc. Made the club feel a bit more family like.*

*Oh, by the way, I look at the HAM RAG through the Web Site. I went to NIU in 75 and joined the KRC in DeKalb. Came back to Rockford in 78 and was in RARA for a few years until the youngsters came along. Still like to keep up RARA just to be glad to see it is still going!"*



Left to right:  
Kurt KE9N, Verna KD9YUM, and Paul WB9HGZ.



RARA member Jim KD9GDY promoting the Straight Key Century Club.

## September Happenings—Family Picnic

Years ago, summer picnics were an annual RARA event. Well...we decided to bring it back and was it ever fun! Thanks to everyone helping with the event planning and organization, Matt W3MBX, Dan KD9SAZ, Kevin N9EGF, and Verna KD9YUM. And thanks to everyone, there was plenty of delicious food and lots of socializing.

There were over 40 attendees, some stayed for several hours, some for a brief visit. The weather, while breezy, was beautiful and the shelter area was beautifully located (Verna KD9YUM was able to secure the shelter rental with using her volunteer hours for the Winnebago County Forest Preserve). Dan KD9SAZ secured a donation of hats from Yaesu for anyone wanting one and he also made sure there was a great door prize to award of a Yaesu FT-65-R 5W VHF/UHF FM Dual Band Handheld. Congrats to lucky ticket holder Chelsea Whitlow (pictured on the following page along with her husband, Kyle and son, Beau!

Special thanks to Jordan Wolfe, WTVO/WQRF Meteorologist stopping by to make sure the weather he ordered for us was cooperating. I hope you were able to say hello to him and thank him for accepting the invitation to the picnic.

See everyone next year!



# September Happenings—Family Picnic



# September Happenings—Family Picnic



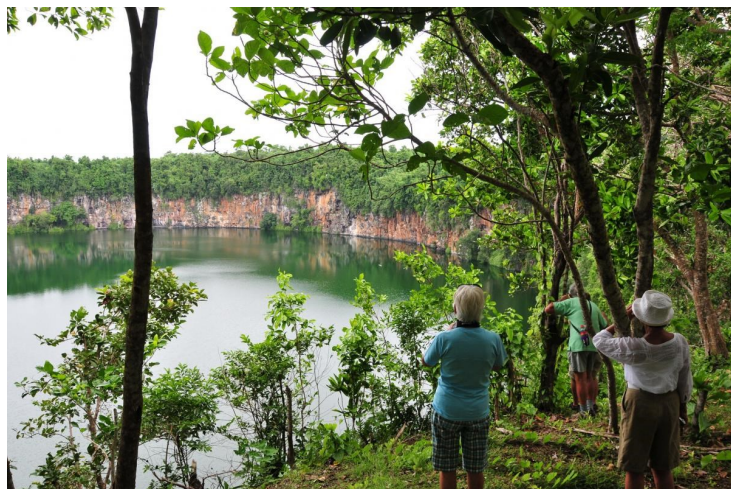
## DX Peditions

### FW7AA Wallis Island

FW7AA Team will be active from Wallis Island,  
IOTA OC - 054, Wallis and Futuna,  
16 - 29 November 2024.

Team - Bob, W7YAQ and Al, K7AR.  
SearchThey will operate on HF Bands.  
QSL via W7YAQ, LOTW, ClubLog OQRS.  
QTH - Vaimalau, Wallis Island.

<https://dxnews.com/fw7aa/>



### 3D2Y Rotuma Island

3D2Y Team will be active from Rotuma Island,  
IOTA OC - 060,  
15 November - 4 December 2024.

Team - W6IZT, W8HC, K4NHW, KD9LSV, LY7J  
and others.

They will operate on HF Bands, *including* activity  
in CQ WW DX CW Contest,  
23 - 24 November 2024.

They will use 3D2Y call.

<https://dxnews.com/3d2z/>



### 351SGC Rarotonga

351SGC will be active from Rarotonga,  
South Cook Islands. IOTA OC—013,  
6-24 November 2024

Team—LZ1GC, LZ5QZ

They will operate on 160 - 6m, CW, SSB, FT4, FT8,  
RTTY.

QSL via LZ1GC, ClubLog OQRS, LOTW.  
DXCC Country - South Cook Islands, E5/S.

<https://dxnews.com/e51sgc/>



## Upcoming Exams

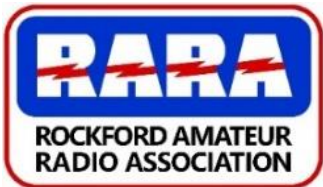
Looking to upgrade or know someone looking for a testing location?

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**

- **10/05/2024 | [Madison WI 53715-2143](#)**  
Sponsor: Four Lakes ARC  
Location: Univ of WI Space Place  
Time: 8:00 AM (Walk-ins allowed) [Learn More](#)
- **10/05/2024 | [Freeport IL 61032-4116](#)**  
Sponsor: Stateline Amateur Radio Club  
Location: Freeport Public Library  
Time: 12:30 PM (Walk-ins allowed) [Learn More](#)
- **10/26/2024 | [Milwaukee WI 53223-4736](#)**  
Sponsor: MRAC VEC, INC  
Location: Ham Radio Outlet  
Time: 9:30 AM (Walk-ins allowed) [Learn More](#)
- **11/02/2024 | [Madison WI 53715-2143](#)**  
Sponsor: Four Lakes ARC  
Location: Univ of WI Space Place  
Time: 8:00 AM (Walk-ins allowed) [Learn More](#)
- **11/09/2024 | [McHenry IL 60050-4422](#)**  
Sponsor: NW IL S WI Amrron  
Location: McHenry Masonic Lodge  
Time: 10:00 AM (Walk-ins allowed) [Learn More](#)
- **11/16/2024 | [Janesville WI 53545-3024](#)**  
Sponsor: Wisconsin Area VEs (WAVE)  
Location: Saint John Lutheran Church  
Time: 1:00 PM (Walk-ins allowed) [Learn More](#)



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.