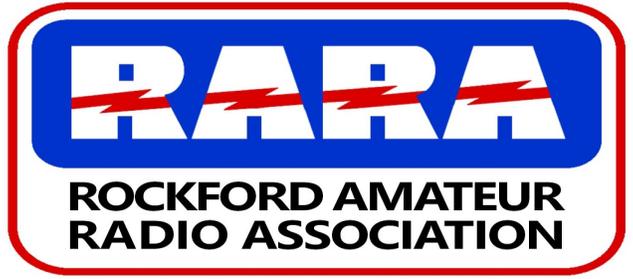


# HAMRAG

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.

## November 2022

## Presidents Message

## INSIDE THIS ISSUE

Hello Everyone,

Here it is November already and the year is almost over. The cold weather is starting to settle in, and we all know this means that those last minute tower and antenna projects are on our minds.

Last month we held our nominations for our officers and Board members for 2023, and I am happy to announce we had almost a full slate of candidates. The only position we have open is for a Secretary for 2023. If you can help us by taking this position, please contact one of the Board members. We need your help!

On a final note **DUES are due by December 31, 2022**. If your dues are not paid by January 31, 2023 you will be removed from the email list when the new Hamrag is posted. This will be reinstated when your dues are paid, but could take a month to finish processing.

I hope to see you Friday night!

73,  
Kurt Eversole - KE9N

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## NEXT MEETING

**FRIDAY**  
**November 11, 2022**  
**7:00 pm**

**On Google Meet**  
**The meeting link is:**

**<https://meet.google.com/sfc-gybc-fhv>**



## POTA Activations

### “NOW IS THE TIME”

Now is the time for what, you ask. Now is the time to prepare for the warm spring/summer when warmer weather opens the door to POTA operation. Parks On The Air.

### HISTORY

Several years ago, friend George Dorner, W9ZSJ, joined several of us at the Palatine, IL, EOC, upstairs at a fire station where the city had graciously allowed us to use a large room for teaching, for socializing and for operating ham radio. I was on a CW team of three who ran a 100 watt transceiver feeding an end-fed half wave up 40 ft. and out to a tree. Meanwhile, George Dorner arrived with a five watt QRP transceiver and a roll of adhesive aluminum 4 inch wide tape. He proceeded to attach a four foot loop to the wall, with a smaller coupling loop fed from his little rig. We worked about 20 stations during an hour or more of the Illinois QSO party. George worked more stations with his aluminum foil loop inside than we did with our 100 watts and half wave antenna outside. I was intrigued, or rather “hooked” on QRP and magnetic loop antennas.

The internet is rich with articles and videos about QRP operation and more specifically about POTA operation. Over the winter I researched and read and viewed all the material I could find and decided that I'd try it.

Meanwhile, following Kurt's, KE9N, magnetic loop presentation, and KC9OJP, Bill Calow's POTA presentation at a virtual club meeting, I started building and experimenting with these small antennas. When I fired up my IC-703 five watt rig to a magnetic loop on a tripod in my den, I started hearing all kinds of signals, and to my amazement, started working a few stations all over the country, from inside the house. About this time John Mori, N8TA, and I started experimenting with his Alpha, base loaded vertical. It became an antenna for possible use in our POTA outings.

### THIS LAST SUMMER

Four of us, Dave Larsen, N9ZXL, John Mori, N8TA, Dennis Johansen, K9VMY, and I decided we'd try POTA at Rock Cut Park using a QRP rig on battery power, and either the vertical or a mag loop antenna. Thursday afternoons seemed to be free for most of us, so we met ... and then met the next week, and so on. It became a weekly activity each Thursday afternoon and we had occasional visitors. Jack Riverdahl, K9JAR, joined us several times, Kurt Eversole, KE9N, and Larry Schubert, AC9GO (who even brought his wife along), and Bill Calow, KC9OJP, stopped by early-on as well. These were good times ... social ... beautiful weather ... fun people ... and ... oh yes, we operated POTA as we sipped iced-tea or Propel.

About half way through the season we decided to compare the vertical and the mag loop antenna with an A-B switch. We saw only a little difference in received signals, and we worked 22 stations, 11 with each of the two antennas. Because the loop is so easy to set up and transport, we finished the season using just the loop on a 4 foot tripod.

### RESULTS

Did we work stations? Yes, to our amazement we did. For the first few outings we used the 17 ft vertical. Success was quite variable. On June 2nd we worked 12 stations ... the following week, June 9<sup>th</sup>, only 2 stations. This was typical week to week. We never knew what to expect regarding propagation. The most we ever worked was 22, and the fewest was zero, nada, no stations worked. On 8/4 we worked only one station a VE9. It wasn't because we didn't try or that we gave up. Whatever transceiver we used, a IC705 or IC-703 or an Elecraft KX2, we programmed our CQ POTA call and used the auto-send feature which sends the CQ message then waits a few seconds and re-sends it. This went on continuously for more than an hour. All in all, I consider our outings a great success, technically yes, socially yes, and weather cooperated so we had great times. I highly recommend it to anyone.

### ABOUT POTA

POTA, (Parks On The Air), is similar to SOTA, (Summits On The Air), and IOTA, (Islands On The Air), and numerous other efforts which are well organized and documented.

*(continued)*

## POTA Activations

Only official Federal or State parks are on the accepted list for POTA operation. For a listing which includes each park's numeric ID, see <https://www2.illinois.gov/dnr/Parks/Pages/AllParks.aspx>. This website lists 142 parks in Illinois.

Rock Cut is identified with the number K-1019, 5 miles from Rockford.

Lowden State Park is K-1008, 23 miles away.

White Pines State Park is K-1031, 33 miles away..... and so on

Valuable information is available in PARKS ON THE AIR – ACTIVATOR GUIDE, a valuable help in understanding how it works with suggestions about operation, preparation, safety, rules and regulations and so on. I'd say it's a must-read ... an easy download, 19 pages of valuable information and it's found at [www.parksontheair.com](http://www.parksontheair.com)

### HOW POTA WORKS

You can elect to be either a HUNTER, or an ACTIVATOR, (or both). HUNTERS usually stay at home and work as many parks as they can ... there are various levels of involvement and rewards. ACTIVATORS are those who go out to the park and operate. If you work ten or more stations in a given park, then you have activated your park and can then upload your log information to a central repository on the web. Then, HUNTERS will be credited with having worked whatever park you have activated.

ACTIVATORS should register (just once, initially) with the POTA organization, and then can SPOT their operation on that site stating what park you will be at, and what day, time, band, mode and frequency. That way, HUNTERS can look at the listing and find you. Most operations I've heard have been SSB or CW. On QRP, slow CW seems to be most effective.

### RATIONALE

Sure, in the past I've had the 2Kw linear feeding a 3 element beam on a 40 ft. tower, and it was fun for a long time. But now, as I'm older, using high power and large antennas no longer presents me with a challenge. Add to this the fact that like many others, I now live in an HOA (Home Owners Association) regulated neighborhood with significant restrictions on outside antennas.

POTA, especially using QRP, is in no way a substitute for emergency operation. Rather it is a fun activity which taxes your operating skill and tests whether you brought the things that you really needed. POTA, using low power and small antennas is a real kick, a challenge, and I really enjoy working Utah, or Massachusetts with 5 watts and a 39 inch loop. You just might enjoy the same things, and I encourage you to dip your toe in, try a QRP rig at home, build a mag-loop, (all it takes is a piece of stiff wire and a tuning capacitor) and I think you'll be amazed, as I have been. Incidentally, during our outings we also worked both Spain and Portugal.

I take a table, a radio with battery, a loop on a folding tripod, a couple folding chairs and a cooler with re-

freshments.... that's it. Of course, you'll also need a pencil and clipboard of paper. What's not to like on a beautiful, warm, afternoon. Best of all, it's a great excuse to get together with like-minded Ham-friends and operate in a challenging experience. Don't forget some cold drinks for your outing. Why not prepare now for your outing next June. If you have questions, we'll try to answer them. If you want to see a magnetic loop antenna in action, give me a call and come on over. Call me at 224-567-3264.

73, Dave Gauger, W9CJS



## Local Events and Information

### UPCOMING EVENTS

**November 11, 2022** - General RARA Meeting 7:00 pm on Google Meet

**November 23, 2022** - RARA Board Meeting 7:00 pm on Google Meet

**December 9, 2022**- General RARA Meeting

**December 21, 2022** - RARA Board Meeting

### RARA Repeater Information

Both repeaters (146.610 and 147.000 (both have a pl 114.8)) will function with both digital and analog radio signals, but the repeaters require time to determine whether the signal is digital or analog. To operate the repeater properly you must first be sure the frequency is clear, then key and hold the microphone button down for **1-2 seconds**. Then begin speaking. If you fail to do this, the first part of your message will be lost.

### Local Net Information

**Mon** - 7:00pm - RARA Info. Net & CW Lesson, 146.610 (-) offset, pl 114.8  
8:00pm - McHenry Cnty. RACES Net, 146.835 (-) offset, pl 91.5

**Tues** - 7:00pm - Health & Tech Net & CW Lesson , 147.195 (+) offset, pl 114.8  
7:00pm - Rock County Public Service Net, 145.450 (-) offset, pl 123.0

**Wed** - 7:00pm - Stephenson Cnty. ARES Net, 147.390(+) offset, pl 114.8  
7:30pm - Greater Beloit Radio Net, 147.120 (+) offset, pl 123.0

**Thurs** - 7:00pm - Northern Illinois Skywarn Training Net, 147.195 (+) offset, pl 114.8, with the Health & Tech Net & CW Lesson following.

**Fri** - 8:00pm - Friday Night Fun Net, KC9GCR, 146.610 (-) offset, pl 114.8

**Sat** - 8:00pm - Saturday Ragchew Net, 146.610 (-) offset, pl 114.8  
9:00pm - Saturday Night Fun Net Milw., 146.910 (-) offset, pl 127.3

**Mon. thru Friday** - 8:00am to 9:00am - Senile Net, 14.287 (HF USB)

### FRIDAY MORNING BREAKFAST

Meets every Friday morning from 8 am until about 10:00 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***



## Election Time

Voting for 2023 Officers and Directors will be done at our club meeting on November 11th.

I ask that **all members** participate by voting, or nominating another member for a position. **We currently are in need of someone to be the Secretary for 2023.** Please offer your help to fill this position.

Below are general descriptions of the responsibilities for each position.

- **President** – presides at all meetings according to the Rockford Amateur Radio Association's constitution, by-laws and rules of order. Appoint all committees, sign official documents and carry out the recommendations of the Board of Directors. The President is also Chairman of the Board.
- **Vice President** – will preside over meetings if President is absent and coordinate meeting presentations.
- **Secretary** – will keep meeting minutes, roll of members, provide applications for membership, and oversee amendments, changes & additions to the constitution and by-laws.
- **Treasurer** – is custodian of monies received and expended, keeping records and issuing the Treasurer's Report to the Board of Directors monthly.
- **Directors (4+)** - The Board of Directors shall include these Officers, a minimum of four Directors, and current editor of the monthly bulletin (Hamrag).

Current nominations consist of:

President - Kurt Eversole - KE9N  
Vice President - Tom Shouler - N9VJU  
Secretary - Open  
Treasurer - Gordon Seaman - KC9NEX  
Director - Larry Lisle - K9KZT  
Director - Ron Callahan - N2RON  
Director - Kerry Tatlow - KD9MAP  
Director - Larry Mcfall - KD9HKX

The President appoints the Hamrag editor, webmaster, and repeater committee chairperson. Contact me if you are interested in any of these positions.

Thank you,  
Kurt Eversole - KE9N

### 2022 RARA Officers and Board

#### **Officers:**

President - Kurt Eversole, KE9N, 815-389-2784, [kurt.eversole@gmail.com](mailto:kurt.eversole@gmail.com)  
Vice President - Tom Shouler, N9VJU, 815-633-0089, [n9vju@comcast.net](mailto:n9vju@comcast.net)  
Secretary - Jeff Metters, KD9MEC, 815-670-5506, [jeffmetters@gmail.com](mailto:jeffmetters@gmail.com)  
Treasurer - Jimmy Curtis, KC9GOL, 779-537-2233, [jimhcurtis7818@yahoo.com](mailto:jimhcurtis7818@yahoo.com)

#### **Directors:**

Mark Broman, N9CNW, 815-218-5514, [markbroman@hotmail.com](mailto:markbroman@hotmail.com)  
Larry Lisle, K9KZT, 815-397-9595, [l.lisle@usa.net](mailto:l.lisle@usa.net)  
Ron Scott, 815-601-7754, [soccerrefl@charter.net](mailto:soccerrefl@charter.net)  
Larry Schubert, AC9GO, 815-624-7772, [larry.schubert@gmail.com](mailto:larry.schubert@gmail.com)  
Webmaster - Kerry Tatlow, KD9MAP, [kd9map@gmail.com](mailto:kd9map@gmail.com)  
Repeater License Trustee - Gordon Seaman, KC9NEX, 815-262-0294, [kc9nex@gmail.com](mailto:kc9nex@gmail.com)  
Hamrag Editor/Repeater Chairman - Kurt Eversole, KE9N, 815-389-2784

## Operating Events

### Aiming for a “Clean Sweep” is Big Part of ARRL November Sweepstakes' Appeal

For many, **ARRL November Sweepstakes** (SS) is the premier ARRL fall operating event, with the lure of a “Clean Sweep” being the ultimate goal. The challenge of SS — or “Sweeps” — is to work as many stations in as many of the 83 **ARRL and Radio Amateurs of Canada (RAC)** sections as possible within the 24 available hours. The number of sections worked is a score multiplier. Be the first in your neighborhood to work all 83 and qualify for a “Clean Sweep” mug!

SS takes place on separate November weekends. The CW weekend is November 5-7, and the phone (SSB) weekend is November 19-21. The contest period for each contest begins at 2100 UTC on Saturday and continues through 0259 UTC on Monday. Stations may operate 24 hours of the available 30 hours.

In a change this year, logs are due **5 days** after each event. SS is a “domestic” contest with broad appeal, and even stations with modest equipment and antennas can enjoy success. Many stations like to operate in the QRP category (output of 5 W or less).



Veterans Day is Friday, November 11, 2022, and will feature many opportunities for amateur radio operators to celebrate and honor Veterans throughout the holiday weekend.

Special event stations will be on the air across the county, including the Redding Veterans Amateur Radio Club, W6VET, in Redding, California, and the Veterans Day commemoration onboard the USS Kidd (DD-661), a World War II Fletcher-class destroyer, with the USS KIDD Amateur Radio Club in Baton Rouge, Louisiana.

The **Strategic Air Command & Aerospace Museum** in Ashland, Nebraska, has a full day of activities planned on November 11, including an amateur radio demonstration by the **Strategic Air Command Memorial Amateur Radio Club** (SACMARC) using the historic call signs of General Curtis Emerson LeMay, K0GRL, and the Offutt Air Force Base, K0AIR.

The American Legion Amateur Radio Club, K9TAL, is located at their national headquarters in Indianapolis, Indiana. Any station that contacts K9TAL on Veterans Day will receive a special QSL card. The Wisconsin Maritime Museum in Manitowoc, Wisconsin, will celebrate Veterans Day on November 12 - 13, 2022. The USS Cobia Amateur Radio Club will be onboard and on the air from the USS Cobia World War II submarine. A commemorative QSL card will be issued for contacts made during the 2-day event.

A complete list of special event stations, including Veterans Day stations, is available at [www.arrl.org/special-event-stations](http://www.arrl.org/special-event-stations). Use "Veterans" in the keyword search.



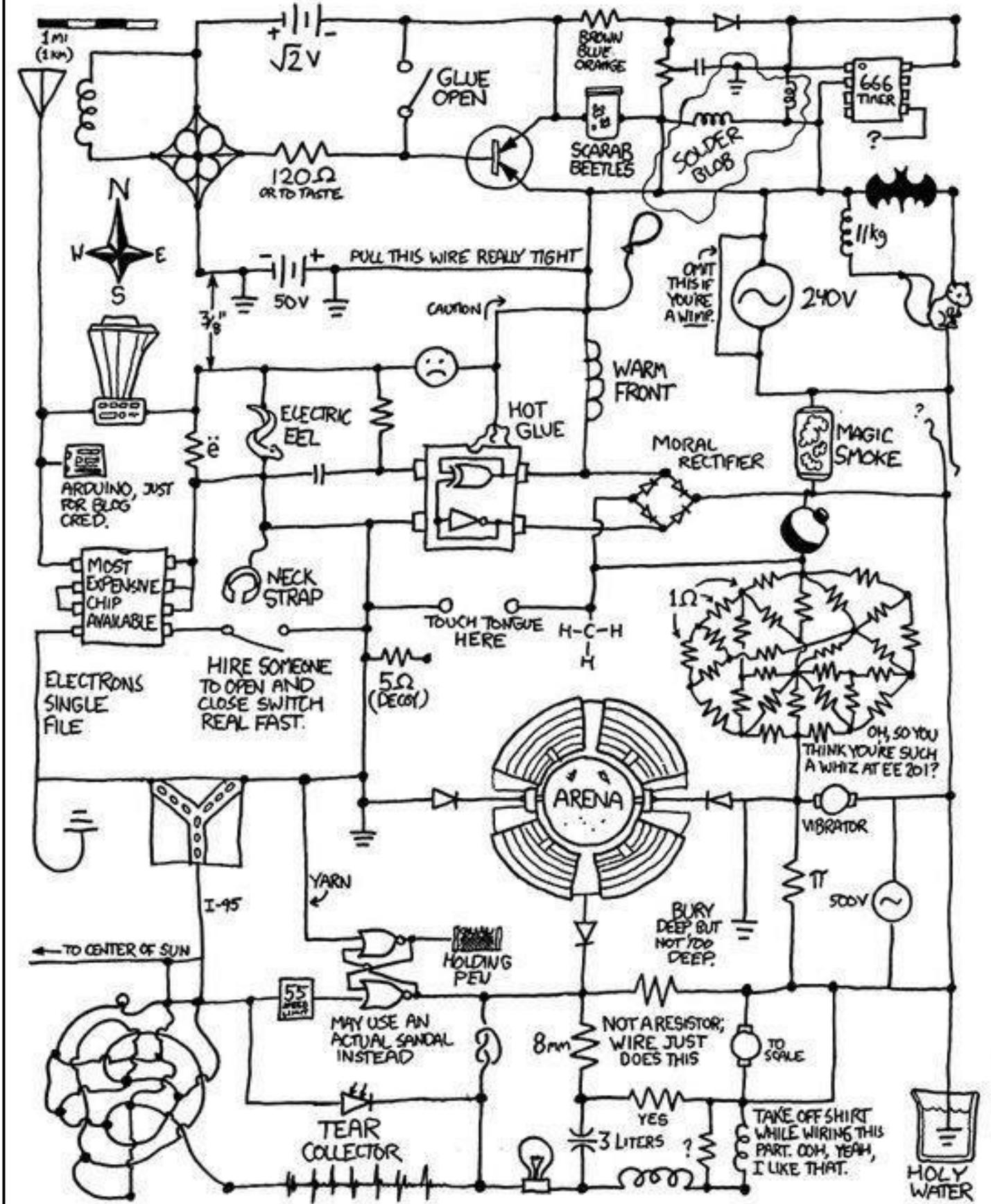
### Editors Note

If you would like to have something published, please call me, or email me at [kurt.eversole@gmail.com](mailto:kurt.eversole@gmail.com)

**Cut-off for the December 2022 issue will be Sunday, November 27, 2022**

Kurt - KE9N, Editor

# Understanding a Simple Flow Chart



# Speeding Up an Old Laptop

Speeding up an Old Laptop by Larry Schubert - AC9GO

I should begin with a disclaimer. I am not a computer expert, but I have been able to use laptops and desktops now for several years. (Since they were invented) I've used DOS, Windows 3.0 plus most versions through Windows 10, a couple of Apple versions plus an IPAD, and several Linux versions as well.

It may surprise you to know that my favorite is Linux, and though I've tried several distributions and have used several over time. By the way, there are over 600 different distros (as they call them) available, and all are free and open source. This means that most, if not all, are free to download off of the internet, and most of the software is free as well. The program I'm using to write this is a free word processor suite called LibreOffice. The computer I'm using is Windows 10, and I may later send it to one of my laptops and finish it there with a Linux version of LibreOffice writer.

The point is, I'm not losing anything by using Linux. In fact, I gain the use of a number of programs because they are free, and I couldn't afford to buy each and every one. Now you might ask "Why use Linux if this is available in Windows?" First, my oldest laptop was built for Windows XP. It couldn't run the latest version Windows if it wanted it to, and if it did, it would be so slow that that it would be worthless. It runs one of the first core 2 duo processors, and with the latest Ubuntu distro it boots up in 1 minute 15 seconds. I made only one change. I pulled out the old hard drive and put in a solid state drive. The system that I was using at the time recognized the SSD, and I was off and running in minutes. At the time I didn't have much on the laptop, and simply copied some photos and a few articles onto a thumb drive, slipped a dvd into the drive, and installed the latest distro onto my new drive. Over the last few years I've used Ubuntu, Mint and Debian distros. All three are based on Debian. The other thing about Linux that you may find interesting is the Linux Kernel, which is the main software upon which all the distros are built, is controlled by one man Linus Torvalds, the man that developed Linux.

Linus developed Linux in the early 90's, when he was having trouble getting computer time at school in a Unix system. I was introduced to Linux shortly after by a Sunstrand engineer who was talking about a pc at work that had been running for three months without crashing. At the time windows was not very stable, and would give you the "blue screen of death" (BSOD), at least once a day it seemed. Linux was not that easy to load at the time, but once you got it loaded it seemed to run forever. It has always been free, and the updates are free as well. Because the footprint is so small, it takes very little time to keep it updated, and because Linux only has about 5% of the computer market in the world, it has very few virus problems. The last I heard there were maybe a dozen virus programs that would affect Linux compared to thousands that Windows has to battle.

The Old Tech Guy, KB9RLW, has a recent YouTube video that talks about Andy's Ham Radio Linux. At the time, he made the video there was a glitch in the setup program. He explains how to get around the problem, but it is possible that the problem has already been fixed by the time you get this. Frankly, I have not had a lot of luck with the Ham radio distros, and I suggest using Ubuntu or Mint and then check to see if it contains Synaptic Package Manager, and if not add it to the program. When you get Synaptic running on the left hand side you will find a list of categories with Amateur Radio at the top, and then Amateur Radio Universal as the second group which has the most programs. Find something you want to try. If you click on something it will ask if you want to add it. If you do click on the box and it will add the program and anything that is needed to support it. Each program will have a description before you download it. You will be surprised what is available and all are free and are open source programs. If you have programming skills you can join the groups that run the projects and help fix problems or add features to the available programs. If you are like me and really don't know programming, you can report any problems that you have if you want to. If there is another program you need for something, just use Synaptic's search and it may come up with several to try. Linux is fun to play with. Give it a try. Download a distro that you want to try, it will be in an image file that can be put on a DVD or thumb drive. Once you make a DVD or thumb drive with it, just boot your computer to it and try it without adding it to your hard drive. With the DVD it will run a lot slower, but with a thumb drive it might just surprise you. Have fun! That's what this hobby is all about.

73, Larry - AC9GO  
[larry.schubert@gmail.com](mailto:larry.schubert@gmail.com)

## Antenna Gain Facts

### Decibel over a 'dipole' ('dBd') versus Decibel over an 'Isotropic Radiator' ('dBi')

To get comparable numbers in measuring the gain of antennas, an isotropic radiator (a theoretical radiator) must be defined as one with **zero gain (which is unity gain)**, that we write '0 dBi'. The radiation pattern of this antenna is circular and even like a sphere centered on the antenna viewed in space. But such a pattern does not exist on earth, as there are numerous objects and obstacles that alter this theoretical pattern. **In practice comparison is normally made in measuring the field strength produced by a 'Hertz' antenna**, (the name 'Hertz' is used in honor of Heinrich Rudolf Hertz, the Scientist who developed it). **A Hertz is also called a 'Dipole', 'Doublet', 'Halfwave' or 'Ungrounded'**. It is placed at the same height and used in the same polarization as the antenna under test.

**With this comparison model we can accurately measure the gain of any antenna.** Let's begin with the simplest case of a dipole. What is it's the gain of a dipole? From various measurements we can estimate it at 2.14 dBi (gain over an isotropic antenna). In fact we should say 2.14 dBd, thus comparing the dipole to itself instead of speaking in dBi, which is never met, excepting in simulation programs. In this context it is not impossible to find a dipole offering a 6 dBd gain placed over saltwater (or 8.14 dBi). **Each frame of reference is thus valid, as long as it is used consistently and clearly, which is furthest from what is used.**

**Some people, including manufacturers, will say that their antenna has a 5 dB gain.** Compared to what reference? **Stating the gain of an antenna without a reference is meaningless. It should be stated as the antenna offers a 5 dB gain over an isotropic radiator (5 dBi).** In this case the antenna has a gain of 2.86 dB gain over a dipole ( $5 \text{ dBi} - 2.14 \text{ dBi} = 2.86 \text{ dBd}$ ). A gain below 3 dB is not much and the improvement is not very appreciable, but using a real life Antenna in the field a 0.5 dB can mean hearing or not hearing a station. So we have to put this value in context and translate it to actual field applications to understand what advertisers write. **Some will say that their antenna offers a 10 dBi gain. Well, fine! But what does it mean? In the field this antenna has really a 7.86 dBd ( $10 \text{ dBi} - 2.14 \text{ dBi} = 7.86 \text{ dBd}$ ) compared to the dipole.** This is not a very high gain, especially if the new antenna is expensive! All manufacturers do not compare their antennas to the same reference antenna; some measure them against a dipole reference (in dBd) but some measure them against a isotropic reference (in dBi). Both figures are completely different. **So instead of using gain figures, advertisers would be smarter working with decibels.**

Go Figure! - Kurt - KE9N



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

# 2023 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), or give it to one of the RARA officers)

Date: \_\_\_\_\_ (mm/dd/yyyy)

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.

\_\_\_\_\_

\_\_\_\_\_

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 or use the PayPal link below to use PayPal, and email your completed form to: [w9axdrara@gmail.com](mailto:w9axdrara@gmail.com) to complete your membership application. *When prompted by PayPal, please use "friends and family", so there are no fees incurred.*

PayPal Link:



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