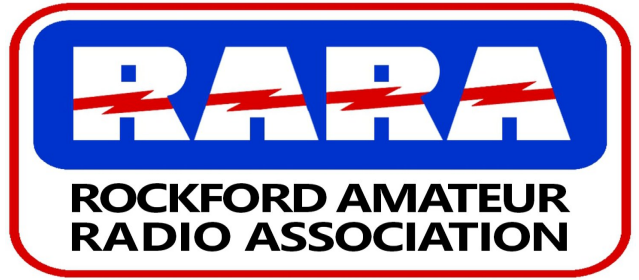


HAMRAG

Visit our website for more club and area ham information at www.w9axd.org



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.



Thanks to this month's contributors to the Ham Rag

Greg KE9EOT, Larry AC9GO, Paul WB9HGZ,
Robert "Grizz" W3GRZ and our featured NCO, Mike KB9SSV

New Website Coming Soon!

Editor's Note

If you would like to have something published, please call me at 815-505-8170, or email me at w9yum.vs@gmail.com

Articles are welcome and encouraged from all!

Due Date for the May Ham Rag is Tue April 28, 2026

73, Verna—W9YUM, Editor

NEXT MEETING

FRIDAY— April 10, 2026 - 7:00pm

**Program: Satellite Weather Images
Dave Gauger, W9CJS**

OSF St Anthony Med Center
(Foundation Room-ground/cafeteria level)
5666 East State Street, Rockford

Social Time following meeting at Gerry's Pizza
7403 Argus Drive, Rockford

April 2026

**Calling CQ for
over 70 years**

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President's Message— Larry McFall, KD9HKX

Greetings!

It's hard for me to believe we're in April and planning is already underway for Summer Field Day which is about Emergency Preparedness and Emergency Operations and is a test of the club's ability to respond to the need, for emergency communications, in our community, during a disaster. While testing our preparedness for a disaster, there is a contest component to field day that takes in lots of factors, including the number of contacts made. Field Day is a great time for camaraderie, teaching the public about ham radio, and making new friends. Doug KE9CNS is chairing the event with the help of Matt W3MBX for the radio setups. Volunteers are needed for setup, tear down, operating teams, GOTA station, public relations, and more! While we are on Emergency Preparedness, if you have not already checked out Winnebago County Skywarn, you will want to do that—there is more further in the issue on their plans.

Don't forget the fun coming up on May 17 with the Swap Meet and antenna build project. There is definitely something for everyone.

In closing, I'm sure, most of you are familiar with the "Amateur's Code". In short the radio amateur is Considerate, Loyal, Progressive, Friendly, Balanced, and Patriotic. In communications on the air two of the most important aspects of the code are consideration and friendliness. Friendliness entails a lot of different aspects. The operator should not only be polite on making contacts but he/she also should be polite and thoughtful when rag chewing. A ham should always remember to respect the opinions of the other people that they are communicating with. Friendliness also entails offering advice to less experienced operators but in a friendly matter not with a "you should be doing this" but "you might want to try this." *And lastly friendliness also entails remembering that there is a larger audience listening than just those participating in a conversation and what is said may result in an opinion made of an entire group.*

I hope to see you on Friday, April 10 when we return to in person meetings. It will be nice to get together as a group! Take care and enjoy the nicer weather ahead of us!

73s—Larry KD9HKX

RARA Board and Local Nets

Tuesday, April 7, 2026 RARA Board Meeting 7:00pm on Google Meet
Friday, April 10, 2026 RARA Membership Meeting 7:00pm OSF St Anthony

2026 RARA Officers and Directors

Officers:

President - Larry McFall, KD9HKX, lpmcfall@pm.me
Vice President - Jamie Cook, W9JTC, W9JTC@yahoo.com
Secretary - Guy Adams, KE9CZZ, ke9czz@gmail.com
Treasurer – Verna Schubert, W9YUM, w9yum.vs@gmail.com

Directors:

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Webmaster - Verna Schubert, W9YUM, w9yum.vs@gmail.com
Repeater License Trustee - Doug Passmore, KE9CNS, dgpasmore@att.net
Repeater Chairman - Matt Marshall, W3MBX, matthew.marshal@gmail.com

Local Net Information

- Mon** - 7:00pm - RARA Info. Net & CW Lesson, 146.610 (-0.6) offset, pl 114.8
- 8:00pm - McHenry County RACES Net, 146.835 (-0.6) offset, pl 91.5
- Tues** - 7:00pm - RARA Tuesday Night Net & CW Lesson , 146.610 (-0.6) offset, pl 114.8
- 7:30pm - Rock County Public Service Net, 145.450 (-0.6) offset, pl 123.0
- Wed** - 7:00pm - Wed Night Chat Net, 146.610 (-0.6) offset, pl 114.8
- 7:00pm - Stephenson County 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 - Winnebago Co. Skywarn Net, 147.195 (+0.6) offset, pl 114.8
- Fri** - 8:00pm - Friday Night Fun Net, KC9GCR, 146.610 (-0.6) offset, pl 114.8
- Sat** - 8:00pm - RARA Ragchew Net, 146.610 (-0.6) offset, pl 114.8
- 8:00pm - Pink Hamsters YL Net, Milwaukee 146.910 (-0.6) offset, pl 127.3
- 9:00pm - Saturday Night Fun Net Milwaukee 146.910 (-0.6) offset, pl 127.3
- Mon. thru Friday** - 8:00am to 9:00am - Senile Net, WD9BB, 14.287 (HF USB)

Save the Dates!

Friday, April 10, 2026 (7pm)

RARA Monthly Meeting

We are back to **in person** meetings at OSF in the Foundation Room and we hope to see you there! Don't forget Gerry's Pizza social time following the meeting.

Saturday, April 11, 2026 (8am)

Beloit Club Monthly Breakfast

Denny's (Fly-J) South Beloit

Monday, April 20, 2026 (7:30pm)

Winnebago County Skywarn Monthly meeting

OSF St Anthony—lower level of main entrance in the Foundation Room

Thursday, April 30, 2026 (7pm)

Winnebago County Skywarn Severe Weather Training Exercise

See page 9 for full information

Sunday, May 3, 2026 (7am –1pm)

Dekalb Hamfest

Sponsored by our friends at the Kishwaukee Amateur Radio Club

Flyer with more information is included in the Ham Rag

Saturday, May 9, 2026

Starved Rock Marathon

See page 16 for full information

Sunday, May 17, 2026 (9am—noon)

Spring Swap Meet—Hononegah Forest Preserve (Indian Rest Shelter)

Coordinated by Larry Lisle K9KZT

No sponsor, No admission, No vendors, No VE testing!

Just a bunch of hams getting together to swap stuff and socialize.

Sunday, May 17, 2026 (12:30pm—?)

Hononegah Forest Preserve (Indian Rest Shelter)

RARA / GBARC Build Project—49:1 Un-Un for End-Fed HalfWave Antenna

Cost is \$25 to cover supplies—full details on page 12

Saturday, June 27 - Sunday, June 28, 2026

Summer Field Day—YMCA Camp Winnebago

This annual event is always held on the **fourth Full weekend in June**. Please get it on your calendar as a lot of help is needed for a successful and fun event! Field Day chairman is

Doug Passmore, KE9CNS.

RARA members—please be sure the email address you provide is one you check regularly to make sure you receive club updates and the monthly Ham Rag. **Don't forget to let us know if there are changes to your email or phone number, ARRL membership status, or call sign.** Please email updates to Verna W9YUM at w9yum.vs@gmail.com & add me to your contacts.

Behind the Mic—Meet Your Net Control Operators

This new monthly feature will spotlight one or two of the net control voices you hear weekly or multiple times a week on both RARA and other local nets. Although they each bring their own style and the new formats are varied, they all show up week after week to make sure nets run smoothly, newcomers feel welcome, and old friends stay connected. This Month features two Net Control Operators (NCO).



This month's NCO is usually heard on the Wednesday Chat Net and fills in as NCO on other nets as needed—you know him by Mike KB9SSV. Let's get started!

How long have you been a ham radio operator and what got you interested in the hobby?

Hi, I am Mike, KB9SSV, and I got into the ham radio hobby in 1997, studied for the Technician class with the help of KC7ZXO (SK). This was back when the FCC had the 6-tier structure of licenses, passed the tech. in 1998 then upgraded to Tech. Plus (tech. and novice) doing 5 WPM code also in 1998. Passed the General in 1999 (13 WPM code). Started studying for the Advanced in 2000 but the new 3-tier FCC license structure kicked in, and poof, no more advanced, so I stayed a General for 23 years, then when I retired, finally had some time to work on the Extra, which I passed in 2022. In 1995 I was cleaning out the attic and found two Midland CB radios which my wife used in the 1970s. I goofed around with them for a year or so and soon discovered the pros and cons of 11 meters. So, I guess for me, CB was a launching pad for ham radio

What do you enjoy most about serving as a net control operator?

I enjoy running a net and bring up some various topics that may interest some Hams and get on the air.

What type of net do you provide NCO services for?

Most of the time I run the Wednesday chat net 2 or 3 times per month, it is basically to get opinions on a topic brought in at the beginning of the net by net control.

What's the most memorable or challenging experience you've had while running the net?

A few times I brought up some subject matter that could have lasted for days on the chat net, but since I try to keep the net under an hour, that's not possible (ha ha)

Behind the Mic—Meet Your Net Control Operators

What advice would you give to someone who's thinking about becoming a net control operator for the first time?

For anyone wanting to be a net control operator ...First of all, think of a way to layout the log book that's easy for you to navigate, make sure you have a reliable signal into the repeater as not to cause dropout or a scratchy input, ignore any malicious signals from non-hams trying to cause interference to the net, ask questions to keep the interest high on the folks in the group.

Beyond the nets, what are your favorite ham radio activities or modes?

I like HF SSB on all HF bands, do a little bit of CW, most of all I like to make the most effective and least complicated antennas.

What piece of equipment is in your station that you couldn't live without, and why?

There is no one piece of particular equipment that I could not live without, if a radio dies, find another one or fix it. if a coax goes bad, replace or repair it. Probably the most important would be the antennas; if they go out then the station is shut down until repairs are made.

Editor's Note:

Mike is currently a board director and will be the coordinator for RARA participation at the Belvidere Ham Fest so you will hear more from him about that subject as we get closer to the event which will be held in September.

From Freeport Illinois:

The Friday Night Fun Net with Jimmy Dorsey, KC9GCR

Every Friday at 8PM Central Time
W9AXD Repeater 146.610 Rockford Illinois

Live Streamed on the
Kerry Tatlow YouTube Channel

<https://www.youtube.com/@ktatlow>

The Stateline Rag Chewer's Net—Paul WB9HGZ



The Stateline Rag Chewer's Net *AKA The Rockford Six Meter Net*

Rockford had a very active six meter AM population in the 60s 70s and early 80s. Unlike many cities with channel 2 and 3 television stations, Rockford's lowest television channel was 13, so television interference from six meters was nowhere near the problem it was in cities where lower channels were in use. Many of the group gathered every evening on 50.4 mHz for the Stateline Rag Chewer's Net. An informal get-together consisting primarily of RARA members, but also frequent guests who were always welcome. Most participants were from Rockford or the immediately surrounding area, but many times, others from Beloit, Freeport, Belvidere and even Sharon, Wi. would join in.

A typical net would have 6 to 8 participants but occasionally the number would reach into the teens. Net control duties were rotated among participants with each person generally taking a particular night of the week and consistently performing net control duties on that day. On Mondays, the net was usually run from W9RGU, at the Red Cross building on Main Street. I often ran the net from W9RGU and also would run net control on Saturdays from home. Other frequent net control operators were W9ZZL, Lee; WB9ETH, Jim; W9VZ, Claude; WA9WVY, Leland and WB9HNJ, Art. WA9EZT, Dan often visited from Beloit and W9AVG, Roy was a regular visitor from Sharon, Wi.

Frequent net participants were:

W9MAP, Ernie
WB9ILH, Ray
WB9JAV, Steve
W9FX, Red
WB9BHY, George
WA9BLI, Fred
WB9AZA, Jim
WA2PDS later WB9OGD, Frank
WA9IZK, Hal
W9CIU, Bill
K9VRL, John

The Federal Communications Commission officially removed the mandatory logging requirements for Amateur Radio stations in the United States in 1983. On the following page is a sample log page from my net control operations in 1972.

The Stateline Rag Chewer's Net—Paul WB9HGZ

DATE TIME	STATION CALLED	CALLED BY	HIS FREQ. OR DIAL	HIS SIGNAL RST	MY SIGNAL RST	FREQ. MHZ	EMIS- SION TYPE	POWER INPUT WATTS	TIME OF ENDING QSO	OTHER DATA	QSLs	
											S	R
1/16/72												
2100	X	W9FX				50	A3	20	2116	NET		
"	X	W9VZ							"	"		
"	X	WB9ILH							"	"		
"	X	WB9ETH							"	"		
2117	X	WB9HNJ							2151			
1/23/72												
2102	X	WB9HNJ							2123	NET		
2102	X	W9AVG							"	"		
"	X	WB9AZA							"	"		
"	X	K9VKL							"	"		
"	X	W9FX							"	"		
"	X	W9ZZL							"	"		
"	X	WB9ILH							"	"		
"	X	WB9ETH							"	"		
1/29/72												
2116	WB9HNJ	X							2138			
1/30/72												
2100	X	WB9HNJ							2123	NET		
"	X	W9AVG							"	"		
"	X	W9ZZL							"	"		
"	X	W9WTK							"	"		
"	X	W9GND							"	"		
"	X	W9FX							"	"		
"	X	WB9ETH							"	"		
"	X	WB9ILH							"	"		

When I was active in the net in the early 70s, pretty much all participants were using vacuum tube gear, most commercial but some homebrew. Transceivers were common although there were some using separate transmitters and receivers. Most "separates" used an HF or shortwave receiver with an outboard VHF converter. The early six meter transceivers, although they were contained in a single enclosure, had very little transmit/receive circuitry in common. Aside from perhaps using the audio output tube as the transmit modulator, they were for the most part a separate transmitter and receiver in one cabinet with a relay to switch between the two.



Many transmitters and transceivers had VFOs, but it was common, if not universal, for every six meter operator in the day to have at least one crystal; 8400 kHz which, when multiplied by 6, gave you the calling frequency of 50.4. Again, with transceivers being really separate units, it was a chore using a VFO. There was a "spot" switch that applied power to the VFO allowing you to hear its signal on the receiver and then tune the VFO to the receive frequency. As a vast majority of the operations were on 50.4, a crystal just made sense. Many transmitters and transceivers included multiple crystal sockets with a rotary switch to select the one that you wanted to use. If there is interest, I can provide an article at a later date describing the six meter equipment of the era in more detail.

73,
Paul, WB9HGZ

Skywarn Severe Weather Training Exercise—Greg KE9OET



The poster features the Winnebago County SKYWARN logo at the top left. Below it, the text reads "SEVERE WEATHER TRAINING EXERCISE" in white on a black background. The date and time are "THURSDAY, APRIL 30, 2026" and "7:00 PM (Pre-Net at 6:45 PM)". A background image shows a dramatic sky with a large, dark storm cloud and a bright light source. Below the date, there are two columns of text: "WHAT TO EXPECT:" and "FREQUENCIES:". The "WHAT TO EXPECT:" column lists: "▶ Simulated Severe Weather Event", "▶ Thunderstorms & Tornado Scenario", "▶ Live Net Operations", and "▶ Real-Time Reporting Practice". The "FREQUENCIES:" column lists: "▶ Amateur Radio: 147.195 MHz" and "▶ GMRS: 462.575 MHz". Below the text is a weather radar map showing a storm system over the region. At the bottom, there is a yellow and black striped banner that says "THIS IS A TRAINING EXERCISE" and "No real emergency conditions will be occurring". Below that, it says "ALL SKYWARN SPOTTERS, AMATEUR RADIO & GMRS OPERATORS WELCOME!". At the very bottom, the website "www.WinnebagoCountySkywarn.com" is listed.

The Winnebago County SKYWARN program will conduct a countywide severe weather training exercise on **Thursday, April 30, 2026, at 7:00 PM**, utilizing both Amateur Radio and GMRS communication systems.

This coordinated exercise will simulate a developing severe weather event across Winnebago County and is designed to strengthen communication, improve reporting accuracy, and enhance overall preparedness among volunteer weather spotters and radio operators.

The exercise will begin with a pre-net at **6:45 PM**, followed by a structured activation at 7:00 PM. Participants will engage in a series of simulated weather scenarios, including thunderstorm development, severe weather warnings, and a tornado warning situation. The exercise will conclude with a controlled deactivation and review period.

“This training is an important opportunity for our spotters and operators to practice real-world communication during rapidly changing weather conditions,” said SKYWARN coordinators. “Our goal is to ensure that when severe weather impacts our area, our network is ready to respond effectively and efficiently.”

The event will be conducted across both amateur radio and GMRS platforms to test interoperability and expand participation among local radio users. Net Control stations will manage communication and guide participants through escalating simulated conditions.

Key Exercise Objectives Include:

- Practicing SKYWARN Net activation and control procedures
- Reinforcing standardized severe weather reporting methods
- Enhancing coordination between amateur radio and GMRS operators
- Simulating real-time severe weather escalation scenarios
- Identifying areas for improvement in communication and coverage

Skywarn Severe Weather Training Exercise—Greg KE9OET

All communications during the exercise will be clearly identified as part of a training event. **No simulated reports will be forwarded to the National Weather Service.**

Members of the public who monitor local radio frequencies may hear exercise-related traffic during this time. There is no cause for concern, as this is a planned training operation. Winnebago County SKYWARN encourages all trained spotters, amateur radio operators, and GMRS users in the region to participate.

About SKYWARN

Winnebago County SKYWARN, a program of the Rockford Amateur Radio Association, is a volunteer program coordinated with the National Weather Service that trains individuals to observe and report severe weather conditions. These real-time reports provide critical information to meteorologists and help support timely warnings that protect life and property.

Frequencies

Amateur- 147.195

G.M.R.S- 462.575

Greg Wernick Jr, Director

A promotional poster for a Winnebago County SKYWARN Monthly Meeting. The background features a dramatic sky with dark, heavy clouds, a bright lightning bolt striking a radio tower on the left, and a red barn in the foreground. The text is overlaid on the image.

WINNEBAGO COUNTY
SKYWARN
Monthly Meeting

April 20th, 2026 - 7:30p / OSF St. Anthony's
Foundation Room in the Lower Level of Main Entrance.

Join the Winnebago County SKYWARN team for our monthly meeting.

For more information, please E-Mail: WinnebagoCoSKYWARN@gmail.com

From the Workbench by Larry AC9GO



Building the End Fed Half Wave (EFHW) Antenna

If there is one thing I would recommend for the new ham just getting into HF radio it is an all band antenna. This year's joint project between RARA and the Beloit Club is the UNUN (A transformer that matches an UNbalanced line (coax) to a UNbalanced antenna, because it is fed on the end and not the middle). The reason this is a good choice for a new ham to the HF bands there are differences in all the bands that can limit or multiply your experience as to what you can do or want to do as a ham. You will find that some bands work great during the day but not that great at night while others are the exact opposite. There are bands that work well both day and night, but the time of day may differ for the greatest DX. The antenna selected for this project can be used on 80 thru 10 meters or 40 thru 10 meters dependent on the length of wire, and counterpoise. Both of these antennas use the same un/un but require a different length of wire. The 80 meter thru 10 requires about 133 ft of antenna, and the 40 thru 10 requires about 66 ft of wire.

What you will be building is the 49 to 1 un/un which includes the box the toroid and everything in and on the box. All you have to do is hook on the wire for whichever antenna you want the 80 meter or the 40 meter version. They are built to work on all the bands between 80 to 10 or 40 to 10 which ever you decide to make. **It is suggested that you start out with an extra foot or so of wire so it can be trimmed to work for your configuration.** We will have people on hand to help you build the box and coil inside as well as solder the joints, and answer any questions you may have about setting up the antenna. The price for the box and everything to make the un/un is \$25. The box will be drilled in advance and all of the hardware is stainless steel. We have enough parts to make 25 units. Purchasing all of the parts in bulk has helped keep the project price down. The toroid is one of the best and has been found to be quite efficient.

Kurt, KE9N took the time to check out the efficiency of the antenna on the different bands, and the result was impressive. This was tested from 3MHz to 30MHz which completely covers 80 thru 10 meters.

Testing of Fair-Rite P/N 2643251002 (#43) cores for EFHW Antenna

Two of the above cores were used and each were wound with 14 total turns of #18 enameled wire. The primary 50 ohm tap position was arrived at tapping off at the second winding in an autotransformer arrangement. The remaining turns were wound in a close wound fashion. Each transformer had a 100pf 3KV capacitor across the input for better 10 meter matching.

From the Workbench by Larry AC9GO

The transformers were tested in a back-to-back arrangement. The input signal was from a tracking generator supplying a frequency range from 3 MHz to 30 MHz. The output signal was fed to a spectrum analyzer. Since there are two transformers fed in series, the losses encountered are cut in half, resulting in the loss of just one of the transformers.

The results of the test show that the efficiency's of the transformer ranged between 86% and 88% on the bands from 80 through 10 meters. 80 and 10 had 86%, 40, 30, 20 and 12 came in at 87%, and 17 and 15 had the highest at 88% efficiency. This is good when you consider that any transformer will have some loss. Our thanks to Kurt KE9N for testing this antenna, and sharing these results.

Have fun with your radio and keep smiling—
73 Larry AC9GO

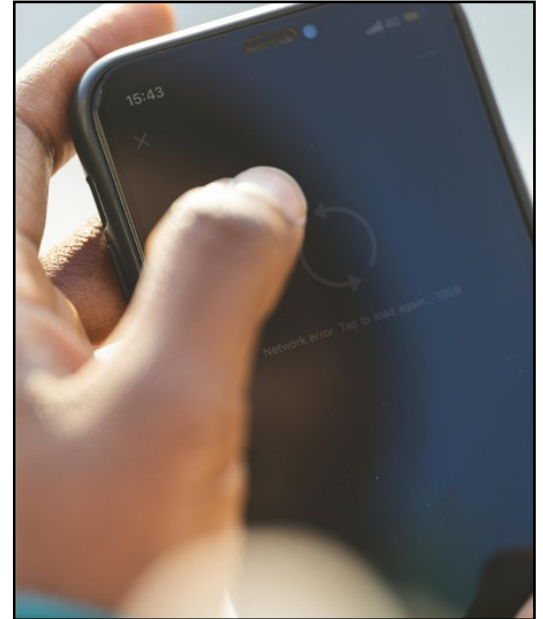
This year's build project coordinated by the Rockford Amateur Radio Association (RARA) and the Greater Beloit Amateur Radio Club (GBARC) is a **49:1 UNUN** impedance transformer for End Fed Half Wave (EFHW) antenna rated at 100 W. A kit has been assembled that includes everything you need to get started: a pre-drilled enclosure, all hardware (stainless steel), toroid and wire for wrapping. The build team will provide hands-on guidance for winding your own toroid, which is the key component that creates the impedance match that makes the EFHW antenna work.

The finished antenna will cover **80 through 10 meters** for the 80-meter version, or **40 through 10 meters** for the 40-meter version. Experienced builders will be on hand to walk you through every step of the assembly. **Note:** The kit does not provide the wire you will need to cut for your target band and a counterpoise to match. While you will need to provide the wire to complete your antenna, you will not need to bring it to the event unless you would like guidance. (14-gauge stranded wire is recommended and you will need approximately 166 ft for 80-meter and/or 66 ft for 40-meter). Enough parts have been purchased for **25 assemblies** and with each priced at **\$25**.

- **Date:** Sunday, May 17, 2026
- **Time:** Swap Meet & Social at 9:00 AM; **Build session begins approximately 12:30 PM and continues until finished**
- **Location:** Hononegah Forest Preserve (Indian Rest Shelter), Rockton, IL
- **Lunch:** A hot dog lunch will be provided after the Swap Meet (or bring your own)
- **Fee:** \$25 Required in advance and can be made at the April GBARC and RARA in-person meetings or by PayPal [here](#). Make sure to note it is for the build project.
- **To Register:** email Verna W9YUM at w9yum.vs@gmail.com and let her know you plan to attend.

Citizen Mesh Networks Part 1: Introduction - Grizz W3GRZ

It was January 15th, 2026. As the start of the business day began to unfold, Verizon customers suddenly started experiencing issues with their phones. Despite a strong signal, they could not call, text, or use mobile data. It took Verizon engineers nearly 10 hours to fully restore service. During that time hundreds of thousands of predominantly vulnerable customers were cut off from their primary means of communication with the outside world.



We rely on these services to remain available 24/7. but the reality is that one technical issue, natural disaster, or cyberattack can take down an nationwide network. You won't always be able to reach your loved ones in a time of need. Amateur Radio is a powerful tool, but licensing requirements puts it out of reach for many. How do we bridge the gap to stay in contact with neighbors, friends, and family during these events?

This is where Citizen Mesh Networks come into play. Using open and unlicensed bands at 433 MHz, 915 MHz, and 2.4 GHz, these wireless networks allow anyone of any background to participate. Kids, parents, team leaders, and volunteers all have the ability to stay in contact, often for less than a \$50 one-time purchase of a battery-powered companion device. No subscriptions, no personal information, and no greedy middle-men.

In general computing, a Mesh Network is a often described as a group of nodes or devices that participate in the routing of messages. The primary advantages of Mesh Networking over more traditional networking are self-healing characteristics and dynamic routing paths. This allows nodes to be mobile, often leaving and re-joining the mesh from disparate locations. The dynamic nature of the routing allows messages to reach the destination, even if they are directly out of range.

Popular examples of Mesh Networking include APRS Digipeaters, Zigbee for smart devices, WiFi meshes for increasing coverage, LoRaWAN for industrial applications, and Helium for cryptocurrency. Each of these technologies implement their own flavor of mesh topology with differing device roles and behaviors. The use-cases vary, but the core concepts remain the same. Each node builds on the network.

Mesh Networks do not have to operate in isolation. Different networks with mixed topologies can be employed. Almost all Mesh topologies employ a Gateway device that forwards the traffic over a more traditional network. If a node is not in range of the gateway, their messages will be forwarded by other nodes until it reaches a gateway.

Citizen Mesh Networks Part 1: Introduction - Grizz W3GRZ



This is what occurs when you send an APRS message to a phone number. If a given Digipeater hears your message, either directly or repeated from another Digipeater, it can then forward that message over an internet connection to the SMS carrier for delivery.

The robust nature of a mesh comes with a major drawback in the form of Broadcast Storms. Messages get stuck being forwarded from node to node within a mesh eventually completely saturating the network. Many networking protocols will employ a Hop Count or Time-to-Live mechanism that causes the message to eventually be discarded.

Hop Counts and TTLs are simple counters that go up or down until it reaches a given threshold. As the name implies, each node or hop in the network will cause that number to increment (or decrement). Most meshes can configure this threshold, but doing so can also saturate the limited channels. There are other ways to prevent this saturation, but the overall goal is to only forward the messages if they have a reasonable chance of reaching the destination.

Mesh Networks have their place, especially in highly dynamic environments such as urban areas with tall structures or geographical areas where cell service is limited. Using a common network protocol, many individuals can communicate over large distances, over mountains, and through each other. When disruptions occur, they can bridge the gap. With the right combination of low-cost technologies they can also be cheaply deployed in remote locations running primarily on solar power.

In the next series of articles, we'll dive deeper into the technologies that enable Citizen Mesh Networks to operate independently and how anyone regardless of experience can get involved.

Starved Rock Country Marathon—May 9, 2026

We are looking for RARA members and friends interested in working this event. If you are interested, please reach out to Scott (815-790-9690) or at kb9vrw@gmail.com. Matt W3MBX and Verna W9YUM worked the marathon last year and have signed up for this year—why not join them?

In anticipation of providing amateur radio communications at the Starved Rock Country Marathon on Saturday May 9, 2026, we have come up with what we think is a novel idea. We'd like to introduce Public Service Event communications to those that may have never participated in something of this nature previously. What we'd like to do is get groups or clubs to cover an assigned rest/aid station with members from their own area. This is a low stress event, as few as two amateurs could cover an assignment but why not bring a carload and get those new people involved? The race generally starts at about 07:00 a.m. and is wrapped up around 15:00 (though early stations may close before noon). The start/finish line is in Ottawa, IL and the course follows the Illinois River into and through Starved Rock State Park. HT's can handle some of the communications, but a mobile rig and an external antenna is recommended but 30' masts certainly are not needed. Please consider signing up as a club to cover one of the aid stations. (Depending upon response, an amateur that has worked this event in the past will be assigned at your station with you).

Registration [Link](#)

Hope to see you on the registration list. There will be communications and training taking place in advance, but don't hesitate to reach out if you have any questions. Parking will not be an issue at the assignments and Ottawa offers many restaurants and coffee shops for your "After Event" refreshments. The map below is the historical route used but subject to fine tuning. Full marathon starts/ends in Ottawa while the 1/2 starts in Starved Rock State Park and finishes in Ottawa. Please talk this up at your breakfasts and meetings. Spring will be in the air!

Map below is from previous years, but route will be similar or the same.



Hamfest, Contest and DX Links

hamfests and Swapfests in Northern IL, Northwest IN, and Southern WI **Click the link**

AMATEUR RADIO EVENTS



THE HAM RADIO COMMUNITY IN ACTION!

Thanks to K9MSG, Kirk Musselman— www.amateurradioevents.com or use link above

No more struggling to find local foxhunts, Hamfests, public service/volunteer events and more. **Over 50 events** are all in one place including maps, descriptions, contact links, costs, and more. And, we just added a *Guide for Amateur Radio Volunteers* and a list of worldwide *Amateur Radio History Events* which you can join remotely.

The site will keep updating and expanding to carry more types of events (training, POTA, etc.) so bookmark the site and join us as we bring event organizers and amateur radio operators together to grow the amateur radio community. Please use the contact page to share suggestions, updates, additions, or comments.



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Link to the **WA7BNM Contest Calendar** or go to www.contestcalendar.com

Want to see what's new in the world of DX? Select the link below and make sure you check out the weekly bulletins or go to www.dxworld.net

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DX WORLD.net

Local Ham & GMRS Breakfasts



WEEKLY 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*



MONTHLY SATURDAY MORNING BREAKFAST

The Greater Beloit Amateur Radio Club (GBARC) meets
monthly on the 2nd Saturday
of the month at 8:00 a.m.

Denny’s Restaurant
Flying J Truck Stop (IL 75 & 190/39)
All are welcome to join the group for food and
lot’s of “ham” talk.



BI-MONTHLY SATURDAY MORNING BREAKFAST




The Rock River Valley GMRS Breakfast Club meets on
the First and Third Saturdays each month at 9:00 a.m.

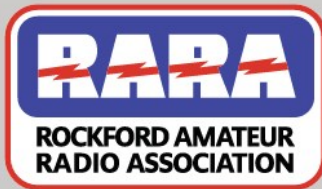
Mr. C’s Family Restaurant
4309 W State Street
Rockford, Illinois 61102

The RARA Store—Time for Spring Items!

The RARA Store has been very well received. Thanks to all of you purchasing shirts, hats, mugs, and more. RARA receives a commission on each purchase made, what better way to promote RARA and your enthusiasm for amateur radio, all while supporting your club and local business!

To access the store, scan the QR-code below or select this link  [SHOP RARA STORE](https://stores.inksoft.com/rara)

[HTTPS://STORES.INKSOFT.COM/RARA](https://stores.inksoft.com/rara)



**ORDER YOUR
ROCKFORD
AMATEUR RADIO
ASSOCIATION
GEAR TODAY!**



**SCAN
HERE
TO SHOP
NOW**



VIEW MORE PRODUCTS ONLINE

DeKalb Hamfest



The DeKalb Hamfest



Sponsored by the Kishwaukee Amateur Radio Club
 Sunday...May 3, 2026... Front Gate 7 am to 1:00 pm
 Vendor/Tailgate Setup—Saturday 1 PM to 9 PM
 and Sunday 6 AM to 8 AM via Back Gate
 \$8.00 Advance Ticket (Double-Stub—See Below)
 \$10.00 Adm at the gate -No Large Bills (Single Stub).

Overnight Camping on Fairgrounds \$25 per night—
 Includes Electric and Sewer

Rain or Shine
 2 Lg Unheated Bldgs
 3 Cash Prizes
 Prize Drawings Every
 Half Hour

Free Outside Tailgating
 No VE Testing
Chairs not provided
No Valet Parking
You Unload/Re-Load
Carts not Provided

Food Vendor: Hyvee
Fairground Regulations
Prohibit Vehicles in
buildings

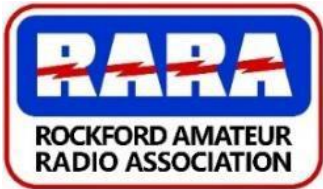


Always the First Sunday in May. May 3, 2026
Sandwich Fairgrounds, Sandwich, IL
(Just North of RT. 34 Intersection of SUYDAM and GLETTY Roads)
TALK-IN: KARC Repeater 146.730 pl=100 (-) or 146.52 Simplex
****** ATTENDEES USE MAIN GATE ONLY ******

????????????? Questions ??????????????
Phone: Bob Yurs—W9ICU—Hamfest Chairman at 815-757-3219
Or e-mail bob@w9icu.us
KARC Hamfest Webpage / Hotel Info: www.karc-club.org

Return to: KARC, PO Box 371, DeKalb, IL 60115
Deadline: April 20, 2026 MUST INCLUDE SASE FOR ADVANCE TICKET SALES

Advance Tickets will not be for sale on site
 _____ **ADVANCE TICKETS @ \$8 each (Dual Stubs)**
 _____ **INSIDE TABLES @ \$10 each (FREE TAILGATING)**
 _____ **Total...Please make checks payable to KARC**
 _____ Telephone Number _____ e-mail address
 _____ Call Sign _____



website: w9axd.org
email: 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*

For Internet 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.

Click here for the PayPal link 

Mail in information: 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

Thank you for your support!

Date: _____ (mm/dd/yyyy) New Membership Renewal
Name: _____ Callsign: _____ License Class: _____
Street Address: _____ City: _____
State: _____ ZIP: _____ E-mail Address: _____
Phone - Main: _____ Alternate: _____

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

(check all boxes that apply to the following questions)

What type of equipment do you own? Base Mobile Handheld
What band capabilities do you have? HF VHF UHF
What are your favorite operating modes? Voice CW PSK31 FT4/FT8 SSTV
What club activities can you help with? Field Day Hamfest Special Event
Can you operate under emergency power? Yes No
How did you hear about RARA? Other Member Internet Friend Listening on air

I would like to learn more about: Weather Spotting & Skywarn POTA Other (list below)

Other Comments:

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