

HAMRAG

Visit our website for more club and area ham information at <http://w9axd.org>, or join us on



RARA Mission Statement

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

May 2024

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.

Thanks to returning RARA members:
Mike Perry, K9OUP and Ron Scott, WB9PCA

Please put the following dates on your calendars:

Swap Meet & Social at Camp Winnebago Sunday, May 19, 9am-noon

This event is not sponsored by any ham club, all are welcome! No admission, no food except what you want to bring, no vendors or VE testing. Just a bunch of hams getting together to swap stuff and socialize! Questions? Larry, K9KZT, l.lisle@usa.net

Summer Field Day at Camp Winnebago, Sat & Sun, June 22-23

Field Day planning is underway! This is a great opportunity for new hams and those still exploring the hobby. See page 5 for more information.

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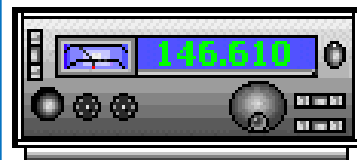
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RARA Membership Form

A Big THANK YOU to Randy Long, AC9OF

When I hit a brick wall in updating a number of areas of the website, W9AXD.org, Randy stepped up and was patient, provided education, and hands-on expertise to help me move forward. While the updating of the website is still a work in progress, what has been accomplished could not have been achieved without Randy's very valuable assistance!



NEXT MEETING

FRIDAY— May 10, 2024 - 7:00pm

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

“LiP04 Batteries and Solar Charging for Portable Operations.”
Presented by: Kevin Puckett, N9EGF

Local Events and Information

May 10, 2024 RARA Membership Meeting 7:00pm
May 22, 2024 RARA Board Meeting 7:00pm on Google Meet

2024 RARA Officers and Board

Officers:

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

Directors:

Antonio Felix, KD9YUK, 815-566-5705, toniofelix@hotmail.com
Larry Lisle, K9KZT, 815-397-9595, l.lisle@usa.net
Matt Marshall, W3MBX, 815-222-5959, matthew.marshall@gmail.com
Kevin Puckett, N9EGF, 815-218-1551, krpuckett@gmail.com

Hamrag Editor - Verna Schubert, KD9YUM, 815-505-8170, schubie2@charter.net
Webmaster - Verna Schubert, KD9YUM, 815-505-8170, schubie2@charter.net
Repeater License Trustee - Gordon Seaman, KC9NEX, 815-262-0294, kc9nex@gmail.com
Repeater Chairman - Kurt Eversole, KE9N, 815-389-2784, kurt.eversole@gmail.com

Local Net Information

Mon - 7:00pm - RARA Info. Net & CW Lesson, 147.195 (-) offset, pl 114.8
- 8:00pm - McHenry County RACES Net, 146.835 (-) offset, pl 91.5

Tues - 7:00pm - RARA Tech & Social 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 - RARA Chat Net, 147.195 (-) offset, pl 114.8
- 7:00pm - Stephenson Cnty. ARES Net, 147.390(+) offset, pl 114.8
- 7:30pm - Greater Beloit Radio Net, 147.120 (+) offset, pl 123.0

Thu - 7:00pm - Northern Illinois Skywarn Training Net, 147.195 (+) offset, pl 114.8

Fri - 8:00pm - Friday Night Fun Net, KC9GCR, 147.195(-) offset, pl 114.8

Sat - 8:00pm - Saturday Ragchew Net, 147.195 (-) offset, pl 114.8
- 8:00pm - Pink Hamsters YL Net, Milw., 146.910 (-) offset, pl 127.3
- 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)

Local Events and Information

Editor's Note

If you would like to have something published, please call me, or email me at schubie2@charter.net

Articles are welcome from all hams.

Wanted for the June edition— your favorite field day memories.

If it is your first field day, let me know what you are looking forward to!

Due Date for the June 2024 Hamrag will be Monday, May 27, 2024

73, Verna—KD9YUM, Editor



Well done!

Matt Marshall, W3MBX, upgrade to his Extra Class License

Kenneth William, KE9AMW, upgrade to his General Class License

For Sale by RARA

Programmed Baofeng UV-5RTP Radios (just a few left)

\$30 each—pick up at Club Meeting

Contact Larry McFall, KD9HKX

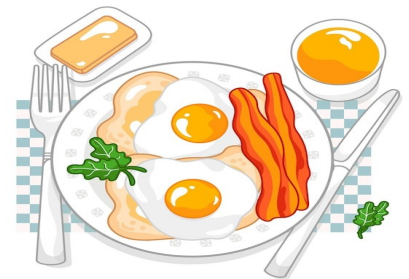
815-900-1820—lpmcfall@charter.net

FRIDAY MORNING BREAKFAST

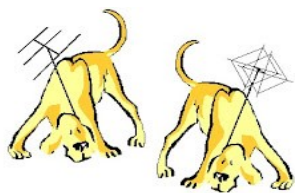
Meets every Friday morning from 7:30 am until about 9:00 am.
An informal gathering of ham folks, no affiliations necessary, good food
and good company.

Everyone is welcome to attend.

***“The Spring Garden Family Restaurant”
4820 N. 2nd Street
Loves Park, IL 61111***



Local Events and Information



Whether you are an Elmer, or a newcomer to ham radio, you are invited to participate in the Greater Beloit Amateur Radio Club's Fox Hunt.

The GBARC is hosting a foxhunt, Saturday, May 11, 2024 starting around 10am.

The Fox Hunt will begin following the 8am monthly ham breakfast held at Denny's Restaurant / Flying J Truck Stop (IL75 & 190/39). While there is no official starting point, many will start from the Denny's parking lot following breakfast.

RARA members, other fellow hams, and those interested in amateur radio are all invited will be The official start along with the simplex frequency will be announced on the Janesville Repeater, 145.450 minus offset 123.0 CTCSS. The fox will be transmitting on 146.656MHz —45 seconds on, 15 seconds off from somewhere in Rock County Wisconsin.

Contact brett@k9by.us with any questions.

For Sale from the estate of Scott Francis AA9SF:

Icom IC-22S, 2-Meter Transceiver, 10/1 Watts.....	\$45
Icom IC-208H, 2-Meter or 70-Centimeter, 2-M 55/15/5 Watts, 70-Cm 50/15/5 Watts	\$275
Icom IC-V8000, 2-Meter Transceiver, 75/25/10/5 Watts	\$175
Icom IC-28A, 2-Meter Transceiver, 25/5 Watts	\$70
Uniden BC120XLT Scanner, 100 Channel.....	\$35

All above units sold as working but untested.

Other Items:

Barker & Williamson 423 Filter	\$25
NIC 108KA, 12 Volt, 8 Amp Power Supply	\$40
Heathkit AM-2 SWR Meter.....	\$10
Home Brew 6-Meter Antenna Tuner	\$25

Manuals for the Icom radio's are available online.

Lower offers will be considered.

Contact:

Larry McFall, KD9HKX

RARA Secretary

815-900-1820 or

lpmcfall@charter.net

Local Events and Information



It's time for Summer Field Day; let's be radioactive!

June 22 – 23, 2024

We have an awesome plan this year and will be running two HF rigs; SSB and Digital/CW plus a GOTA (Get On The Air) station, a satellite station plus solar powered VHF station. Last year the GOTA station was a huge hit; it gave people the opportunity to run an HF rig without any pressure and get to

know the HF side of the hobby. Field day also gives everyone the opportunity to get to know each other better & have some face-to-face rag chew time. There is something for everyone and a way to try different things.

Stay the night. Bring your tent or camper (no hookups for the campers available) or even sleep under the stars if you like. There is plenty of room for everyone. There will be a grill, indoor restrooms and plenty of shade if you want to stay out of the sun.

Sign-up sheets forthcoming for a variety of things; more to come:

Set-up

Take down; (this is critical; we want to make sure we have enough people at the end to help stow things away properly.

Operators; operators; operators, operators. We need operators for SSB, Satellite, PSK, CW and GOTA . Whether you are experienced or not plan on operating; it's a lot of fun and there will be plenty of seasoned operators to give you whatever guidance you want.

We will be running 24 hours so if there are any night owls you are in luck

If you have a field day story, please share it. You can email Verna (KD9YUM) at vernas.kd9yum@gmail.com and she can put it in the Hamrag.

Location:

YMCA Camp Winnebago; 5804 North Main Street, Rockford, IL 61103.

Further details to come so keep an eye out on RARA Facebook page and future Hamrags. If you have questions, call or email Matt (W3MBX) 815.222.5959 or matthew.marshall@gmail.com.

Feature Article

CAN I REALLY USE THAT OLD PIECE OF COAX? By David Gauger W9CJS

COAX

In my view, coax is the worst transmission line we can use. The best would be none at all, but we all use coax because it works, it's easy and flexible to use. On the negative side, it's lossy, requires careful sealing at fittings, deteriorates with age, relatively expensive and requires specialized coax types if one needs to bury it in the lawn.

Those of us who venture into VHF and UHF recognize that very special types of coax are all but mandatory in order to minimize losses. That repeater antenna at the top of a 200 ft. tower is probably fed with Heliax or tubular air (perhaps nitrogen) dielectric coax, both of which are very expensive and both are needed to minimize huge coax losses at high frequencies.

Hams who use EME (earth moon earth) and other weak signal modes, often mount their final amplifier and receiver pre-amp at the top of the tower, right at the antenna thus eliminating the need for any coax to the antenna. Of course, coax is used to feed the transceiver to the top but having the amplifier up there eliminates the intermediate losses.

TESTING COAX

There are expensive pieces of equipment which can tell you exactly how much loss there is in a certain length of coax at a specific frequency. The ARRL handbook, for some years published a curve with which we can estimate how good or bad an old piece of coax really is. In essence, you short the far end of the coax and feed a few watts into the near end. The SWR ***should be infinite because there is a dead short at the other end*** ... but it might not be. In this case, the higher the SWR, the better the piece of coax, low SWR means lossy coax and high SWR means better coax.

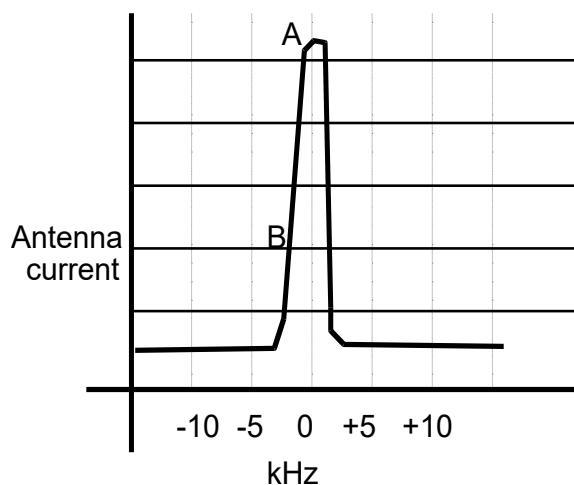
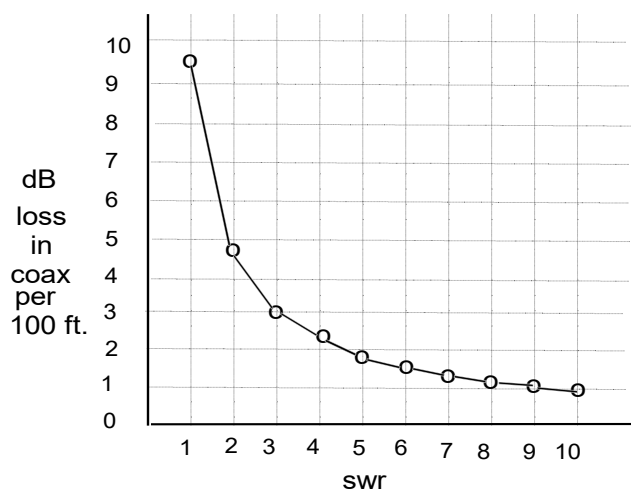
The equation looks like this. For 100 feet of cable. $DB\ loss = 10 \cdot (1/SWR)$...a fairly good approximation of the ARRL curve published in the older Antenna Handbooks. *(and shown here)* This curve shows the relationship. Keep in mind that the curve is for 100 ft of coax, and shorter pieces will show higher (better) loss.

LEAVE THE AUTO TUNER OFF

The only way to eliminate SWR is by climbing the tower and adjusting the length of the wire to resonance. But of course, we don't stay on one frequency, we hunt around. So naturally we have to live with some SWR as we tune off the optimum resonant frequency.

Feature Article

The curve below (*for illustration only*), field strength versus frequency is typical of a high Q antenna like a MAGLOOP. Obviously, if the antenna is tuned right on your operating frequency, like at point A, the field strength is maximum but if the tuning is slightly off maximum, like at point B the antenna current and thus the field strength drop significantly and the SWR rises just as dramatically.



If the SWR is not minimum **try not use your tuner** to reduce the SWR. Every antenna tuner introduces some loss. It's better to live with a bit of SWR than adding the tuner and it's loss, just to bring the SWR down. The curve represents radiated power. Tune the antenna(*not the tuner*) for minimum SWR, or better, for maximum field strength or you risk a serious drop in radiated power. Think about it... field strength is the result of antenna CURRENT. If the current drops then antenna field strength and the radiated field strength also drop. By using a tuner you mask the fact that the ill-tuned antenna is radiating less RF power.

Proof positive that "Life is compromises"...heh

David Gauger W9CJS

Feature Article

Field Day Fun by Larry Schubert AC9GO

Every year at this time I start thinking about Field Day. Whether you are a ham, working on your license, or just wondering what this all this hoopla is all about. Get in on the fun! Just go to the Field Day site in your area and tell whoever you meet that you're there to see what is going on. My XYL did just that last year, and even though I had tried to get her interested in amateur radio over the thirty years, it took her stopping in at a field day site while visiting her sister in the Sierra Nevada's near Yosemite. One of the hams, who happened to be a YL, from the local club put Verna on the air on their GOTA (Get On The Air) station and a couple of months after, she had a Tech license, and this past December she got her General class license. By the way she loves her call, KD9YUM, and it is perfect for her as she is an excellent cook and is often heard saying, this is so "yum"!

Speaking of "yum", almost every Field Day I've ever been to has had good food to go along with good conversation, and fellowship. Half the fun of a Field Day event is getting together with other hams. A lot of times you'll get to meet some of the same people that you have talked to over the air. It's kind of fun to see if they look like you have pictured them on the air, and sometimes you'll have fun just talking about some of the things that you have in common.

Field Day is designed to give all hams the opportunity to practice running their equipment on portable power for a 24-hour period. It does have a contest component to it that gives points for contacts with other stations. The information exchanged in the contact includes the calls of each station, signal reports and state or section. Each station also gives a letter and number that tells you what their number of stations and if they are portable or hooked to a power line or a home station. Some of the bigger states have more than one section, talk is kept to a minimum, and the information is exchanged.

Stations can earn extra points for several things you might actually be called on to use if it were a true emergency along with points for things like getting a local mayor to declare a special day for Amateurs. Make a copy of the latest bulletin from the ARRL. Make contacts using a satellite, or the space station. Make contacts using digital communication. Points for a GOTA station. And points for general contacts around the country and Canada. You can also get points for getting an elected official to come to Field Day.

I did mention that we have fun. My first Field Day was in Fort Wayne, IN. About five of us teenagers took the all night shift. We had the latest equipment, and lots of time to play radio all night long. What fun! We didn't make a lot of contacts, but we did have fun. Most of the bands were closed at night, but it didn't stop us from trying.

Feature Articles

Then there was the time I helped ready a group by checking out antennas the day before. I remember help putting a beam together so it could be deployed the next day. At the time I was working at the local radio station, and it gave me a chance to meet some of the area hams.

Over the years I've visited or worked with Hams in Indiana, Michigan, Illinois, and Wisconsin, and always had a good time. I'll never forget the night I told my wife that I was going to be late, but didn't know how late. As it turned out my friend John was a principal at a school in the Coldwater, MI area. His PTO had paid for a station at his elementary school and we decided to use the station for Field day. The station had a nice beam up about forty feet, and we were making contacts all night long. Early in the morning we made a contact in Scotland, and remember being so excited because it was the first time I had talked to a station overseas. Shortly after that on Sunday morning we decided we should head for home. We locked up the station and the school and were met in the parking lot by a sheriff's deputy. He said "Are either of you Larry Schubert?" I admitted that was me. He said "You better call your wife, she's worried about you." The perfect end to a fun Field Day event, lesson learned. Start making memories this year with the adventures of amateur radio. Oh, and if you are married, don't do what I did with my first wife. Let her know you may not be home before morning. 73 AC9GO Larry

Field Days—2009 and 2015



Just for Fun.....or Frustration!

Antenna Crossword



Just for Fun.....or Frustration!

ACROSS

- 3 Polarization that is not linear but is right-handed
- 4 Famous antenna from the 1920s
- 6 Ratio of voltage to current at an antenna's terminals
- 8 Not the near field, but the (blank) field
- 9 This antenna is a thin wire
- 11 The angular range over which a main lobe exists
- 13 A range of frequencies
- 18 A measure of the directionality of an antenna
- 19 The complex coefficients that multiply the signals in an antenna array
- 21 This type of dipole has an impedance four times that of a half-wave dipole
- 22 Antenna type resembling a cork screw
- 23 HPs 8510 is this type of device, used for impedance measurements
- 25 Effective (blank) measures power captured from a plane wave

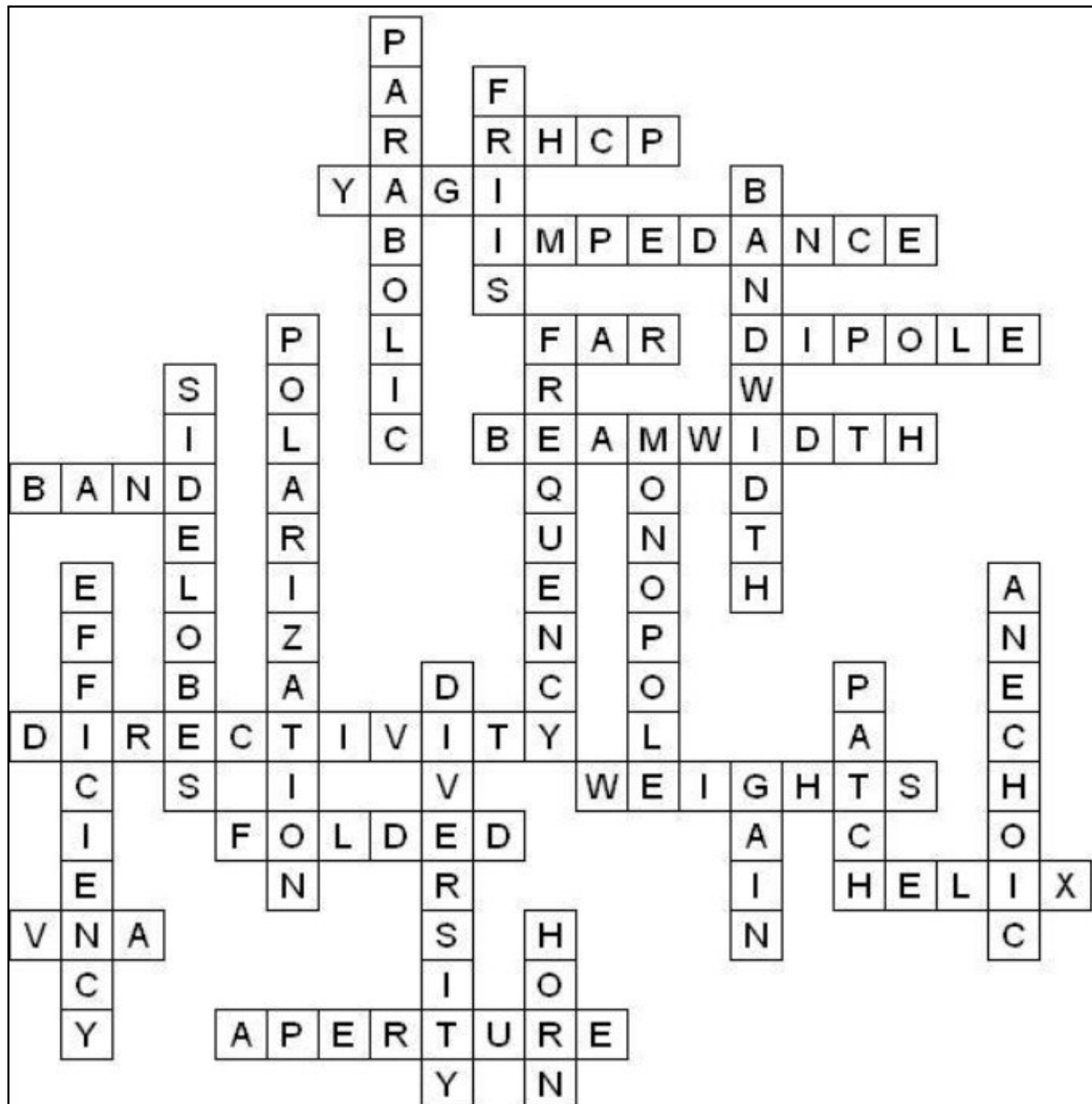
DOWN

- 1 Type of reflector that dish antennas most often take the shape of
- 2 Famous transmission equation
- 5 The frequency range over which an antenna operates
- 7 The rotation or oscillation of the e-field in a propagating wave
- 8 This tells you the speed of oscillation of the e-field of an electromagnetic wave.
- 10 Undesirable directions of radiation away from the main beam
- 12 Type of dipole used over a ground plane
- 14 Measures power lost in an antenna
- 15 This type of chamber is used for indoor antenna measurements
- 16 Using multiple antennas to receive the strongest signal is an example of (blank) reception
- 17 Type of antenna used on circuit boards
- 20 Efficiency times directivity
- 24 This type of antenna is used as a standard gain antenna and is classified as an aperture antenna

SOLUTION

Every answer in this puzzle can be found on some page within this [antenna theory website](#) or on page 12 of the Hamrag!

Just for Fun.....or Frustration!



Upcoming Testing

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

More information available at ARRL.org

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

- **05/11/2024 | Janesville WI 53545-3024**
Sponsor: Wisconsin Area VEs (WAVE)
Location: Saint John Lutheran Church
Time: 1:00 PM (Walk-ins allowed) [Learn More](#)
- **05/11/2024 | McHenry IL 60050-4422**
Sponsor: NW IL S WI Amrron
Location: McHenry Masonic Lodge
Time: 10:00 AM (Walk-ins allowed) [Learn More](#)
- **05/13/2024 | Libertyville IL 60048-1308**
Sponsor: Lake County RACES/ARES
Location: Lake County EOC
Time: 7:00 PM (**No Walk-ins** allowed) [Learn More](#)
- **05/14/2024 | Woodstock IL 60098-2953**
Sponsor: McHenry County Wireless Assoc
Location: Free Methodist Church
Time: 7:00 PM (**No Walk-ins** allowed) [Learn More](#)
- **05/25/2024 | Delavan WI 53115-1932**
Sponsor: The Lakes Area ARC
Location: Community Center
Time: 1:00 PM (**No Walk-ins** allowed) [Learn More](#)
- **05/25/2024 | Milwaukee WI 53223-4736**
Sponsor: MRAC VEC, INC
Location: Ham Radio Outlet
Time: 9:30 AM (Walk-ins allowed) [Learn More](#)
- **06/01/2024 | Freeport IL 61032-4116**
Sponsor: Stateline Amateur Radio Club
Location: Freeport Public Library
Time: 12:30 PM (Walk-ins allowed) [Learn More](#)

STARVED ROCK RADIO CLUB™

AMERICAN RADIO RELAY LEAGUE SANCTIONED HAMFEST 2024



HAM RADIO, RC MODELS,
COMPUTER & ALL HOBBIES
FLEA MARKET 6AM-1PM

AMATEUR RADIO HOBBYIST &
COLLECTORS SHOW



SUNDAY, JUNE 2nd 2024
Indoor 8:00am to 1:00pm

MENDOTA TRI-COUNTY FAIRGROUNDS
503 1st Ave, Mendota, IL 61342

ARRL VE TESTING 9:30am to 11:00am

GRAND PRIZE CASH DRAWINGS \$50-\$75-\$100 at 12:00noon

TICKETS \$8.00 ADVANCED (2 Stubs) or \$10.00 AT GATE (2 Stubs)
ALL ADVANCED ORDERS MUST BE RECEIVED BY MAY 20th 2024
GRAND PRIZE WINNERS NEED NOT BE PRESENT TO WIN.

- ✓ LARGE INDOOR EXHIBIT BUILDINGS - Indoor Setup: Sat 12noon to 6pm & Sun 6am to 8am
- ✓ TABLES \$10.00 ADVANCED OR AT THE GATE WITH FREE ELECTRICITY
- ✓ FREE OUTDOOR FLEA MARKET-TAILGATING AREA 6AM to 1PM
- ✓ ONSITE CAMPING-ELECTRICITY AVAILABLE – FEE BY FAIR BOARD
- ✓ HOURLY DOOR PRIZE DRAWINGS

FOR ADVANCED TICKET AND TABLE SALES OR GENERAL INQUIRIES: SEND A SASE TO
SRRCTM C/O Hamfest Chairman, PO Box 198, Leonore, IL 61332-0198

E-mail: starvedrockhamfest@gmail.com or see our internet site for latest info www.w9mks.org

I39 to Exit 72 US Rte 34, West to 1st Ave, South(Left) to Fairgrounds on Left.

GPS: N41.545580deg W089.108484deg (N41deg 32.735min (44.08sec) W089deg 6.509min (30.54sec))

TALK-IN by SRRCTM Repeater - W9MKS 147.120 +103.5PL

BREAKFAST and LUNCH ON-SITE BY CATERER

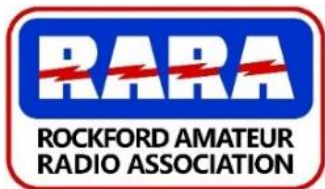
To keep Ticket prices down, DO NOT dispose of unwanted equipment on the fairgrounds.
If it doesn't sell or you can't give it away- Take it Home!

MAIL WITH PAYMENT & SASE ENCLOSED TO:

SRRCTM C/O Hamfest Chairman
PO Box 198
Leonore, IL 61332-0198

Make checks payable to SRRCTM

Name: _____	QTY	ITEM	EACH	EXTENDED
Address: _____	_____	Advance Tickets	\$ 8.00	\$ _____
City: _____ State: _____ ZIP: _____	_____	Indoor Tables	\$10.00	\$ _____
Phone: _____		Total		\$ _____



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. 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 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.

Rev. 3/10/2024