



ARCOVER

APRIL 2024



The Official Newsletter of the Fox River Radio League
100 Years of continuous service to our communities

1924  2024

Who We Are

President:

Kermit Carlson W9XA

Vice President:

Dan Nolan WA9FRY

Secretary:

Art Shuter NN9I

Treasurer:

Dan Harmon WA9YKK

Director :1

Will Sperling W9WSS

Director: 2

Pat Brod K9ANL

Director 3

Paul Mitchell KC9SEB

Director 4

John Greusel KC9OJV

Past President:

Terry Todd W9AUU

Programs:

Paul Mitchell KC9SEB

Education / VE:

Dan Nolan WA9FRY

License Trustee (W9CEQ):

Kermit Carlson, W9XA

License Trustee (W9NE):

Denny Barfuss W9HI

Newsletter Editor / PR:

Jerry Chapman N9JLC

Webmaster:

Mark Van Daele K9MEV

Membership Database:

Curt Sauer, W9YNP

Net Coordinator:

Curt Sauer, W9YNP

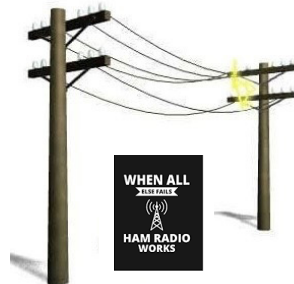
About Us

The Fox River Radio League, Inc. is a general interest Amateur Radio club serving the central Fox River Valley area in Illinois. Club records indicate the club has been in existence since at least 1924, and it has functioned continuously ever since. We are an ARRL Special Service Club, an Illinois not-for-profit corporation, and a 501(c)(3) tax exempt organization as specified in Federal IRS Statutes.

We sponsor training classes for those seeking a new or upgraded Amateur Radio license, license examination sessions, and participation in various local Public Service events. Our membership covers a broad variety of interests - if you have a specialized amateur radio interest, you will likely find camaraderie with one or more of our club members.

We meet on the 2nd Tuesday of every month at Bethany Lutheran Church, located at 8 S. Lincoln St. in Batavia, Ill. The meeting begins at 7:30 PM and includes a short business portion, social time and a program presentation of interest.

Meetings are open to the public. Anyone interested in the amateur radio hobby are invited to attend. Family members are welcome.



Fox River Radio League

Mailing Address:
P. O Box 673
Batavia, IL 60510-0673
Email: info@frrl.org
Website: <http://www.frrl.org>





From
the desk
of....

FRRL President

Kermit Carlson



Greetings and Welcome to Spring !

I would like to offer a special WELCOME to all of our guests, new members and visitors who visited the FRRL March meeting. This month, when you arrive at the April Monthly Meeting please take a look around the room and visit with someone you haven't yet met. It might be a good chance that person is a visitor who stopped in to learn about Amateur Radio, and the FRRL.

Patrick K9ANL and Danny KD9WDW are working hard on the preparations for Field Day 2024. This is a large team effort that needs everyone in the club. Give Patrick and Danny a call if you have any time available to help with the organizational efforts. Please make sure to mark your Calendar for weekend of June 22 & 23 as FIELD DAY 2024! Setup begins 1PM on Friday June 21st.

Denny Barfuss and the Education Committee is putting together a Technician Class, which will be held on Zoom - so everyone can attend, Stay TUNED for the announcement of when the start of classes.

Some good news from the Repeater Committee;
The intermittent noise problem on the 147.21 repeater has been solved, The 223.68 MHz W9CEQ repeater is on from a temporary location and has portable, Handi-Talkie (HT) coverage from far away as Plainfield, Plano, Wheaton and Elgin, and the W9CEQ Fusion Repeater on 147.225 MHz now has the WiresX Network up and running.



There are TWO new local FRRL nets to check into;

There is a NEW Monday evening SSB net on 10 meters Monday night at 7:30 on 28.420MHz,

Mike K9FE is the Net Control Station (NCS), and there is a NEW informal Net on the 223.86 MHz repeater Wednesday nights at 7:30, Curt W9YNP is the NCS.

And as always, the regular 10-10 CW net on 28.150 MHz Monday night at 8:00 PM, and 10-10 Phone net on 28.7\20 MHz Monday night at 8:30 PM. As a note, the 10-10 SSB net has just held it's 2,472th Consecutive Monday night net. YES, that is over forty-seven and a half years without missing a Monday night, Congratulations to Joe NA9A and Dean KC9EOQ for their long-term commitment to Ten Meter Activity and the 10-10 City of Lights NET !

The 100th Anniversary of the Fox River Radio League is fast approaching. Please respond to the Survey Monkey poll and let the Anniversary Committee know if you will attend the Banquet celebrating the 100th year of our club, to be held on Tuesday, September 10th.

Tobi Davis K9TCD is collecting orders for the Special Anniversary Logo-wear shirts. Please place your order with Tobi at the April Meeting. We need as many people as possible to order so that we can all obtain the bulk discount. Tobi will have samples

Lastly, the first HAM on-air efforts of the radio mode called Spread-Spectrum is starting in the Fox Valley on the UHF bands. Look for some more discussions about this mode in the months ahead !

See you on the AIR !

GUD DX de 73 Kermit W9XA





ARC OVER

FOX RIVER RADIO LEAGUE MEMBERSHIP MEETING MINUTES March 12, 2024

Minutes of the Regular Meeting of the General Membership of the Fox River Radio League (FRRL) an Illinois not-for-profit Corporation

The March 12, 2024 meeting of the Fox River Radio League was conducted at Bethany Lutheran Church in Batavia, IL. There were 49 members in attendance and 4 on Zoom.

The meeting was called to order at 1930 CST by the president Kermit Carlson W9XA.

Board Members and Directors Present

President: Kermit Carlson W9XA
Vice-President: Dan Nolan WA9FRY
Secretary, Art Shuter NN9I
Treasurer, Dan Harmon WA9YKK
Director 1, Will Sperling W9WSS
Director 2, Pat Brod K9ANL
Director 3, Paul Mitchell KC9SEB (Absent)
Director 4, John Greusel KC9OJV
Past President, Terry Todd W9AUV

Minutes: Acceptance of the January 2024 membership meeting minutes with one correction as printed in the ArcOver were approved by the membership. Motion moved by Dean KC9EOQ and 2nd by Terry W9AUV.

Treasurer's Report: Dan WA9YKK the bank account balances as of 2/13/24:

Reports:

100th Anniversary Eve W9EVE: Greg N9CHA reported that there will be a video trailer in April and more videos on the FRRL website after the September meeting. Eve expressed thanks to all who are working on the 100th Anniversary celebration. Tickets for the banquet will be available on the website.

Public Information officer- Jerry N9JLC – Jerry has sent postcards to all the police chiefs in Kane county inviting them to our field day activity.

Repeaters: Ruben K9ARN, Will W9WSS, Kermit W9XA: Kermit talked about the history of our repeater. The club now has six repeaters. Kurt W9YNP reported that the 223.86 repeater is now on the air. ECHOLINK is not currently working on the Elburn repeater.

Repeaters: Ruben K9ARN, Will W9WSS, Kermit W9XA: Kermit talked about the history of our repeater. The club now has six repeaters. Kurt W9YNP reported that the 223.86 repeater is now on the air. ECHOLINK is not currently working on the Elburn repeater



Education: Denny W9HI: The next class will be Technician and it will be on Zoom on Wednesday nights. All information for VE sessions is on the FRRL website.

Database Manager: Kurt W9YNP reported we have 145 members.

Technical: John KC9OJV, Mark K9MEV: Working on bandpass filters for field day.

ARRL Section Emergency Coordinator: Robert W9DSR reported that they will be conducting tests on Saturday 3/16/24. Frequencies used will be 3905 and 146.52.

Field Day: Pat K9ANL reported on field day preparations and positions still in need of volunteers.

Old Business: Ad-Hoc committee on Logo wear is active.

Ad-Hoc Committee for Surplus Equip is operating.

By-Law Change: Motion moved by Dan WA9FRY, 2nd Denny W9HI. Motion passed with no one opposed.

Proposed changes to by-laws by Dan Nolan WA9FRY.

ByLaw Change #1;

Amendment to Article 4 – Officers, Section 3.

Motion change to read as follows:

“The term of all officers shall be for one (1) year starting on February 1st and shall expire on January 31st of the following year.”

New Business: Proposed ByLaw Change #2;

Dan WA9FRY moved a motion to change Bylaw #2 with a 2nd from Dean KC9EOQ.

Amendment to Article 2 – Purpose, Section

Add: Section 3.

“The fiscal year shall begin on February 1st and conclude on January 31st”

Mike NF9E moved to table the motion with a second from Marty N9NTM. Motion passed.

Gary K9MMS announced the club will have special events stations from June 1 – June 15, 2024. The call sign used will be W9CEQ and modes available will be CW, phone and digital. Everyone is welcome to participate within the limits of their license.

Upcoming Events: Newsletter deadline March 20th

Board meeting April 2nd

April 9th Membership meeting

VE testing May 16th,

Ve testing March 21st

ARRL Rookie Roundup 4/21

DekLb Hamfest in Sandwich 5/5

Dayton Hamfest 5/16-19

June VHF Contest 6/8-6/10

Adjournment:

Motion to adjourn: Eric K9LGE, 2nd Eve W9EVE

Meeting adjourned at 20:17 CST.

Respectfully submitted,

Art Shuter – NN9I

FRRL Secretary



2024

A P R I L

FOX RIVER RADIO LEAGUE

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 	2 1900 FRRL BOD Meeting 1930 FRRL 2m Net	3	4	5	6
7 INFORMAL ALL OPR NET 1900	8 CW NET 28.150 2000  SSB NET 28.720 2030	9 1930 FRRL Membership Meeting No Net	10	11	12	13
14 INFORMAL ALL OPR NET 1900	15 CW NET 28.150 2000  SSB NET 28.720 2030	16 1930 FRRL 2m Net	17	18 INTERNATIONAL RADIO DAY	19	20 Newsletter Deadline
21 INFORMAL ALL OPR NET 1900	22 CW NET 28.150 2000  SSB NET 28.720 2030	23 1930 FRRL 2m Net	24	25	26 	27
28 INFORMAL ALL OPR NET 1900	29 CW NET 28.150 2000  SSB NET 28.720 2030	30 1930 FRRL 2m Net				
				MEMBER MEETING BETHANY LUTHERAN CHURCH 8 SOUTH LINCOLN ST. BATAVIA IL		
 WCRA 2m Net 8pm 145.31 -6 107.2	 VARA 2m Net 8pm 146.79 -6 107.2	 FRRL 2m Net 7:30pm 147.21 +6 103.5	 Kane County ARES 2m Net 6:30pm 145.47 -6 103.5	 Northern Illinois ARRL 70cm Net 7:30pm 444.875 +5MHZ, 114.8	 CW Net 28.150, Monday 8PM SSB Net 28.720, Monday 8:30PM	



ARC OVER

NEWS AND INFORMATION CENTER

Local - National - International

Repeater News

The clubs 220 repeater is finally on the air!

We recently installed the repeater at a temporary site in Batavia while the final location is being finalized. So far the coverage has been surprisingly good and we are hopeful that official site will have even better coverage. If you have a 220 radio please give the new repeater a try and let us know how you like it.

Frequency: 223.86 MHz
Offset: -1.6 MHz
PL: 110.9 Hz





FRRL 100TH ANNIVERSARY SHIRTS



As part of the FRRL's 100th anniversary the club is offering polo shirts with the special anniversary logo stitched on the shirt. We will place a large order to get extra discounts. The shirts are 100% cotton, with little to no shrinking. At this time we are ordering only **black shirts**.

Following Sizes Are Available

Medium \$44	Large \$44	X-Large \$44	2XL \$48
3XL \$50	4XL \$52	5XL \$54	6XL \$56



Sizes are generous and shirts are a little longer than typical. Tall sizes are not available

Stitched Logo and your first name & call sign are an additional **\$26.25**.

Logo only (no name or call sign) is an additional **\$18.53**.

We don't know what the discount we'll get for the shirts but it will be less than the above noted prices.

Deadline To Order Is April 8, 2024

To order EMAIL Tobi at: tobidavis@comcast.net

Please include size of shirt, first name & call sign (if you want them stitched on the shirt).

If you prefer to have the logo only (no name or call) let Tobi know,

Payment will be due when finished shirts are ready. Tobi will bring them to the club meeting.

To all FRRL members,

I'd like to announce that FRRL has begun planning 2024 Field Day and Danny and I will be scheduling regular meetings (regularity TBD).

We are looking for people to volunteer full-time or part time for 2024 Field Day. FRRL Field Day is June 22nd and 23rd held at LeRoy Oaks Forest Preserve in Saint Charles, IL. Follow up emails with location maps and times to be provided in May and June.

If you are interested in any of the positions listed below please contact me and Danny Nichols via email:

* Patrick Brod (K9ANL) – email: kb9anl@yahoo.com, Phone: 630-853-5190

* Danny Nichols (KD9WDW) – email: tdjack97@outlook.com



The following positions available are:

* **Band Captains** - CW & SSB operators. There will be seven (7) different band stations available to each have a captain to lead and organize their station. Note, only have three or four band stations of the seven available. A Band Captain is a dedicated leader to contribute most of the communications equipment and maintain their assigned station operations for the duration of Field Day (e.g., Saturday and Sunday).

* **GOTA Captain & Public Information Table** – Get On The Air (GOTA) station is where you'll meet visitors and explain Amateur Radio and Field Day with hands-on radio communications.

* **W1AW Bulletin** - Assign a CW resource to copy W1AW bulletin for extra points. Same resource for Message Handling?

* **Food Coordinator** – Oversee all full-time & part-time Field Day participants have water, pop, and snacks as well as organize main meals. FRRL has already purchased catering for main meals (e.g., Saturday dinner and Sunday breakfast). Person(s) should ensure other food (e.g., Friday night staging and Saturday lunch) or drinks have been arranged.

* **Safety Officer** – Ensure overall safety of Field Day attendees full-time, part-time, or visitors.

* **Promotions & Communicator Director** – Work with FRRL Public Relations to promote FRRL Field Day activation to the general public via active, recognized social media platforms (e.g., Facebook, Twitter, Instagram, etc.). Additionally, proactively seek out elected government officials to visit FRRL's Field Day event.

* **Educational Officer** - Provides an Amateur radio education activity for visitors. This person would also be responsible for youth participation at the GOTA station if we happen to have some visit. Last year we had a whole Boy Scout troop earn their Radio Merit Badges.

* **Event Volunteers** - Part time members to help perform miscellaneous tasks and participate at various radio stations if desired. We always need help setting up and tearing down antennas, tents, cabling, etc.

Thank you,

Patrick - K9ANL, 2024 Field Day Chairman

Danny Nichols - KD9WDW, 2024 Field Day Chairman





A NEW FRRL NET ON 220



Have you got a radio that covers the 222-225 Mhz band?
 Listened to 220 but never heard anything?
 Do you think 220 is a useless no-mans land?
 You didn't know 220 Mhz was a ham band?
 Don't have a transmitter but can receive 220 on your radio?

If you answered yes to any of the above questions, I invite you to check out the FRRL's new 220MHz net.

When? Every Wednesday at 7:30PM except for the 2nd Wednesday of the month.
 Where? 223.86 Mhz Negative offset with a PL of 110.9Hz
 Why? To encourage use of the new FRRL 220 repeater

We will have an informal net with checkins and a question of the day. The goal of the net is to encourage 220 usage along with getting to know your fellow 220 Mhz users so that we can exchange usage and coverage data to ensure that we have one of the best 220 repeaters in the area. I hope to hear you on the air Wednesday nights on 220.

220 - USE IT OR LOSE IT

Want to try running the net but not sure how?
 Just send me an email at w9ynp@arrl.net and I will get back to with details



If you have any memorabilia about the club please contact:

Chair [Eve Schneider W9EVE](#)

**PAY OR RENEW
 MEMBERSHIP DUES
 OR
 REPEATER DONATION
 ON LINE HERE**

Membership rates are as follows:

- REG: Regular dues are \$30.00 per year,
- FAM: Family dues are \$40.00 per year (family members at the same address)
- SRC: Senior Citizen dues (65 and older) are \$25.00 per year,
- STU: Student (Full time, under 22) dues are \$25.00 per year.
- MIL: Active Military dues are \$25.00 per year.

You can also help support the FRRL Repeaters by making a \$10.00 (or more!) annual contribution.





Fox River Radio League 100th Anniversary Special Radio Operation Event



Using club call W9CEQ The Fox River Radio League is celebrating its 100-year anniversary in 2024. As part of the celebration, the club call sign W9CEQ will be heavily activated for a two-week period.

Time Period: June 1 (0001 UTC) through June 15 (2359 UTC), 2024

Modes: CW, Phone, Digital

Frequency Bands: HF, 1.8 to 29.7 MHz ; VHF: 50-54 MHz

The announcement of this operation as shown on the ARRL Special Events website lists: 7.035, 14.035, 7.260, and 14.260 MHz as suggested starting frequencies.

The FRRL club call W9CEQ will be used by many members of the club while operating from their home stations. The above-listed frequencies are just reference starting points. The club members operating using W9CEQ will be encouraged to use a wide variety of frequency bands and multiple modes. The range of frequencies was chosen with the hope of encouraging amateur radio operators with various classes of licenses to participate and work W9CEQ.

To locate W9CEQ on the air, check some of the commonly-used DX cluster spotting websites. W9CEQ operators are encouraged to self-spot their radio operations to assist other stations seeking to contact the club call. To help with the overall activity, if you find and work this station, please also consider spotting them on one or more of the commonly-used "clusters." When posting, use a format such as W9CEQ FRRL 100 YRS

Contacting W9CEQ multiple times is encouraged – using different bands and/or modes. Please keep a log of all your contacts with the club call. Special, commemorative QSL cards and certificates will be made available for everyone contacting W9CEQ during June 1-15.

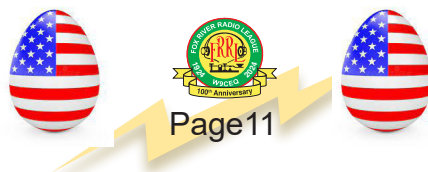
QSL / Certificate Request Procedures:

For all requests, Include a copy of your log data for all of your QSO/s with W9CEQ.
(Name, address, call sign, date, time (UTC, please), band / frequency, mode, and signal report)

QSL: (Everyone) Send SASE to W9CEQ FRRL, P.O. Box 673, Batavia, IL 60510

CERTIFICATE:

- (A) For FRRL members contacting W9CEQ:
Submit your request to W9CEQ FRRL, P.O.Box 673, Batavia, IL 60510.
Hopefully, you can take delivery of your certificate at a regular FRRL club meeting.
If you prefer to have your certificate mailed, please include an SASE with your request.
For a non-folded certificate, include a 9x12 inch SASE.
For a folded certificate, include a number 10 business-sized SASE.
- (B) For non FRRL members contacting W9CEQ:
Submit your request to W9CEQ FRRL, P.O.Box 673, Batavia, IL 60510.
Include \$5 to cover the cost of materials and postage.



FRRL Members who would like to operate as W9CEQ during the special event:

Please contact K9MMS, Gary Hornbuckle, via K9MMS@arrl.net and provide the following information:

1. Your call sign and first and last name.
2. Your estimated level of participation:
Number of days of operation and goal for quantity of QSOs to make
Your preferred frequency bands and modes of operation for the event
3. The method of logging that you plan to use. Computer logging is preferred.
A logging program that can export a Cabrillo or ADIF log file is preferred.
If you are not set up for, or familiar with, computer logging, you can use paper logging.
I would like for any manually-generated paper logs to be limited to less than 50 QSOs.
If you plan to use paper logging, I have prepared log forms that you can request via email.
All times of logged QSOs must be in UTC.

PLEASE NOTE:

FRRL members should not operate on 6 meters as W9CEQ during the ARRL June VHF contest that is scheduled to take place from 1800 June 8 Saturday to 0259 June 10 Monday.

Again, all requests to serve as a W9CEQ Special Event operator should be submitted to K9MMS, Gary Hornbuckle, via email using K9MMS@arrl.net All such requests will receive a reply which includes detailed written instructions for W9CEQ Centennial event operators. If a manual logging form is requested, it will be included in the reply.

It is planned to have an operator, sign-up, calendar facility made available on the FRRL website in the next few weeks. That would enable W9CEQ operator volunteers to select and reserve date/time slots, which could be publicly viewable.

All W9CEQ Special Event operators should submit their logs to K9MMS via email no later than June 30, 2024. This will greatly help with the collection, organization, and review of log data and with the preparation of 100th Anniversary QSLs and certificates.

W9CEQ special event operators who operate from their home stations, using the club call sign, and make over 100 QSOs may possibly receive a special award in addition to a commemorative FRRL centennial certificate. The possible implementation of this is currently under consideration.

Summary notices of this event are to be posted on the FRRL website as well as the W9CEQ page on QRZ.com call sign database.

All licensed amateur radio operators who make one or more QSOs with W9CEQ during June 1-15 will be eligible to receive a commemorative FRRL Centennial certificate. Obviously, this includes FRRL members as well as any non-club members. The plan is to have two versions of certificates: (1) Anyone contacting W9CEQ, and (2) FRRL members who use their station to operate as W9CEQ.

After the W9CEQ operators logs have been submitted and reviewed, and after a significant number of requests for QSL cards and/or certificates have been received, there may be a call

for FRRL members to volunteer and assist with the processing of QSLs and certificates and to prepare them for mailing.

For questions or more Information, contact K9MMS Gary Hornbuckle via K9MMS@arrl.net

73,
Gary . K9MMS



“QSY to Wichita”

Eric K9LGE and Marilyn KC9KJV Head West

By: The FRRL 100th Anniversary Committee



Eric Lorenz K9LGE and his wife Marilyn KC9KJV are leaving the area for new opportunities in Wichita, KS. A valued member of the 100th Anniversary Committee, Eric has been scanning club historical archives while trying to get his household packed up for the move west. Quite a task!

The first introduction to amateur radio for Eric was before and during his school days in the 1970's. A CB radio was purchased by his father as well as an antenna from Radio Shack and installed (unfortunately) on the same mast as the family TV antenna. "I think my "handle" back then was "The Blue Streak," remembers Eric. "Lots of shouts from the living room downstairs, GET OFF THE RADIO!" during times when his hobby overlapped the evenings entertainment.

After a full dose of CB vs TV, Eric was introduced to a friend of his father, John Wendt, W9HNA, who lived conveniently down the street from the Lorenz household in Park Ridge. "John was my first "Elmer," says Eric. "He had a split-level, and down in the sub-basement was where his hamshack was. He (John) was an engineer for a lot of years at SOLA Electric."

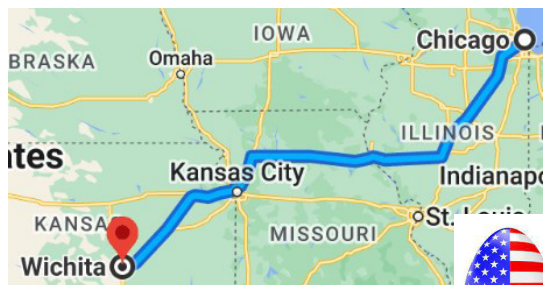
Still a young man, and still before his high school years, Eric continued his excitement of talking "3rd party" using amateur radio. "We really did not do anything on HF, it was mainly just going out to his (John's) car and talking on two-meters," remembers Eric. "He would get someone on the air then hand me the microphone and let me talk to them."

The interest in amateur radio was reignited in the early 2000's when Eric met Woddy Olson, KB9JHN. "He was a part of our church and he did a number of things... he was part of the ARES, Amateur Radio Emergency Service for Kane County," Eric recalls. "I really became in contact with Woddy because of the storm-spotting angle." Olson was also serving the American Diabetes Association as the Communications Chair for their Tour de Cure bike event.

Now fully hooked on what can be accomplished using amateur radio in the public service arena, Eric decided it was time to get his ham radio license. "I wrote my first test through the Fox River Radio League," says Eric. "I don't remember the month, but it would have been in 2004 when I wrote my Technician ticket. That was exciting!"

Eric received his first license in March of 2004, with KC9FQV boldly printed on the license mailed to him from the FCC. "Back then you didn't know what you were going to get," he said. "I was like, ok, it's ugly, but it works!" With a borrowed HT in hand from his mentor Woody, Eric tried out his new license and was forever hooked on ham radio.

Not long after getting his license, Eric joined the FRRL in 2004. "It was when we were



still at the Prisco Center, in the basement,” Eric said. “One of the original people who signed off on it (VE test) was Maurice Schietecatte, W9CEO.” (now N4LZ) A few years later, Eric upgraded from Tech to General (2010).

“Throughout those beginning years, there were a number of club members who were very helpful in getting me going and getting me excited.” Eric continued, “The first thing I remember was building a copper J-Pole, a dual-band J-Pole, which the club members came out and graciously helped me install on our house in South Elgin.”

“People (in the club) were truly interested in wanting you to succeed!” said Eric. “And here they were, people donating of their time, not expecting anything in return, just to see me on the air.”

Eric’s commitment to public service would serve the community as he spent seven years with the Kane County ARES group, three of which he was the Emergency Coordinator. For ten years he volunteered with the American Diabetes Association assisting and later organizing communications for their Tour de Cure bike event: an awareness and fundraising event held annually.

Eric’s wife Marilyn and daughter Sarah were encouraged by Eric to join “The Next Gen Hams” a group organized specifically to introduce the kids of the FRRL to the hobby their parents enjoyed. “Sarah got involved with that, and the idea came up to have a license class for the kids,” says Eric. “Marilyn would take Sarah to the classes on Saturday mornings.” When it came time to take the test, Sarah and her mother, now encouraged by the VE staff, to give it a shot. While Sarah did not pass, Marilyn did and got her first ham ticket, KC9KJV.

“There are so many parts to the FRRL,” Eric exclaimed. “I’m seeing all of these younger people coming on. I think they’re going to take the club into the next period of time. It’s going to look different from when we were first involved.” Eric left us with this comment, “As we (FRRL) make that transition to the next generation, it’s their club, and the best thing we can do is support them and help them facilitate what they’re doing in order to keep the FRRL an active, on-going entity for the next hundred years.”



Eric K9LGE with Evelyn W9EVE at the March 2024 membership meeting



Participants included: Tobi Davis, K9TCD (formerly KC9GDL); Tom Davis, WB9CHY; John Spasojevich, AG9D; Dean Holste, KC9EQQ; Brenden Holste and his brother Colin, KC9KJW; Dick Illman, AH6EZ; Pat N9TBD daughter Michelle and son Tony; Eric K9LGE (formerly KC9FQV and his wife Marilyn KC9KJV brought their daughter Sara

220 Mhz - New Repeater - Some History

The FRRL has recently installed our new 220MHZ (223.86Mhz -1.6 110.9Hz PL) repeater at a temporary site in Batvaia. It has a brand new antenna and is working beyond expectations. We are feverously working on the permanent home for this repeater and hope to have details soon. In Light of this I thought the membership would benefit from some 220 specific information. 220 is the my favorite band and I hope that you will entertain the idea of adding 220MHz to your ham radio arsenal.

73, Curt W9YNP

The Advantages of a 220Mhz repeater

The limited access to commercial equipment does not always mean bad news. The 220MHz repeaters have some distinct advantages over those designed to operate for 2m/70cm pair:

Worth the customization effort - a few manufacturers who have made the 220 MHz repeaters have discovered that it's an excellent, low-interference band. That totally makes it worth the effort to even customize equipment.

The 220Mhz band delivers the best propagation among the "big three bands" (70cm, 1.25m or 2m) Increase in recent traffic and commercial interest - Like the 2m band, ever increasing footprint of licensed hams, converted gear from Motorola, MICOR High Band and traffic is convincing manufacturers to pitch in for 220MHz rigs. The repeater market in this domain is on the cusp of bigger commercial investments, like the new BCR-220 repeater from BridgeCom Systems and the New Kenwood 220 D-STAR handheld, and a new 220 D-STAR Dual mode repeater from BridgeCom.

Change in 220MHz perception - With the 'lack of commercial gear' myth being busted for the 220 band - attractive prices for equipment is a reality. The repeaters out there today can adapt from weak-signal work to FM. Serious VHF contesters are making a move to leverage 220 using SSB and CW, for the extra multipliers.

Increased traction of Amateur radio and ham clubs towards the 220 band naturally creates the demand for technology refinement in 220 MHz repeater space.

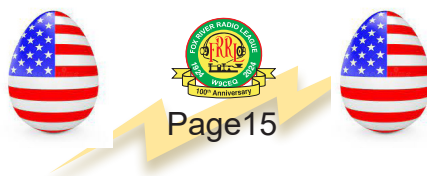
The U.S. Navy also uses spectrum at 216MHz–217MHz. The U.S. Naval Space Command uses its space surveillance (SPASUR) system to track earth-orbiting satellites and to monitor over-the-horizon threats from sea and air forces. SPASUR operates a surveillance network of nine field stations across the southern United States. These surveillance stations produce a “fence” of electromagnetic energy that can detect objects to an effective range of 15,000 nautical miles. The fence transmits a narrow beam of RF directly skywards from a two-mile-long, ground-mounted antenna array.

A History of the 220Mhz Band

In 1938, the FCC gave U.S. amateurs privileges in two VHF bands: 2.5 meters (112 MHz) and 1.25 meters (224 MHz). Both bands (as well as 70 centimeters) were natural harmonics of the 5-meter band. Amateur privileges in the 2.5-meter band were later moved to 144–148 MHz (becoming the modern-day 2-meter band), and the old frequencies were reassigned to aircraft communication during World War II. At that time, the 1.25-meter band expanded to a 5 MHz bandwidth, spanning 220–225 MHz.

In 1973, the FCC considered Docket Number 19759, which was a proposal to establish a Class E Citizen's band service at 224 MHz. The proposal was opposed by the ARRL and after the explosive growth of 27 MHz Citizen's Band usage, the FCC dropped consideration of the docket in 1977.

In the late 1980s, United Parcel Service (UPS) began lobbying the FCC to reallocate part of the 1.25-meter band to the Land Mobile Service. UPS had publicized plans to use the band to develop a narrow-bandwidth wireless voice and data network using a mode called ACSSB (amplitude-companded single sideband). UPS's main argument for the reallocation was that amateur use of the band was very sparse and that the public interest would be better served by reallocating part of the band to a service that would put it to good use.



In 1988, over the objections of the amateur radio community, the FCC adopted the 220 MHz Allocation Order, which reallocated 220–222 MHz to private and federal government land-mobile use while leaving 222–225 MHz exclusively for amateur use. The reallocation proceeding took so long, however, that UPS eventually pursued other means of meeting its communications needs. UPS entered into agreements with GTE, McCall, Southwestern Bell, and Pac-Tel to use cellular telephone frequencies to build a wireless data network. With the 220–222 MHz band then left unused, the FCC issued parts of the band to other private commercial interests via a lottery in hopes that it would spark development of super-narrowband technologies, which would help them gain acceptance in the marketplace. In the 1990s and into the 2000s paging companies made use of the 1.25-meter band. Most all such use ended by the mid-2000s, with the paging companies being purchased by others and services moved to newer systems, or having gone out of business.

Today, the 1.25-meter band is used by many amateurs who have an interest in the VHF spectrum.

There are pockets of widespread use across the United States, mainly in New England and western states such as California and Arizona with more sporadic activity elsewhere. The number of repeaters on the 1.25-meter band has grown over the years to approximately 1,500 nationwide as of 2004.

The attention that band received in the late 1980s and early 1990s due to the reallocation of its bottom 2 MHz sparked renewed amateur interest. Many amateurs feared that lack of 1.25-meter activity would lead to reallocation of the remaining 3 MHz to other services. Today, new handheld and mobile equipment is being produced by amateur radio manufacturers, and it is estimated that more amateurs have 1.25-meter equipment now than at any point in the past.

Auxiliary stations

An auxiliary station, most often used for repeater control or link purposes or to remotely control another station, is limited in the United States to operation on frequencies above 144.5 MHz excluding 144.0–144.5 MHz, 145.8–146.0 MHz, 219–220 MHz, 222.00–222.15 MHz, 431–433 MHz, and 435–438 MHz. Operation of such control links in the crowded 2-meter band is problematic and on many frequencies in that band expressly prohibited, leaving 1.25-meter band frequencies as the lowest available for remote control of repeaters and unattended stations.

List of transceivers

Standard Communications c228a dual-band handheld for 2 m and 220 MHz.

Since the band is allocated mostly in ITU Region 2 (Somalia, in Region 1, being the only exception thus far), the major equipment manufacturers (Kenwood, Yaesu, and Icom) do not often offer transceiver models that cover the frequency range. This exacerbates the lack of usage of the 1.25-meter band, though manufacturers argue that what equipment they have produced has not sold well compared to other products.[citation needed]

In late seventies Yaesu introduced the FT-127 single band 220 MHz base station, and the FT-109RH portable radio. In

1987 they introduced the FT-33, single band 220 MHz version of the popular FT-23 portable radio.[citation needed]

In recent years, Kenwood and Yaesu have both included the 1.25-meter band in some of their multiband handheld transceivers. The Kenwood TH-F6A and TH-D74A; the Yaesu VX-6R, VX-7R and VX-8R (United States and Canada version) include coverage of the 1.25-meter band in addition to the more popular 2-meter and 70-centimeter bands.

Wouxun now has the KG-UVD1P in a 2-meter / 1.25-meter model, legal for use in the United States. In the 1980s, ICOM offered the IC-37A—a 220 MHz, 25-watt FM transceiver that can still be obtained as used equipment from various sources such as eBay and private collectors. In 2013, the BaoFeng UV-82X, an inexpensive 2-meter / 1.25-meter handheld, became available.[citation needed] During 2021, Baofeng then introduced its latest, and cheapest, UV-5r III handheld transceiver, which now includes the 1.25 meter band as standard.

Several Chinese 1.25-meter base/mobile transceivers are available. Among these are the Alinco DR-235T,[19] the Jetstream JT220M, BTEch UV-2501-220, BTEch UV-25X4 quadband, and the TYT TH-9000 monoband radio, which comes in a 1.25-meter model.

ANYTONE also makes various models.

The Chinese company Wouxun offers a 2 m and 1.25 m dual-band HT, the KG-UVD1P.[21] These have received FCC approval in the United States; but are awaiting approval by Industry Canada.

Elecraft offers an all-mode (CW, FM, SSB) transverter for the band[22] compatible with its K2 and K3 transceivers.

Countries with known allocations



ITU Region 1

Somalia (220–225 MHz)

ITU Region 2

Anguilla (220–225 MHz)

Argentina (220–225 MHz)

Aruba (220–225 MHz)

Barbados (222–225 MHz)

Belize (220–225 MHz)

Bermuda (220–225 MHz)

Bolivia (220–225 MHz)

Bonaire (220–225 MHz)

Brazil (220–225 MHz)

British Virgin Islands (220–225 MHz)

Canada (222–225 MHz amateur primary exclusive; 219–220 MHz secondary and shared; 220–222 MHz, only for "disaster relief")

Cayman Islands (220–225 MHz)

Chile (220–225 MHz)

Costa Rica (222–225 MHz)

Colombia (220–225 MHz)

Cuba (222.9–224.6 MHz)

Curaçao (220–225 MHz)

Dominica (222.340–224.000 MHz)

Dominican Republic (220–225 MHz)

Ecuador (220–225 MHz)

El Salvador (220–225 MHz)

French Overseas Departments and Territories in Region 2 (220–225 MHz)

Overseas Departments:

French Guiana

Guadeloupe

Martinique

Overseas collectivities:

Saint Barthélemy

Saint Martin

Saint Pierre and Miquelon

Guyana (220–225 MHz)

Haiti (220–225 MHz)

Honduras (222–225 MHz)

Jamaica (220–225 MHz)

Mexico (222–225 MHz)

(Band is channelized in some segments,
and shared with commercial and government operations,
including police)

Montserrat (220–225 MHz)

Nicaragua (220–225 MHz)

Panama (220–225 MHz)

Paraguay (220–225 MHz)

Peru (220–225 MHz)

Sint Maarten (220–225 MHz)

Suriname (220–225 MHz)

Trinidad and Tobago (220–225 MHz)

Turks and Caicos Islands (222–225 MHz)

United States of America

(222–225 MHz amateur primary exclusive;

219–220 MHz secondary, shared and limited

Uruguay (220–225 MHz)

Venezuela (220–225 MHz)





Every April 18, radio amateurs worldwide take to the airwaves in celebration of World Amateur Radio Day. It was on this day in 1925 that the International Amateur Radio Union was formed in Paris.

Amateur Radio experimenters were the first to discover that the short wave spectrum — far from being a wasteland — could support worldwide propagation. In the rush to use these shorter wavelengths, Amateur Radio was “in grave danger of being pushed aside,” the IARU’s history has noted. Amateur Radio pioneers met in Paris in 1925 and created the IARU to support Amateur Radio worldwide.



World Amateur Radio Day 2024



IARU is very pleased to announce the theme of: “A Century of Connections: Celebrating 100 years of Amateur Radio Innovation, Community, and Advocacy”.

IARU celebrates its centenary in 2025. Since its founding in Paris, France, IARU has worked tirelessly to promote innovation in amateur radio and to encourage the growth of the service in communities throughout the world.

IARU has represented the Amateur Services at international and regional regulatory bodies by relying on our volunteers who come from many countries and communities. IARU has been a sector member of the ITU since 1932 and the work of our volunteers has continued since that date with unmatched success, as was highlighted with the accomplishments at WRC-23.

Leading up to our centenary year, we should take time to reflect on the remarkable achievements of radio amateurs over the last 100 years. While the Amateur Services have been in operation for over a century, 1924 was the first year that intercontinental amateur communication became more or less commonplace. Since that time radio amateurs have made unparalleled advances in technology related to the Amateur Services that play a critical role today in sustaining world-wide communications and allow us to respond to global emergencies.

World Amateur Radio Day is an opportunity to reflect on our achievements since 1924. We should celebrate our diverse community and the advances and innovations we have made as we look forward to celebrating the IARU centenary next year.



We're looking for a few good people to join our Communications team which provides communications for weather emergencies, special events, search & rescue, and more.

If you are interested in HAM radio, emergency response, or technical communications, we'd love to meet you at our upcoming New Volunteer Open House on Monday, April 1st at 6:30pm. Go to <https://fb.me/e/1fl1v7o34> and tell us you're coming.

More information is available at

<http://www.kcoem.org/Pages?Volunteer-Program/Become-a-member.aspx>



Kane County
Office of Emergency Management
Communications Bureau

Join the team!

We are looking for volunteers who are interested in HAM radio, emergency response or technical communications



Learn more
APRIL 1, 2024
6:30p - 9:30p

What we do:

- weather emergencies
- special events
- search & rescue
- hazmat response
- ITECS deployment

No experience needed!
All training is provided.
Must be 21 or older.

For team qualifications & more
please visit www.KCOEM.org



53rd Annual

Madison Hamfest

Sponsored by MARA, the Madison Area Repeater Association
A Non-Profit Organization

Saturday April 13, 2024
8:00 AM until 12:00 PM

The MARA Hamfest features vendors of new and used equipment for Amateur Radio, Electronics, Computers, computer parts and software. Come see our huge Flea Market in the Mandt Community Center's spacious 26,000 sq ft main hall.

VE testing starts at 10:00 AM.

Vendor space is sold on a **"first come, first served bases"**

- Location:** Mandt Community Center (Same location since 2000)
- GPS:** North 42.91157 West 89.21647
- Address:** 400 Mandt Parkway, Stoughton, Wisconsin
- Directions:** Take US Hwy 51 South from Madison to downtown Stoughton, WI. Turn South on 4th Street and the Mandt Center is 3 blocks ahead on the left
- Talk in:** MARA's Wide Area Repeater 147.150 MHz (+600) pl 123.0
- Parking:** Free
- Seller Setup:** Friday night 6:00 PM to 8:00 PM and Saturday morning, 6:00 AM

Ticket, Table and Chair Prices

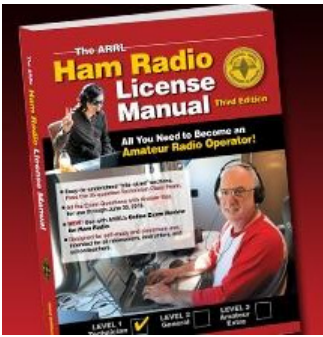
Tables are limited to availability!

Hamfest general admission tickets:	Purchased on website	\$8.00 per person
<u>Ages 12 and younger: FREE</u>	At the door CASH ONLY!	\$10.00 per person
Eight-foot vendor table fees	Purchased by March 25	\$20.00
Admission tickets are NOT included	After March 25	\$25.00
In the price of tables		
Chairs		\$5.00
AC Service		\$30.00
Admission ticket along with table rental is Required		At the door is CASH ONLY

MARA is not responsible for theft or damage. All orders are final – No refunds.

Hamfest tickets, and vendor table space can be purchased at the MARA website: www.w9hsy.org If you have questions about purchasing tickets, chairs, table space. Please check the web page or contact us by e-mail at hamfest@w9hsy.org



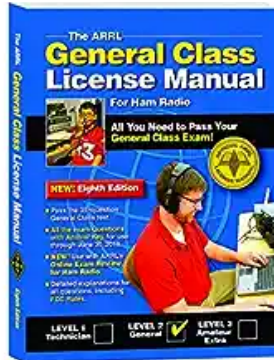


Technician Class
Wednesday Evenings
6:30 P.M. to 9:30 P.M.

Start: TBD
End:



Tech & General classes are done on **Zoom**. The Meeting Link to be distributed prior to the class.



General Class
Thursday Evenings
6:30 P.M. to 9:30 P.M.

Start: TBD
End:

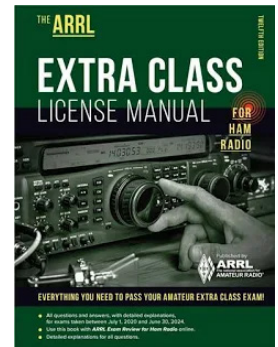
EXTRA classes are held in person at:



Extra Class

Saturday Mornings
9:00.AM. to 12:30 P.M.

Start: TBD
End:



The Fox River Radio League (FRRL) presents regular training classes focused toward new Amateurs interested in gaining their Technician class license or upgrading to the General and Extra class licenses.

These are free courses where you will learn everything you need to receive or upgrade to the appropriate FCC radio license.

The textbook for the class will be the official ARRL License Manual. Books are available for purchase via the club at a discounted rate by emailing [education \[at\] frrl.org](mailto:education[at]frrl.org).

Classes are instructor-led, and you can expect engaging conversations to ensue around the topics of discussion.

In addition to our regularly scheduled bi-monthly testing we will be scheduling a dedicated VE session after discussing best availability with the class participants. For more information on VE sessions, please see [VE Test Sessions](#).

We are in need of
Instructors

If you are willing to teach a section or two contact education@frrl.org

Please Note that Tech & General classes are 9 weeks long..

Extra classes are 12 weeks long.
 You can contact Dennis Barfuss at:
W9HI@arrl.net

if you have any questions

Students should read the material in advance of the class. Also bring an inexpensive calculator like a TI-30 x and a notebook and pencil or pen.



VE Testing

The FRRL, in conjunction with the ARRL VEC, sponsors regular amateur examinations the third Thursday of every March, April, May and June. Ad-hoc sessions are planned during major events and will be added to the schedule here as well.

Upcoming Testing Schedule:

March 21, 2024
May 16, 2024
July 18, 2024

Testing Location:
Geneva Lutheran Church
301 S 3rd St,
Geneva, IL 60134



Please also be sure to bring:

- Photo identification
- Your FCC generated FCC Registration Number (FRN).
- The fee of \$15.00. (The FRRL receives no portion of this fee.)



- If upgrading bring your original FCC HAM Radio License (or the documentation you received) and a photocopy of your license.

If you have questions about the testing program, please email the Chairman at: ve@frrl.org

Illinois Traffic Net



You can also participate in one (or all) of the Illinois Traffic Nets. Everyone is welcome with or without traffic. The nets are the North Central Phone Net, Daily (M-F) at 7 a.m. local time, on 3912 kHz LSB; the Illinois Phone Net, Monday – Friday at 4:45 p.m. local time, on 3857 kHz LSB and on Sunday at 8 a.m. on 3940 kHz; and the Illinois Sideband Net, Daily at 6 p.m. local time, on 3905 kHz LSB.





Out N About



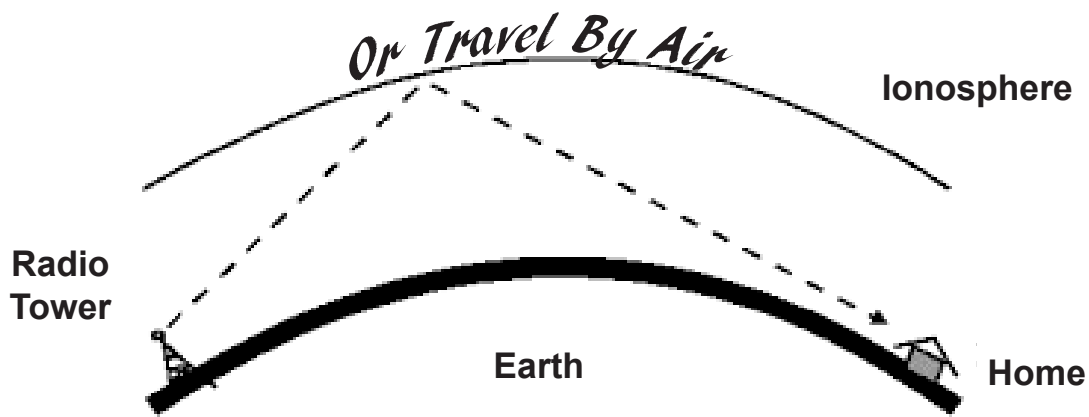
April 6 | [Raleigh Hamfest](#), hosting the ARRL Roanoke Division Convention, Raleigh, North Carolina



April 12 - 13 | [Green Country Hamfest 2024](#), hosting the ARRL Oklahoma State Convention, Claremore, Oklahoma



April 20 | [Delmarva Amateur Radio and Electronics Expo](#), hosting the ARRL Delaware State Convention, Georgetown, Delaware





Ham Fests

Illinois HAMFEST/CONVENTION

04/27/2024 - Sullivan Hamfest

Location: Sullivan, IL

Type: ARRL Hamfest

Sponsor: Moultrie Amateur Radio Klub

Website: <http://qsl.net/mark/>

Learn More



Sandwich Fairgrounds

HAMFEST/CONVENTION

05/05/2024 - The DeKalb Hamfest

Location: Sandwich, IL

Type: ARRL Hamfest

Sponsor: Kishwaukee Amateur Radio Club

Website: <http://karc-club.org>

Learn More



06/02/2024 - Starved Rock Radio Club Hamfest

Location: Mendota, IL

Type: ARRL Hamfest

Sponsor: Starved Rock Radio Club

Learn More

Three Sisters Park

HAMFEST/CONVENTION

<http://www.arrl.org/hamfests/starved-rock-radio-club-hamfest-5>



06/09/2024 - EgyptianFest

Location: Granite City , IL

Type: ARRL Hamfest

Sponsor: Egyptian Radio Club, Inc.

Website: <http://www.w9aiu.org>

Learn More



All Operators Net



“EVERY” Sunday for “EVERY” Operator

New or experienced...ALL are Welcome

1900 hrs (7pm) local time

147.21 103.5PL +600

On the FOX VHF Repeater



Feel free to share your thoughts, experiences, recipes and hobbies etc.

“It does not have to be about radio to talk on the radio!”

For more info about the NET contact:

Mike K9FE 630-327-5164 K9FE@yahoo.com



WIRES-X IS BACK



WIRES-X is up and running on the 147.225 repeater.

The bugs have been squashed and the system is working as expected.

The node name was changed from W9CEQ-ND to W9CEQ-RPT so you may lose your saved settings.

Please give it a try - we think you will be pleased.

73,

Curt



Page25

The Radio Amateur's Code

The Radio Amateur is...

CONSIDERATE... He never knowingly operates in such a way as to lessen the pleasure of others.

LOYAL... He offers loyalty, encouragement and support to other amateurs, local clubs, the IARU Radio Society in his country through which Amateur Radio in his country is represented nationally and internationally.

PROGRESSIVE... He keeps his station up to date. It is well build and efficient. His operating practice is above reproach.

FRIENDLY... He operates slowly and patiently when requested; offers friendly advice and counsel to the beginner; kind assistance, cooperation and consideration for the interests of others. These are the marks of the amateur spirit.

BALANCED... Radio is a hobby, never interfering with duties owed to family, job, school or community.

PATRIOTIC... His station and skills are always ready for service to country and community

...adapted from the original Amateur's Code, Written by Paul M Segal, W9EEA, in 1928

© John Devoldere 0N4UN and Mark Demeuleneere 0N4WW

Taken from: [Ethics and Operating Procedures for the Radio Amateur.](#)

BRING BACK "RADIO IN THE PARK"

Harry Jones K9DXA" started "Radio in the Park" years ago. His idea was take your radio out to a local park and set it up and operate. Since we can't have any thing big, just take your rig, wear your mask, set up an antenna, radio and have fun.

The idea of this is bring ham radio to the public. Make a small sign with your name, call sign, and please add FRRL also. Would like some photo of your operation. May get someone to take a picture of you operating. Will try to get your picture into the news letter. Please send a short report to me at my FRRL address. Director3@frrl.org



There are plenty of volunteer organizations that could use your radio skills.



Consider volunteering
you can make
the difference !!



American Red Cross




The Amateur Radio Emergency Service® (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment, with their local ARES leadership, for communications duty in the public service when disaster strikes. Every licensed amateur, regardless of membership in ARRL or any other local or national organization is eligible to apply for membership in ARES. Training may be required or desired to participate fully in ARES. Please inquire at the local level for specific information. Because ARES is an amateur radio program, only licensed radio amateurs are eligible for membership. The possession of emergency-powered equipment is desirable, but is not a requirement for membership.

ARES

Every licensed amateur, regardless of membership in ARRL or any other local or national organization is eligible to apply for membership in ARES.

ARES Resources

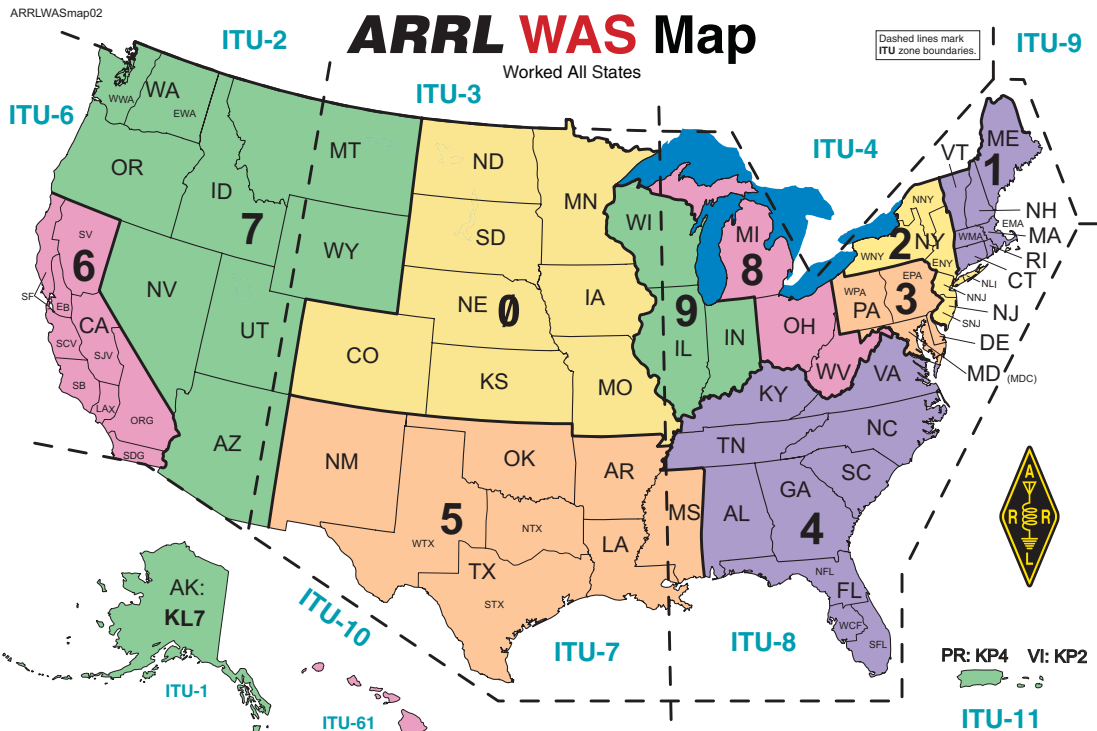
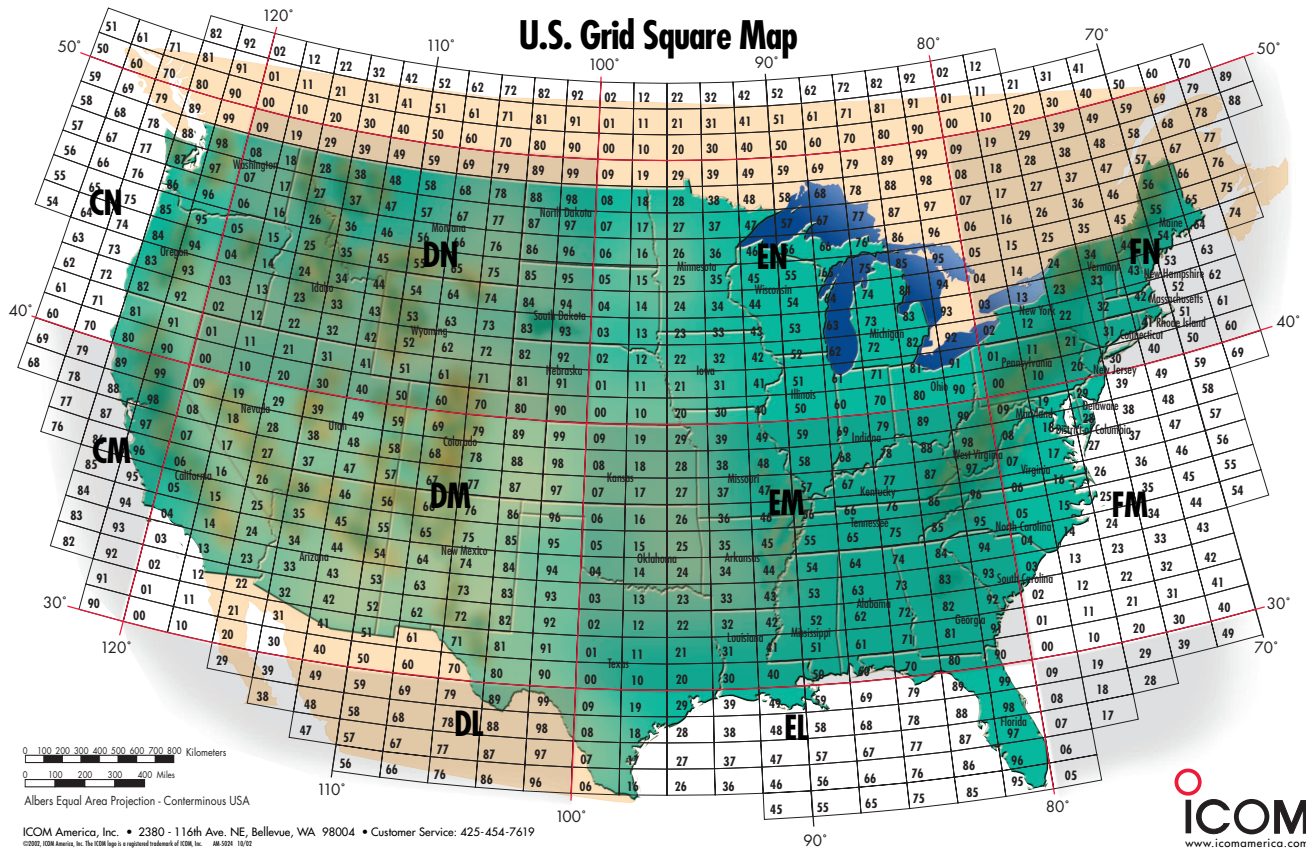
- [Download the ARES Manual \[PDF\]](#)
- [ARES Field Resources Manual \[PDF\]](#)
- [ARES Standardized Training Plan Task Book \[Fillable PDF\]](#)
- [Emergency Communications Training](#)



Kane County ARES

Information

[Click Here](#)



ARRL We're At Your Service

ARRL Headquarters 860-594-0200 (Fax 860-594-0259)
 Publication Orders Toll-Free 1-888-277-5289 (860-594-0355)
 Membership/Circulation Desk Toll-Free 1-888-277-5289 (860-594-0338)
 Getting Started in Amateur Radio Toll-Free 1-800-326-3942 (860-594-0355)
 Exams 860-594-0300
 ARRL on the World Wide Web www.arrl.org

hq@arrl.org
 orders@arrl.org
 membership@arrl.org
 newham@arrl.org
 vec@arrl.org

ARRL The national association for
AMATEUR RADIO

Copyright © 2005 by the American Radio Relay League, Inc. All Rights Reserved. rev 11-09





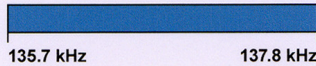
US Amateur Radio Bands

Operator license classes: **E** = Amateur Extra **A** = Advanced **G** = General **T** = Technician **N** = Novice
 CW operation is permitted throughout all amateur bands. Except as noted, all frequencies are in megahertz (MHz).

■ = RTTY, data, phone, image
 ■ = USB phone, RTTY, data and CW
 ■ = RTTY and data
 ■ = phone and image
■ = SSB phone
 [CW symbol] = CW only

LF – Low Frequency band

2200 Meters (135 kHz) E,A,G
 1 W EIRP maximum



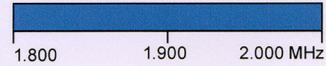
MF – Medium Frequency bands

630 Meters (472 kHz) E,A,G

5 W EIRP max, except in Alaska within 496 miles of Russia where the limit is 1 W EIRP



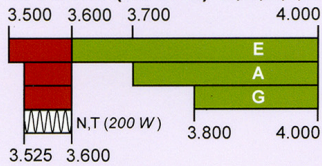
160 Meters (1.8 MHz) E,A,G



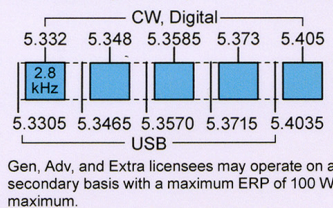
Amateurs wishing to operate on **2200 or 630 meters** must first register with the Utilities Technology Council online at <https://utc.org/plc-database-amateur-notification-process/>. You need only register once for each band.

HF – High Frequency bands

80 Meters (3.5 MHz) E,A,G,T,N

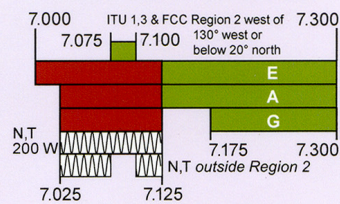


60 Meters (5.3 MHz) E, A, G (100 W)

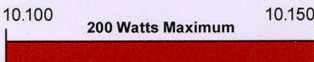


Gen. Adv. and Extra licensees may operate on a secondary basis with a maximum ERP of 100 W maximum.

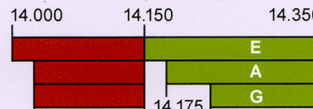
40 Meters (7 MHz) E,A,G,T,N



30 Meters (10.1 MHz) E,A,G



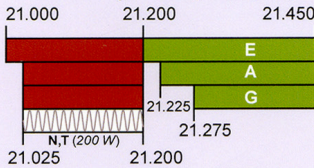
20 Meters (14 MHz) E,A,G



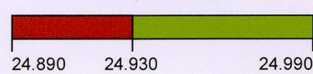
17 Meters (18 MHz) E,A,G



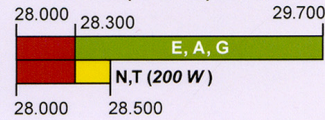
15 Meters (21 MHz) E,A,G,T,N



12 Meters (24 MHz) E,A,G

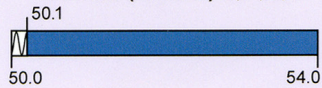


10 Meters (28 MHz) E,A,G,T,N

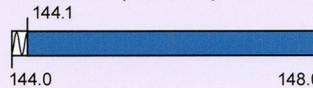


VHF – Very High Frequency bands

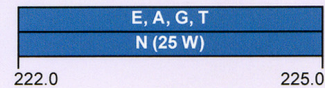
6 Meters (50 MHz) E,A,G,T



2 Meters (144 MHz) E,A,G,T

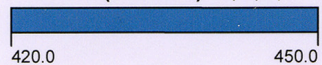


1.25 Meters (222 MHz) E,A,G,T,N

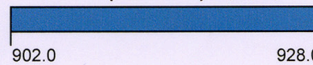


UHF – Ultra High Frequency bands

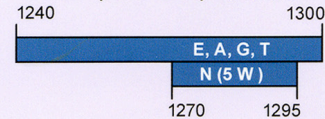
70 cm (420 MHz) E,A,G,T



33 cm (902 MHz) E,A,G,T



23 cm (1240 MHz) E,A,G,T,N



SHF&EHF – Super and Extremely High Frequency bands

All licensees except Novices are authorized all modes on the following frequencies:

2300-2310 MHz	3300-3500 MHz	10.0-10.5 GHz	47.0-47.2 GHz	122.25-123.0 GHz	241-250 GHz
2390-2450 MHz	5650-5925 MHz	24.0-24.25 GHz	76.0-81.0 GHz	134-141 GHz	All above 275 GHz

See www.arrl.org/band-plan for detailed band plans.

Copyright © ARRL 2020
 OTAbands rev. 1-22-20

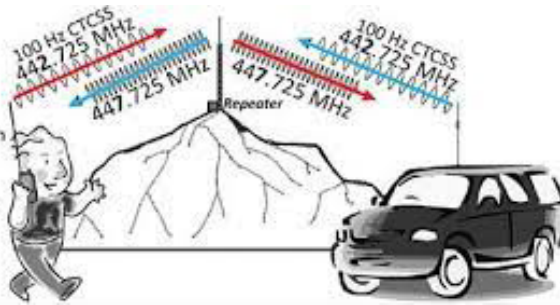


FRRL

70 cm Band
5 MHz Negative
Offset Example

447.725 MHz: Your Listen
(Repeater Transmit)

442.725 MHz: Your Talk
(Repeater Receive)



**AND OTHER
LOCAL REPEATERS**

FRRL Repeaters- W9CEQ

147.225 MHz - Plano

Mode: **Auto C4FM / Fusion, FM, Wires X**
+600 KHz Offset, 100.0 Access Tone

147.21 MHz - Elburn

Mode: FM (Echolink Available)W
+600 KHz Offset, 103.5 Access Tone

444.300 MHz - Elburn

Mode: FM
+5 MHz Offset, 114.8 Access Tone

223.86 Mhz - Aurora

Mode FM
-1.6 Mhz Offset, 110.9 access Tone

442.10625 MHz (B) - Elburn

Mode: D-Star
+5 MHz Offset



Other Area Repeaters

W9XA

53.910 - Batavia

-1.0 MHz offset PL 114.8 Hz

224.4 MHz - Batavia

-1.6 MHz offset PL 103.5 Hz

443.64375 MHz - Elburn

+5 MHz offset DMR 311759

443.65625 MHz - Plano

+5 MHz offset DMR 311760

1292.00 MHz - Batavia

-20 KHz 114.8 Access Tone

927.625 - Batavia

+25 MHz offset PL 114.8 Hz

W9DWP

145.270 MHz - Elburn

-600 KHz offset PL 107.2
ARES APCO P25 NAC 293

NIARC W9ZGP

147.06 MHz - Batavia

Mode FM +600 kHz offset PL 103.5.

Auto C4FM / Fusion, FM, Wires X Repeaters

K9IIK/R

442.275 MHz - Schaumburg

Mode: **Auto C4FM / Fusion, FM, Wires X**
+5 MHz, 114.8 Access Tone

W9CHI

444.600 MHz - Channahon

Mode: **Auto C4FM / Fusion, FM, Wires X 30024**
+5 MHz, 136.5 Access Tone

KD9FA

443.600 MHz - Oswego

Mode: **Auto C4FM / Fusion, FM, Wires X**
+5 MHz, 107.2 Access Tone

KC9OEM

Primary Kane County SKYWARN / ARES

145.470 MHz -St Charles

Mode: FM
-600 Offset, 103.5 KHz Access Tone



444.525 MHz -St Charles

Mode: **Auto C4FM / Fusion, FM, Wires X**
+5 MHz Offset, Access WWTone114.8

