



# ARCOVER



**MAY 2021**

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

**1924**  **2021**

## Who We Are

Mailing Address:  
P. O Box 673  
Batavia, IL 60510-0673

Email: [info@frrl.org](mailto:info@frrl.org)  
Website: <http://www.frrl.org>

President:  
Gordon Dailey, KW0E

Vice President:  
Roger Bara, W9YU

Secretary:  
Dean Holste, KC9EOQ

Treasurer:  
Dan Harmon, WA9YKK

Directors:  
Cedrick Johnson WT2P  
Denny Barfuss W9HI  
Dave Bulkley K9WDB  
Robert Littler W9DSR

Past President:  
Mike Urso K9FE

License Trustee (W9CEQ):  
Kermit Carlson, W9XA

License Trustee (W9NE):  
Denny Barfuss W9HI

Newsletter Editor:  
Jerry Chapman N9JLC

Webmaster:  
Mark Van Daele K9MEV

Membership Database:  
Chris Kennell, KC9BKS

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.

- Page 1 Club Information
- Page 2 Presidents Message
- Page 3-4 Meeting Minutes
- Page 5 Calendar
- Page 6-7 News
- Page 8 Radio's for sale
- Page 9 Classes
- Page 10 DeKalb Hamfest
- Page 11 Radio In The Park
- Page 12 FRRL Field Day
- Page 13 VE Testing
- Page 14 - 15 Misc Info

### Social Distancing



Keep one wavelength  
apart at 147.21 Mhz



Page1





Hi All,

As we head into May means we have 56 day until Field Day. This is an opportunity for all new hams to operate with an Elmer/mentor right with them. Don't let this chance go by without giving it a try.

Along with this encouragement. Don't be shy about asking questions about an aspect of the hobby. While there are many areas and directions we as hams participate in or want to try. We have a wealth of members that have experience and are willing to help. Don't be shy, ask and someone will be able to or help you contact someone that does have the knowledge to help.

I want to acknowledge our Arcover editor *Jerry*, N9JLC. Our webmaster *Mark*, K9MEV. Our database manger *Chris*, KC9BKS and our net control mgr. *Curt*, W9YNP. Thanks for the excellent job y'all do.

Until next month, stay radioactive.

**73, Gordie KW0E**



**Presidents  
WELCOME  
To The  
FRRL !!**

Call Sign	Name	License Class
KD9SDM	Bruce Nadro	Tech
WB9URN	Allen Thomas	General
	Rob Potthoff	
KD9RXZ	Brian Peterson	Tech





# MEETING MINUTES



**APRIL 13, 2021**

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

Meeting Minutes April 13, 2021-

The April meeting of the Fox River Radio League was conducted via Zoom.

There were 27 members present via video conference.

The meeting was called to order at 1930 CST by President Gordon Dailey, KW0E  
All Board members were present except, CJ, WT2P and Terry, W9AUV

Acceptance of the March 2021 Membership Meeting minutes as printed in the ArcOver were approved by the  
membership. Motion: Marty, N9NTM; 2<sup>nd</sup>: Dave, K9WDB

**Treasurer's Report:** Dan WA9YKK, reported the account bank balances as of 04-09-2021.  
Motion to accept the Treasurer's report, Denny, W9HI; second, Dave, K9WDB Approved.

**Director:** Terry W9AUV, not present

**Director:** Robert W9DSR, there is a SET on May 1<sup>st</sup>. A sim test will be on April 20<sup>th</sup>.

**Director:** Dave W9WDB, no report at this time.

**Director:** CJ WT2P, not present

**Education:** Denny, W9HI, both classes are going well. Some students cannot always make it. Classes are being recorded  
for future use.

**VE Test:** Sessions will be held on the third Thursday of every month at the Geneva Lutheran Church. The next session is  
April 15<sup>th</sup> at the church. The May session will be one week later on May 27<sup>th</sup> to accommodate the Technician and General  
class students.

**Membership:** Chris, KC9BKS reported that we have 120, members as of this month.

**Repeater:** No report



**Old Business:**

Meetings: All meetings will be conducted using Zoom until further notice.

Field Day: Mike is looking for a band captain for 80/15 CW. Denny, W9HI will do 20-meter SSB. We also need a 40-meter CW and SSB band captain. We will be at the LeRoy Oakes Forest Preserve again. The station layout will be the same as previous years.

Build-a-Thon: Denny, W9HI displayed a kit in which you will build a FM radio. The kit comes with a soldering pen, goggles, and parts for about \$20.00. The consensus of members present thought this would be a good idea.

**New Business:**

None

**Announcements:**

None

**Adjournment:**

The meeting was adjourned at 1955hrs CDT.

**Upcoming Events:**

- April 20<sup>th</sup> Newsletter Deadline
- May 4<sup>th</sup>, BOD Meeting via Zoom
- May 11<sup>th</sup>, Membership Meeting via Zoom
- May 20<sup>th</sup>, Newsletter Deadline

**Program:**

A You Tube video on the Yaesu Wires-X system shown by Gordie, KW0E.

Respectfully submitted,

**Dean Holste**, KC9EOQ  
FRRL Secretary



As mentioned above in the meeting minutes for the  
**BUILD-A-THON**

I found this kit on Amazon for \$20.81.

More information to follow as details are worked out



WEmake FM Radio DIY  
Soldering Kit with Tools |  
Soldering Iron | Side Cutters |  
Safety Glasses | Lead Free  
Solder | Great Stem Project



# MAY 2021



## Fox River Radio League

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1  Loyalty Day
2	3	4 1900 FRRL BOD Meeting 1930 FRRL2m Net	5 Technician License Class 1830-2130	6 General License Class 1830-2130	7	8
9 	10	11 1930 FRRL Member Meeting (ZOOM)	12 Technician License Class 1830-2130	13 General License Class 1830-2130	14	15
16	17	18 1930 FRRL 2m Net	19 Technician License Class 1830-2130	20  General License Class 1830-2130	21	22
23	24	25 1930 FRRL 2m Net	26 Technician License Class 1830-2130	27 General License Class 1830-2130	28	29
30	31 					<b>May 27th</b> VE Testing 1800 Geneva Lutheran Church
 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		



For ARRL events please go to <http://www.arrl.org/contest-calendar>





### **ARLB013 FCC Issues Enforcement Advisory: Radio Users Again Reminded Not to Use Radios in Crimes**

On April 20, the FCC's Enforcement Bureau issued a new Enforcement Advisory, repeating the admonishments contained in a January Advisory that no licensee or user of the Amateur or Personal Radio Services may use any radio equipment in connection with unlawful activities of any nature.

The Enforcement Advisory can be found online in PDF format at,

<https://docs.fcc.gov/public/attachments/DA-21-453A1.pdf> .

The Commission specifically cautioned that individuals found to have used radios in connection with any illegal activity are "subject to severe penalties, including significant fines, seizure of the offending equipment, and in some cases, criminal prosecution."

In addition, licensees should be aware that illegal operation in any service or band, including completely outside the amateur allocations, could potentially disqualify a person from holding any FCC license in any service, not just the Amateur Service.

Any amateur observing a suspicious infraction that might be of illegal or criminal nature should report it to their local law enforcement office or the FBI.

NNNN  
/EX



Dayton Hamvention® has information about online activities over Hamvention weekend, Visit the link below for information.

**May 20 - 22**

<https://hamvention.org/>



Page6





## **ARLB011 Updated Radio Frequency Exposure Rules Become Effective on May 3**



The FCC has announced that rule changes detailed in a lengthy 2019 Report and Order governing RF exposure standards go into effect on May 3, 2021. The new rules do not change existing RF exposure (RFE) limits but do require that stations in all services, including amateur radio, be evaluated against existing limits, unless they are exempted. For stations already in place, that evaluation must be completed by May 3, 2023. After May 3 of this year, any new station, or any existing station modified in a way that's likely to change its RFE profile - such as different antenna or placement or greater power - will need to conduct an evaluation by the date of activation or change.

The Report and Order can be found online in PDF format at,

<https://docs.fcc.gov/public/attachments/FCC-19-126A1.pdf>.

"In the RF Report and Order, the Commission anticipated that few parties would have to conduct reevaluations under the new rules and that such evaluations will be relatively straightforward," the FCC said in an April 2 Public Notice. "It nevertheless adopted a 2-year period for parties to verify and ensure compliance under the new rules."

The Amateur Service is no longer categorically excluded from certain aspects of the rules, as amended, and licensees can no longer avoid performing an exposure assessment simply because they are transmitting below a given power level.

"For most amateurs, the major difference is the removal of the categorical exclusion for amateur radio, which means that ham station owners must determine if they either qualify for an exemption or must perform a routine environmental evaluation," said Greg Lapin, N9GL, chair of the ARRL RF Safety Committee and a member of the FCC Technological Advisory Council (TAC).

"Ham stations previously excluded from performing environmental evaluations will have until May 3, 2023, to perform these. After May 3, 2021, any new stations or those modified in a way that affects RF exposure must comply before being put into service," Lapin said.

The December 2019 RF Report and Order changes the methods that many radio services use to determine and achieve compliance with FCC limits on human exposure to RF electromagnetic fields. The FCC also modified the process for determining whether a particular device or deployment is exempt from a more thorough analysis by replacing a service-specific list of transmitters, facilities, and operations for which evaluation is required with new streamlined formula-based criteria. The R&O also addressed how to perform evaluations where the exemption does not apply, and how to mitigate exposure.

Amateur radio licensees will have to determine whether any existing facilities previously excluded under the old rules now qualify for an exemption under the new rules. Most will, but some may not.

"For amateurs, the major difference is the removal of the categorical exclusion," Lapin said, "which means that every ham will be required to perform some sort of calculation, either to determine if they qualify for an exemption or must perform a full-fledged exposure assessment. For hams who previously performed exposure assessments on their stations, there is nothing more to do."

The ARRL Laboratory staff is available to help amateurs to make these determinations and, if needed, perform the necessary calculations to ensure their stations comply. ARRL Laboratory Manager Ed Hare, W1RFI, who helped prepare ARRL's RF Exposure and You book, explained it this way. "The FCC did not change any of the underlying rules applicable to amateur station evaluations," he said. "The sections of the book on how to perform routine station evaluations are still valid and usable, especially the many charts of common antennas at different heights." Hare said ARRL Lab staff also would be available to help amateurs understand the rules and evaluate their stations."

RF Exposure and You is available in PDF format for free download from ARRL at,

<http://www.arrl.org/files/file/Technology/RFsafetyCommittee/28RFSafety.pdf>

ARRL also has an RF Safety page on its website at,

<http://www.arrl.org/rf-exposure> .

The ARRL RF Safety Committee is working with the FCC to update the FCC's aids for following human exposure rules - OET Bulletin 65 and OET Bulletin 65 Supplement B for Radio Amateurs. In addition, ARRL is developing tools that all hams can use to perform exposure assessments.





Selling: Kenwood TS-570DG Transceiver. Serial #80700007 160-10 Meters (including WARC Bands). 5-100 watts output SSB, CW, AM, FSK, and FM Modes. Has General Coverage receive for those who enjoy shortwave broadcast listening. The transceiver has a built-in antenna tuner and the optional voice synthesizer (annunciator) board. Near mint condition in box, no mars, no scratches, no dings, not even dust. Asking \$450, includes MC-43 up-down microphone and manual. Larry Stark, K9ARZ , St. Charles <[k9arz@yahoo.com](mailto:k9arz@yahoo.com)>



Selling: a very nice Kenwood TS-520SE 100 watt output 160-10 Meter SSB/CW Transceiver. Does not cover the WARC bands. Very nice condition except for a small mar on the front panel top bezel. Works very well and looks good otherwise, with side access panel (missing on many 520's). Includes optional 500Hz CW filter. Will work with most microphones above 600 ohms. Great analog audio performance. Asking \$250. Contact Larry, K9ARZ <[k9arz@yahoo.com](mailto:k9arz@yahoo.com)>



### Golden Rules of Borrowing

- Return** it Quickly
- Return** it in Great Condition
- Break it** - Replace it
- Return** the Favor





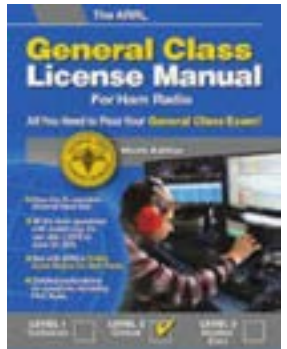


# General License Class

March 25, 2021 to May 27, 2021  
6:30pm - 9:30pm CST

Instructors needed for these classes.. You don't need to be a ham radio wizard to teach. Just be willing !!

Class Type	Traditional
Class Level	General
CW Class Also Offered?	No
Number of sessions	10
Pre-registration required?	No
Fee?	0
Pre-study required?	No
Exam Offered?	Yes
Instructor Callsign	WA9YKK
Sponsoring Club/Organization	Fox River Radio League (FRRL)
Additional Information	These Are ZOOM classes meeting every <b>Thursday</b> at 6:30 CST. Contact Denny W9HI at <a href="mailto:education@frrl.org">education@frrl.org</a> for more information
ARRL Section	
Location Title	Online
Address	Online
City	N/A
State	IL
Zip Code	00000
Contact name	Daniel Harmon
Contact callsign	WA9YKK
Public contact phone	630-272-1768



# Technician License Class

March 24, 2021 to May 26, 2021  
6:30pm - 9:30pm CST



Class Level	Technician
CW Class Also Offered?	No
Number of sessions	10
Pre-registration required?	No
Fee?	0
	Class Type
Pre-study required?	No
Exam Offered?	Yes
Instructor Callsign	WA9YKK
Sponsoring Club/Organization	Fox River Radio League (FRRL)
Additional Information	These are ZOOM classes meeting every <b>Wednesday</b> at 6:30 CST. Contact Denny W9HI at <a href="mailto:education@frrl.org">education@frrl.org</a>
ARRL Section	
Location Title	Online
Address	Online
City	N/A
State	IL
Zip Code	00000
Contact name	Daniel Harmon
Contact callsign	WA9YKK
Public contact phone	630-272-1768



Instructors needed for these classes.. You don't need to be a ham radio wizard to teach. Just be willing !!



# The DEKALB Hamfest



Sponsored by the Kishwaukee Amateur Radio Club  
**Sunday....May 2, 2021....8 AM to 1 PM**  
 Vendor Set-up—Saturday 1 PM to 9 PM and Sunday at 6 AM  
 \$8.00 Advance Ticket (Double-Stub—See Below)  
 \$10.00 Admission at the gate (Single Stub)  
**Bills larger than \$20 not accepted at the gate**

**Overnight Camping on Fairgrounds \$10 includes Electrical and Water**

**Rain or Shine**  
**2 Large Buildings**  
**CASH Prizes**  
**Prize Drawings Every Half Hour**

**TAILGATING**  
**Free Outside**  
**No VE Testing**  
**Chairs Not Furnished**

**Food Vendor: Hyvee**  
**Fairground regulations prohibit**  
**Vehicles in buildings**

**Masks and Social Distancing Required.**



Always the First Sunday in May. May 2, 2021  
 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

\*\*\*\* PLEASE USE MAIN GATE \*\*\*\*  
 ?????????????? Questions ??????????????

Phone: Bob Yurs—W9ICU—Hamfest Chairman at 815-757-3219  
 Or e-mail w9icu@arrl.net  
 KARC Hamfest Webpage / Hotel Info: [www.karc-club.org](http://www.karc-club.org)

Return to: KARC, PO Box 371, DeKalb, IL 60115  
**Deadline: April 20, 2021 MUST INCLUDE SASE FOR ADVANCE TICKET SALES**

\_\_\_\_\_ 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

## ARLX005 Annual Armed Forces Day Cross-Band Test Set for May 7 - 8

The US Department of Defense will host this year's Armed Forces Day (AFD) Cross-Band Test, Friday and Saturday, May 7-8, in recognition of Armed Forces Day on May 15. The event is open to all radio amateurs. For more than 50 years, military and amateur stations have taken part in this exercise, designed to include amateur radio and government radio operators alike.

The AFD Cross-Band Test is a unique opportunity to test two-way communications between military and amateur radio stations, as authorized under FCC Part 97 rules. These tests provide opportunities and challenges for radio operators to demonstrate individual technical skills in a tightly controlled exercise in which military stations will transmit on selected military frequencies and will announce the specific amateur radio frequencies being monitored.

The schedule of military/government stations taking part in the Armed Forces Day Cross-Band Test and information on the AFD message is available on the MARS website at,

<http://www.dodmars.org/home/armed-forces-day-2021> .

Complete the request form to obtain a QSL card at,

<http://www.usarmymars.org/events> .



NNNN

### 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](mailto:Director3@frrl.org)

Dave K9wdb



# 2021 FRRL Field Day Info

FD Chair - **Mike Urso K9FE**  
[fieldday@frrl.org](mailto:fieldday@frrl.org)



All times Local (CDT)  
Setup:  
Fri. June 25 12:00 PM

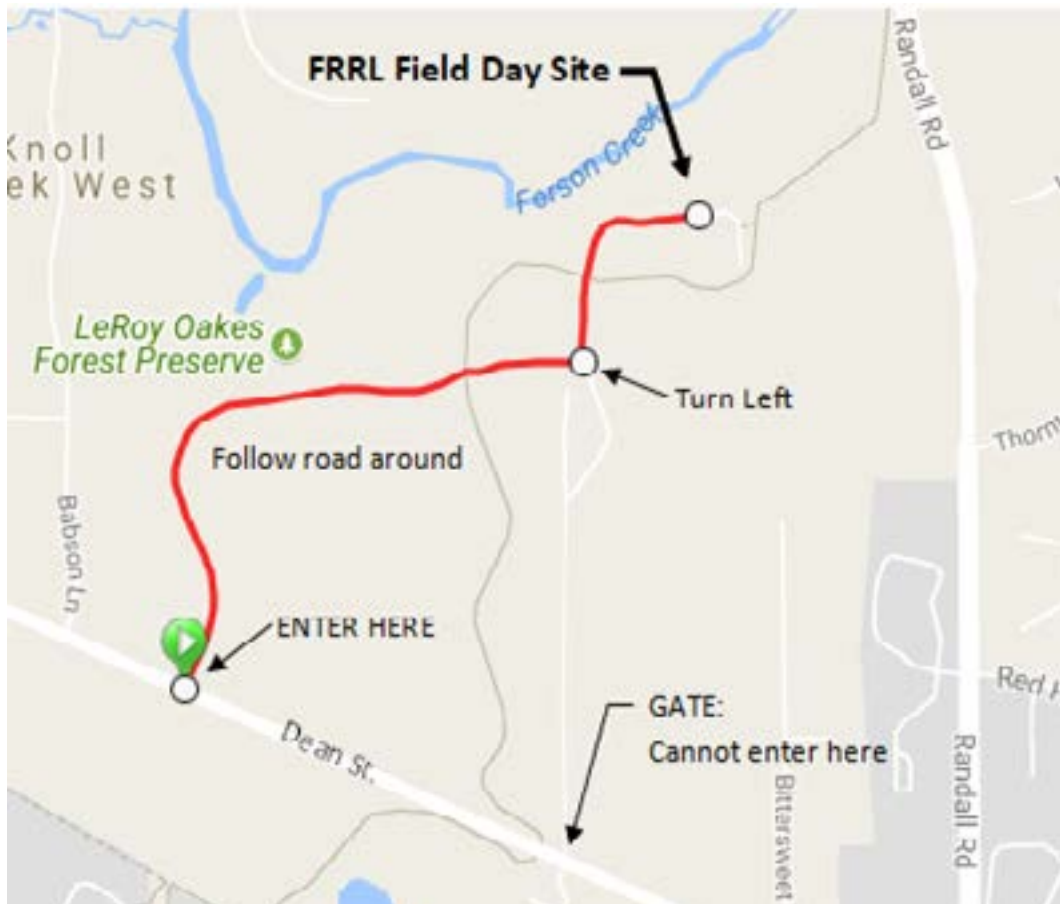
Operation:  
June 26 1:00 PM thru June 27 1:00 PM

Breakdown:  
June 27 3:59 PM

Location:  
LeRoy Oakes Forest Preserve

FRRL Field Day Location, LeRoy Oakes Forest Preserve

Map inside LeRoy Oakes to get to the Field Day Site



## TECHNICIAN CLASS ANSWERS FROM LAST MONTH

T9B03

Why is coaxial cable the most common feed line selected for amateur radio antenna systems?

(X) B. It is easy to use and requires few special installation considerations

## 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 18, 2021 at 6:00 PM  
April 15, 2021 at 6:00 PM  
May 27, 2021 at 6:00 PM  
June 17, 2021 at 6:00 PM

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



All events subject to COVID-19 venue availability and restrictions.  
Please pre-register by emailing [ve@frrl.org](mailto:ve@frrl.org). 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](mailto:ve@frrl.org)



## ARLB014 FCC Auto-Registration Feature for Exam Applicants to be Discontinued

Auto-registration in the FCC Commission Registration System (CORES) amateur radio exam for candidates using a Social Security number will be discontinued on May 20, 2021. Applicants must use an FCC Registration Number (FRN) for all license transactions with the FCC. Examinees must register in CORES and receive an FRN before exam day. Starting on May 20, electronic batch filed applications that do not include a candidate's FRN will be rejected. The Social Security/Licensee ID Field will be disabled.

The CORES website can be accessed at:

<https://apps.fcc.gov/cores/userLogin.do> .

An instructional video provides step-by-step instructions on how to establish a CORES account, which is necessary for licensees to make administrative updates and download electronic license authorizations.

The instructional video can be found at, <https://www.fcc.gov/rofrn> .

After June 29, all filers must provide an email address on all applications. When an email is provided, applicants will receive an official electronic copy of their licenses once granted (allow incoming email from [authorizations@fcc.gov](mailto:authorizations@fcc.gov)). If no email is provided when filing on or after June 29, applications will be rejected. ARRL VEC suggests that those without access to email to use the email address of a family member or friend.

Further information about providing an email address can be found at,

<http://www.arrl.org/news/fcc-to-require-email-address-on-applications-starting-on-june-29-2021>

Licensees need to log in to the Universal Licensing System (ULS) to download their authorizations. The FCC no longer issues paper copies.



NNNN



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.

How to Get Involved in ARES: Contact to your local Emergency Coordinator.

<http://kanecountyares.org/about>



## RF Awareness Guidelines

These guidelines were developed by the ARRL RF Safety Committee, based on the FCC/EPA measurements of Table 28.4 and other data.



- Although antennas on towers (well away from people) pose no exposure problem, make certain that the RF radiation is confined to the antennas' radiating elements themselves. Provide a single, good station ground (earth), and eliminate radiation from transmission lines. Use good coaxial cable or other feed line properly. Avoid serious imbalance in your antenna system and feed line. For high-powered installations, avoid end-fed antennas that come directly into the transmitter area near the operator.
- No person should ever be near any transmitting antenna while it is in use. This is especially true for mobile or ground-mounted vertical antennas. Avoid transmitting with more than 25 W in a VHF mobile installation unless it is possible to first measure the RF fields inside the vehicle. At the 1-kW level, both HF and VHF directional antennas should be at least 35 ft above inhabited areas. Avoid using indoor and attic-mounted antennas if at all possible. If open-wire feeders are used, ensure that it is not possible for people (or animals) to come into accidental contact with the feed line.
- Don't operate high-power amplifiers with the covers removed, especially at VHF/UHF.
- In the UHF/SHF region, never look into the open end of an activated length of waveguide or microwave feed-horn antenna or point it toward anyone. (If you do, you may be exposing your eyes to more than the maximum permissible exposure level of RF radiation.) Never point a high-gain, narrow-bandwidth antenna (a paraboloid, for instance) toward people. Use caution in aiming an EME (moonbounce) array toward the horizon; EME arrays may deliver an effective radiated power of 250,000 W or more.
- With hand-held transceivers, keep the antenna away from your head and use the lowest power possible to maintain communications. Use a separate microphone and hold the rig as far away from you as possible. This will reduce your exposure to the RF energy.
- Don't work on antennas that have RF power applied.
- Don't stand or sit close to a power supply or linear amplifier when the ac power is turned on. Stay at least 24 inches away from power transformers, electrical fans and other sources of high-level 60-Hz magnetic fields.



### *ARRL, American Red Cross Renew Memorandum of Understanding*

ARRL and the American Red Cross (ARC) have renewed their long-standing Memorandum of Understanding (MOU) for another 5 years. The MOU spells out how ARRL and the American Red Cross will work cooperatively during a disaster response.

