



ARC OVER



The Official Newsletter of the Fox River Radio League, Est. 1924
Our 95th Year in Amateur Radio!

Who We Are

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Education Chair:
Vacant

Newsletter Editor:
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Webmaster:
Curt Sauer W9YNP

Membership Database:
Chris Kennell KC9BKS



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.

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The FRRL ArcOver Newsletter is published monthly by the Fox River Radio League, Inc. Submission deadline for all news articles, items, and information is the 3rd Tuesday of each month for inclusion by the next publishing date. Please submit any such requests to newsletter@frrl.org.

2019 Membership Dues

Regular Dues: \$30 | Family Dues: \$40 | Sr. Citizen / Active Military / Student (full time under 22): \$25
Repeater Support: \$10 donation

FRRL Dues and Repeater Support are payable no later than the January club meeting each year. New members joining during the year will have their first year's dues prorated to the nearest yearly quarter. Copyright © 2019, FRRL. Prior written permission is required to republish material present in the ArcOver.

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President's Traffic

From the President's Desk

This year has been one of change for the Fox River Radio League and as I look forward toward the next six months I see that change will continue. In September I will convene the Nominating Committee. It will be tasked with putting together the slate of officers and directors for next year. If you would like to serve on this committee please let me know. More importantly, let me know if you are considering serving as an officer or board member next year. All officer positions and 2 board member positions will be up for grabs this year. I know that I will not be returning as president next year as I will have fulfilled my 2 year term limit. Serving as an officer or director is a way to set the direction and activities that the club presents to our members. It is a great way to give back. I ask that you consider being involved and seeking election as an officer or club director.

In July I taught topics at two Technician classes. When I prepare for these classes, I always feel conflicted. On the one hand, I want to provide the students "all there is to know" about the topic, within the bounds of the license class. On the other hand, I want to provide students with the info they need to pass the exam. We should be able to do both but within the confines of time allowed it is just not possible. I have to realize that the best we can do it provide the info needed to pass the exam. That is why the students are sitting in front of me. So what do I do? I start the class explaining to the students that in the time allotted I cannot spoon-feed the exam to them. They will have to spend time studying the topics in the book on their own. They need to use sample exam apps that are available online. And I let them know that getting their license is just the beginning of their



learning. I explain that there is so much more to amateur radio than what they see in their book and that their new call sign is the gateway to learning. How have you used your gateway? What new skills have you learned? How have you pushed your learning of new radio knowledge? At our July meeting I saw the meeting of 1960 technologies, the Heathkit 2 meter AM transceiver, 2000's kit building, and 2015 handhelds. It was interesting to see how they worked or did not work together. Thank you John KC9OJV.

What can you share with the club?
-Dan W9STS

Test Your Knowledge!

Each month the ArcOver will post 3 Exam Test Pool Questions to challenge you - one from each of the Technician, General, and Extra Class License Exams. Answers will be hidden throughout the ArcOver.

Technician - T6D01

Which of the following devices or circuits changes an alternating current into a varying direct current signal?

- A. Transformer
- B. Rectifier
- C. Amplifier
- D. Reflector

General - G5C15

What is the total resistance of a 10 ohm, a 20 ohm, and a 50 ohm resistor connected in parallel?

- A. 5.9 ohms
- B. 0.17 ohms
- C. 10000 ohms
- D. 80 ohms

Extra - E7C12

Which describes a Pi-L-network used for matching a vacuum tube final amplifier to a 50 ohm unbalanced output?

- A. A Phase Inverter Load network
- B. A Pi-network with an additional series inductor on the output
- C. A network with only three discrete parts
- D. A matching network in which all components are isolated from ground



Member Traffic

A place for you, our FRRL members, to come share your thoughts, voice your opinions, and talk about any topics that may be of general interest to the FRRL club or Amateur Radio in general.

All,

Some of you saw me jump start a pickup truck at Field Day with my Harbor Freight Viking power supply. It normally provides 12v at 6 amps. I originally bought it for QRP portable use and it works great for that- can also charge cell phones. I knew it could also provide north of 300 amps very briefly to start a car (special port and special cable for this) and it proved up to the task that weekend.

When I got home I began looking to see if there is a larger version. Surprisingly there really isn't much. The reason is these emergency car starters all use LiFePO4 (Lithium Iron Phosphate) batteries because they can provide exactly automotive 12v with no circuitry to buck or boost. Standard Lithium Ion cells don't end up with the right multiple to hit that voltage. The "Power Stations" you can buy with built-in AC outputs mostly use standard Lithium Ion cells not LiFePO4.

The differences are important. Lithium Iron Phosphate can be recharged up to 2000 times- standard Lithium about 500. Lithium Iron Phosphate could start a fire with a 200 amp short but they will not spontaneously combust like cheap Lithium Ion cells have been known to do. Ham radio guys have built portable power packs for field use and they usually use LiFePO4 because they're safer and land at the proper voltage naturally. I'm not an expert on these batteries but

I've learned enough to know if and when I buy a larger lithium power pack it will definitely be LiFePO4 as my Harbor Freight Viking is.

73, John KC9OJV

[Ed. Note: In addition to being a safer technology than standard Lithium Ion batteries, LiFePO4 have the benefit of being very light-weight. Compared to traditional lead-acid batteries, an equivalent rating LiFePO4 battery is half the weight, or less. In addition, the discharge curve is more favorable to amateur radio use as the voltage stays near 13.8v for most of the discharge cycle. A traditional lead-acid battery will drop under 12.5v about halfway through its discharge cycle, at which point many transceivers will either turn off or begin folding back output power. The only real downside to LiFePO4 is the additional upfront cost.]

~

Dear All,

I am looking for a volunteer to fill the vacant Education Chair position. In the past few years, we have consistently run Tech, General, and Extra classes, and this is a key part of maintaining our ARRL Special Service Club designation. This responsibility would include booking an appropriate venue, breaking down the book into classes (typically by chapter from the ARRL License Manuals), and scheduling instructors. Luckily, we have quite a few talented individuals in our club who have either taught in the past or who might be willing to teach in the future.

If you are interested in volunteering, please see me at a club meeting or email me at director2@frrl.org.

73, John W9JDM

New Members		
Please welcome our newest members to the club!		
Call	Name	License Class
WB9PHK	Todd Miller	Amateur Extra
W9MZ	Robert Naegele	Amateur Extra
In Memoriam (Silent Keys)		
Call	Name	Location



Upcoming Events

Come join us at an event - some are on the airwaves, and some are in person.

This format is designed to be easy to print and hang on your fridge.

AUGUST 2019						
S	M	T	W	T	F	S
				1	2	3
4	5	B N	6	7	8	9
10	11	12	M	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SEPTEMBER 2019						
S	M	T	W	T	F	S
1	2	B N	3	4	5	6
7	8	9	10	M	11	12
13	14	15	16	17	N T	18
19	20	21	22	23	24	C
25	26	27	28	29	30	

OCTOBER 2019						
S	M	T	W	T	F	S
		B N	1	2	3	4
						C
5	6	7	8	M	9	10
11	12	13	14	15	16	17
18	19	N	20	21	22	C
23	24	25	26	27	28	
29	30	31				

B August 6: Board Meeting

- 7:00PM
- Colonial Cafe in Aurora

N August 6, 20, 27: Regular FRRL Net

- 7:30PM
- W9CEQ 2M Repeater

M August 13: Member Meeting

- 7:30PM
- Bethany Lutheran Church in Batavia, Ill.
- Program: Harry K9DXA
I've Got a License, Now What?

B Sept. 3: Board Meeting

- 7:00PM
- Colonial Cafe in Aurora, Ill.

N Sept. 3, 17, 24: Regular FRRL Net

- 7:30PM
- W9CEQ 2M Repeater

M Sept. 10: Member Meeting

- 7:30PM
- Bethany Lutheran Church in Batavia, Ill.
- Program: Dan WA9YKK
Wire Antenna Design

T Sept. 17: VE Testing (TBD)

- 7:00PM
- Venue TBD: Messenger Library parking lot under construction.

C Sept. 21, 28: General Class

- 9am-noon
- Golden Corral in Aurora, Ill.

B Oct. 1: Board Meeting

- 7:00PM
- Colonial Cafe in Aurora, Ill.

N Oct. 1, 15, 22, 29: Regular FRRL Net

- 7:30PM
- W9CEQ 2M Repeater

C Oct. 5, 12, 19, 26: General Class

- 9am-noon
- Golden Corral in Aurora, Ill.

M Oct. 8: Member Meeting

- 7:30PM
- Bethany Lutheran Church in Batavia, Ill.
- Program: TBD



Event Information: Field Day Special Report

If you have an idea for an event, or would like to share details on an upcoming event, please reach out to John W9JDM at director2@frrl.org or Priscilla AE9PM at director3@frrl.org.



The Fox River Radio League had yet another great Field Day at Leroy Oaks in St. Charles, Ill. We operated 7A - 7 HF stations plus the West Chicago EMA VHF/UHF trailer and GOTA. Tom Hardin KC9SHU (Aurora, Ill. EMA Director) graciously provided our generator and Steve Gottlieb (Director of West Chicago EMA) provided their Emergency trailer for VHF/UHF operation. Both visited our site.



This year in addition to 3 CW stations and 3 Phone stations, we had our Digital Station run by Michael Bingham WX9SPL utilizing FT-8 for the entire duration of FD. All worked well.

We were blessed to have about 45 people come out to help setup, run, and take down our stations. Our FD chairman AA5TN Gordie made arrangements for an awesome lunch and dinner that included pork chops and burgers. We did have a little rain overnight, but nothing too bad.



We were also visited by Kermit Carlson W9XA (ARRL Central Division Director). Our Welcome tent was always busy having people learn how to send their names in Morse code. Dave W9BOO also demonstrated FT-8 Reception.



Our GOTA team was again well represented with John W9JDM as the GOTA Band Captain and Priscilla AE9PM and Ken KE9NM as GOTA Coaches. Their enthusiasm for helping non-hams and new hams alike is stellar.



Technician - T6D01

Which of the following devices or circuits changes an alternating current into a varying direct current signal?

B. Rectifier



After everyone went back to operating on Saturday evening, we were happily surprised by about 25 kids from a local scout troop. They visited several of our stations and were shown how HT's worked and watched as contacts on CW and Phone were made. All the band captains did a great job and we are excitedly looking forward to next year.

Repeater Information

Club sponsored or club affiliated local repeaters are listed below.

KC9OEM 2M

- 145.470 MHz, -600 KHz offset
- 103.5 Hz tone
- Net: Wed. 6:30PM
- Owned by Kane Co. OEM

W9CEQ 2M

- 147.210 MHz, +600 KHz offset
- 103.5 Hz tone
- Net: Tues. 7:30PM (except second Tues. of month)
- Owned by FRRL

W9CEQ 70CM

- 444.300 MHz, +5 MHz offset
- 114.8 Hz tone
- IRLP #4850, Echolink #230933
- Owned by FRRL

W9CEQ_B D-Star 70CM

- 442.10625 MHz, +5 MHz offset
- Contact W9XA for information

W9CEQ_C D-Star 2M

- 147.225 MHz, +600 KHz offset
- Net: 8:00PM Wed.
- Contact W9XA for information

More repeater information can be found at frrl.org/repeaters.

Meeting Minutes July 9, 2019

Minutes of the Regular Meeting of the General Membership of the Fox River Radio League (FRRL), an Illinois not-for-profit Corporation. Held at Bethany Lutheran Church, Batavia, Ill.

The meeting was called to order at 19:30 CDT by President Dan W9STS. Audience introductions: Name, Call, QTH and "What would you like to see as a Club Program"? Approval of June 2019 Member Meeting minutes: Motion was moved, seconded and accepted. There were 36 people present at this meeting.

Reports

Treasurer's Report

Dan WA9YKK

Dan reported the balances as of 07/01/2019.

Field Day/Repeater

Jim N9XP

Dave N9XU is still looking for new net control operators. Repeaters are up and running. Repeater repair is waiting for crew availability.

Classes/Programs/VE

John W9JDM

John gave the current status of the Education Classes and upcoming VE Sessions. Please see John if you have an idea or want to present a program.

Outreach/Newsletter/PR

Priscilla AE9PM

The final CAP program class was last week. Priscilla thanked all who participated in the instruction for the CAP class. There may be a possible future involvement with the



Moose. The articles for the newsletter are due by the 3rd Tuesday of the month. Please e-mail John W9JDM if you have something to contribute to ArcOver.

Tech/Membership/Groups.io

Chris KC9BKS

The current member count is 130. There are 85 members enrolled in groups.io.

ARES

Debby WX9VOR

No report. Visit the website at <http://kanecountyares.org> or see Debby for further specific details on any event happening with ARES.

Repeater Report

Kermit W9XA

No report. Repeater money will be transferred into the Repeater Fund for expenses incurred with new cabling and a possible setup at a new site.

Old Business

Field Day Report

Denny W9HI thanked all who participated and supplied their help for Field Day. Denny gave a short presentation on the contact counts and the general operation at Field Day.

New Business

Call for Programs/Education

Committee Chairs

The Club needs a new Programs Committee Chair and Education Chair. If you are interested in

General - G5C15

What is the total resistance of a 10 ohm, a 20 ohm, and a 50 ohm resistor connected in parallel?

A. 5.9 ohms





Come join the camaraderie at one of our monthly meetings! The social hour following the business portion is a great opportunity to meet your fellow hams.

participating, please let a Board Member know.

Announcements

Marty N9NTM: Mentioned several upcoming Hamfests in the area.

Bob K9WMP: Motorola Radio Club is sponsoring an upcoming event in celebration of the Moon Landing.

Denny W9HI: Attended a meeting where bad propagation was mentioned, then he went home and worked the Cook Islands.

Tom N9HSJ: July 22 – August 2nd Boy Scouts World Jamboree will hold a radio event.

Upcoming Events

- July 9th Membership Meeting
- July 13th and 20th Technician Classes
- July 27th VE Session at Golden Corral
- July 14th CAP Technician VE Session
- August 6th Board Meeting
- August 13th Membership Meeting

Adjournment

A motion was received, seconded and carried to adjourn the meeting. The member meeting was adjourned at 20:01 CDT.

Respectfully submitted,
David Booher W9BOO
FRRL Secretary

Extra - E7C12

Which describes a Pi-L-network used for matching a vacuum tube final amplifier to a 50 ohm unbalanced output?

- B. A Pi-network with an additional series inductor on the output

Program

QRP 2m AM Transceiver – John KC9OJV. See the “Twoer” in action.





ARRL News

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No Consensus Reached for FCC on “Symbol Rate” Issues

ARRL-initiated efforts for rival parties to reach consensus on issues raised in the so-called “Symbol Rate” proceeding have ended. In April, the FCC granted ARRL’s request for a 90-day hold in the proceeding, FCC Docket WT 16-239, to provide an opportunity for ARRL to lead an effort to determine whether consensus could be reached on some or all of the issues that commenters raised in the FCC’s proceeding. The FCC already has issued a Notice of Proposed Rulemaking in WT 16-239, which stemmed from ARRL’s rulemaking petition RM-11708.

Discussions were since widened to include issues raised in another Petition for Rule Making, RM-11831, filed by Ron Kolarik, K0IDT, that seeks, “to ensure Amateur Radio digital modes remain openly decodable and available for monitoring” by the FCC and by other third parties, including other radio amateurs. His petition also aims to limit Automatically Controlled Digital Stations (ACDS) to identified subbands on HF, to reduce interference.

HWN and National Hurricane Center’s WX4NHC Activate for Tropical Storm Barry

Responding to then-Tropical Storm Barry, the Hurricane Watch Net (HWN) and WX4NHC -- the Amateur Radio station at the National Hurricane Center (NHC) in Miami -- activated on July 12. The HWN’s primary frequency is 14.325 MHz



with 7.268 MHz as a secondary channel, depending upon propagation. This time, the HWN fired up on both bands.

Net Manager Bobby Graves, KB5HAV, noted that the HWN would be available to provide back-up communication to official agencies in the affected area and would collect and report “significant damage assessment data” to FEMA officials at the National Hurricane Center.

The HWN works in concert with WX4NHC at the NHC to help forecasters get a better sense of ground-level meteorological data such as wind speed, barometric pressure, and rainfall.

WX4NHC remained active for 2 days, gathering surface reports from stations located in the affected areas for use by forecasters. “We received many reports about the flooding, downed trees, road closures, and power outages,” said WX4NHC Assistant Coordinator Julio Ripoll, WD4R. He expressed gratitude for the support of the Hurricane Watch Net and the EchoLink VoIP Hurricane Net (WX_TALK).

ARRL Announces “Happy 150!” Hiram Percy Maxim Birthday Celebration

This year marks the 150th anniversary of the birth of ARRL’s first president and cofounder Hiram Percy Maxim (HPM), W1AW, born on September 2, 1869. ARRL will hold an operating event to celebrate HPM’s legacy, getting under way at 0000 UTC on August 31, and continuing until 2359 UTC on September 8. The event is open to all radio amateurs.

The goal is straightforward: Contact as many participating stations as possible. W1AW and all ARRL members will append “/150” to their call signs during this event (DX operators who are ARRL members may identify as <call sign>/150, if permitted by their country of license.) Participating stations will exchange signal report and ARRL/RAC Section. DX stations will send signal report and “DX.” Those taking part may use all Amateur Radio bands, excluding 60, 30, 17, and 12 meters.

