



# ARC OVER

The Official Newsletter of the Fox River Radio League  
Since 1924

Our 90th Year in Amateur Radio!



December 2014



Proud to be an ARRL  
Special Services Club

## 2015 Membership Dues

You can now renew your membership for 2015 at the next two membership meetings. Dues will be taken until the January 2015 membership meeting. Below is the new member dues schedule as passed by the membership at the September club meeting.

Individual Membership (under 65)	\$25.00
Family Membership	\$35.00
Senior Citizen (65 & Over)	\$15.00
Senior Family (Both Spouses)	\$20.00
Student (Full Time, under 22)	\$15.00

A donation to the Repeater fund has not changed and remains at \$10.00 per year.

Checks should be made out to FRRL and is the preferred method of payment in order to prevent a missing name on a cash only list. Please be kind to your Treasurer and not gang up on him all at once at the meetings! You can also mail your dues to the club PO Box address.

Sincerely,  
Dean, KC9EOQ

### What's Inside

About FRRL.....	Page 2
HF Challenge.....	Page 3
Contest Tip.....	Page 4
President's Traffic.....	Page 5
Free Stuff.....	Page 6
December Contests.....	Page 7
November Minutes.....	Page 8
FRRL Banquet Info.....	Page 9
2015 Slate of Officers....	Page 10
Important Links, Repeaters and Net Info.....	Page 11

## About the FRRL

The Fox River Radio League, Inc., is a general interest amateur radio club serving the central Fox River Valley area. Records indicate the club has been in existence since at least 1924, and 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 IRS Statutes. We sponsor training classes for new hams, license examination sessions, an annual hamfest, and participate in various public service events. If you have a specialized amateur radio interest, chances are you can share it with one or more of our club members.

The Fox River Radio League meets on the 2nd Tuesday of every month at Bethany Lutheran Church at 8 S. Lincoln St in Batavia.. The meeting begins at 7:30 PM and includes a business portion, social time and a program of interest.

All persons interested in amateur radio are invited to attend. Families are welcome.

Please welcome our newest member to the club!

CALL	NAME	LICENSE CLASS
K9LLK	Larry King	Amateur Extra

## ArcOver FRRL Newsletter

Copyright 2014, FRRL©

The ArcOver is published monthly by the Fox River Radio League, Inc. Articles and letters are always welcome. The normal deadline for material is the 25th day of each month for the next month's newsletter. Articles can be sent by email to: [arcover@frrl.org](mailto:arcover@frrl.org) or via U.S. Mail to: FRRL Newsletter PO Box 673 Batavia, IL 60510.

Contact the Editor for details and submission guidelines.

Prior permission is required to republish original ArcOver material.

***The opinions expressed in the ArcOver are strictly those of the authors and do not necessarily represent those of the FRRL, Inc. or its sponsors.***

### Fox River Radio League

Founded 1924

#### Mailing Address:

P. O. Box 673  
Batavia, Illinois 60510-0673

#### Email:

[info@frrl.org](mailto:info@frrl.org)

#### Web Site:

<http://www.frrl.org>

#### President

Dawn Williams, KC9LQS

#### Vice President

William Springer, AB9TA

#### Secretary

Open

#### Treasurer

Dean Holste, KC9EOQ

#### Directors:

Michael Cicchetti, KC9OPV  
Dan Harmon, WA9YKK

#### Past President

Harry Jones, K9DXA

#### License Trustees:

Kermit Carlson, W9XA  
Bob Dillon, WB9LTN

#### Newsletter Editor

Dean Holste, KC9EOQ  
[newsletter@frrl.org](mailto:newsletter@frrl.org)

#### Webmasters

Chris Kennell, KC9BKS  
Neil Potter, KB9RFX  
[webmaster@frrl.org](mailto:webmaster@frrl.org)

Annual dues 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.

Regular dues are \$25.00 a year, Senior Citizen dues are \$15.00. Family dues are \$35.00. Members can help support the FRRL Repeaters by making an annual \$10.00 donation.

## Bill Erikson HF Challenge

By Dawn Williams, KC9LQS

The year is drawing to a close, and although this will be the last mid-month update until the 2015 Challenge begins, there are still several weeks for contenders to add to their logs and increase their scores. As of mid-November, participants continue working the airways, reporting contacts with numerous sought-after entities.

Joe NA9A reported contacts with Andorra, Lord Howe Island, Saudi Arabia, Cote d'Ivoire, Tromelin, Afghanistan, and Cameroon.

New catches for Larry K9ARZ include both Andaman and Nicobar Islands (AS-001 & AS-033), Uganda, East Malaysia, Micronesia, American Samoa, Nigeria, Tromelin Island, Tajikistan, Taiwan, and Wallis Island.

As per tradition, final results for the 2014 HF Challenge will be announced during the FRRL annual awards banquet in January. Those results will be reported in the February ArcOver.

Worksheets for the 2015 HF Challenge will be mailed to all FRRL members, and if you haven't participated in the past (or if you've been away from the Challenge for awhile), this is a great time to get started! The rules will be outlined in the next issue of the ArcOver. If you have questions or need a hand getting started, talk to Joe NA9A during the monthly meeting, or send an email to Challenge [at] frrl.org.

73 de KC9LQS

Limited Class	States	Provinces	DX Countries	Total
Paul KC9UZV	91	13	70	174
Paul KC9SEB	66	10	42	118
John AG9D	45	5	20	70
Eric K9LGE	25	5	4	34

Operator Class	States	Provinces	DX Countries	Total
Jack K9JE	96	19	222	337
Roger W9YU	76	12	116	204
Herb W9DTR	82	15	71	168
Dean KC9EQQ	58	7	100	165
Jason KB9MEL	62	8	72	142
Dan W9STS	59	2	9	70
Bill NF9D	35	2	16	53
Ron KC9SNI	9	1	16	26
Dawn KC9LQS	1	0	2	3

QRO Class	States	Provinces	DX Countries	Total
Larry K9ARZ	100	25	439	564
Joe NA9A	76	7	379	462
Dick AH6EZ/W9	91	13	133	237
Dick AH6EZ/W7	50	13	152	210
Alan W9AN	49	10	135	194
Jim N9XP	19	0	91	110
Robert K9EUI	42	2	49	93

Rag Chewer Class	States	Provinces	DX Countries	Total
Herb W9DTR	24	2	3	29
Paul KC9UZV	13	0	2	15
Dick AH6EZ/W7	6	3	2	11
Joe NA9A	7	0	4	11
Dick AH6EZ/W9	6	0	1	7
Dan W9STS	3	0	1	4

## STUDY QUESTIONS OF THE MONTH

### FROM THE TECHNICIAN POOL

**Q:** T6B09

What are the names of the two electrodes of a diode?

- A. Plus and minus
- B. Source and drain
- C. Anode and cathode
- D. Gate and base

### FROM THE GENERAL POOL

**Q:** G1A01 [97.301(d), 97.303(s)]

On which of the following bands is a General Class license holder granted all amateur frequency privileges?

- A. 60, 20, 17, and 12 meters
- B. 160, 80, 40, and 10 meters
- C. 160, 60, 30, 17, 12, and 10 meters
- D. 160, 30, 17, 15, 12, and 10 meters

### FROM THE EXTRA POOL

**Q:** E6E11

Which of the following materials is likely to provide the highest frequency of operation when used in MMICs?

- A. Silicon
- B. Silicon nitride
- C. Silicon dioxide
- D. Gallium nitride

## OPERATING TIP

Please copy? Please don't! Imagine this pre-Sweepstakes conversation as Elmer prepares to hand off the controls to his protégée:

*"OK, when the clock rolls over to 2100 UTC..."*

*"I know - call CQ, right?"*

*"No, I want you to say "please copy" 500 times in a row."*

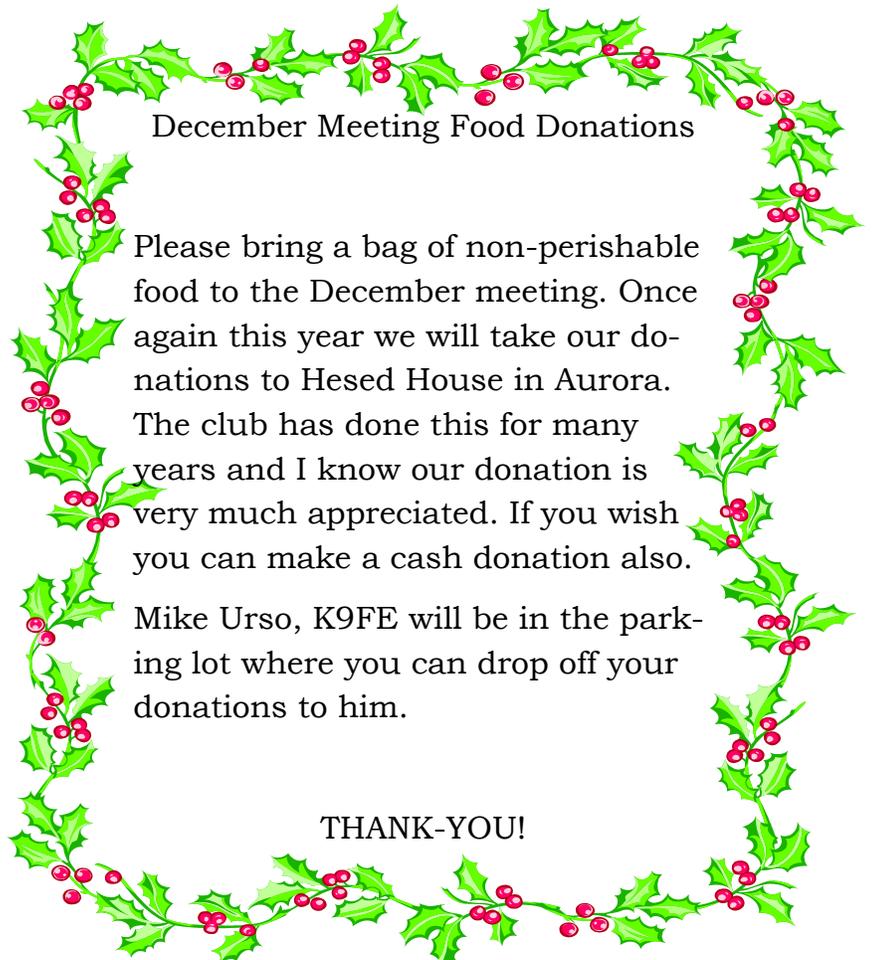
*"What????!!!"*

*"You might as well get it out of your system. Follow it with another 500 of "You are" and 110 leading zeroes. Then you can call CQ."*

*"But that will take a half hour!"*

*"Sure will...but you were going to say it anyway!"*

Unnecessary verbiage slows everything down, whether it's a contest or an emergency communication net. Try to eliminate it from your on the air transmissions. Write down a script to help you say only what you need to say. The editor fesses up to having a weakness for adding in an extra "Thanks" at the beginning of a QSO when one at the end is plenty.



# President's Traffic

Dawn Williams, KC9LQS

I spend a lot of time thinking about gifts this time of year. Naturally, I drop hints to my own personal "Santa," hoping he'll remember I prefer HF, look good in black, love things that sparkle...and somehow find time to hit the mall before Christmas Eve rolls around! But more than that, I put a great deal of effort into choosing the gifts I give. The right gift takes some thought; it has to fit my budget, of course, and beyond that, it has to fit the needs and interests of the recipient. There is nothing like the feeling of seeing a big grin as someone tears into a gift I've chosen for them, and the satisfaction of knowing it will make their life a little easier or bring them pleasure throughout the year.

Not all gifts are tangible or bear a price tag, though, and those are some of the most memorable and lasting gifts of all. Last month, we talked about elmers and their impact on our growth as amateur radio operators. A few people said they flew solo, learning the ropes on their own. But the overwhelming majority of members at the November meeting spoke of individuals in their early ham days – and in some cases, two or three of those knowledgeable individuals – who instructed, guided, and shaped the direction they would take in the hobby.

In this month when giving is foremost on our minds, it seems appropriate to consider what we've been given by those who came before us. Generations of men and women – average people, like you and me – gave their time and knowledge and ideas to their fellow hams, their clubs, and the amateur radio community at large, long before any of us held an FCC license. Their practice of the hobby and contributions to it, often handed from one operator to another, paved the way for the privileges and technologies available to us today.

Even in our own lifetimes, innumerable individuals contribute constantly to our ability to enjoy the hobby. These gifts come not only from our elmers, but from our ham friends, our club, hams worldwide who share their knowledge via websites, blogs, and good, old-fashioned rag chews, and from our national association, ARRL. The hobby we enjoy today is made possible through the gifts of countless people like them, and like you and me, scattered across time and space, all contributing to a common goal. It is quite humbling when you stop and think about it.

And I hope you *will* think about it. Just as our forebears, directly or indirectly, offered gifts that improved the hobby for future hams, each and every one of us must do the same. Some will give in highly visible ways; some will work quietly and tirelessly behind the scenes. Some will teach and write to educate large groups of hams; others will offer their expertise one-on-one to a new operator just starting to learn the ropes. The ethic of elmering is at the heart of amateur radio.

Like the shiny packages beneath your Christmas tree this month, put some thought into the gifts you offer to the radio community. No matter how big or small your contributions, it will undoubtedly make the future better and broader for your fellow hams. Thank you, each of you, for the gifts you bring to FRRL.

I wish you and your families much joy this holiday season, and all good things in the year to come.

73 de KC9LQS

# Free Stuff!

By Dan Romanchik, KB6NU

I'm a sucker for free stuff. Below, you'll find links to a free transistor amplifier design program, a free printed circuit board design program, and a free tutorial on antennas. All of these look to be worth a look.

## TransistorAmp 1.1

This is free software for designing bipolar transistor amplifiers. I found the link to this software (<http://en.transistoramp.de/>) on the AMRAD mailing list. Phil, M1GWZ, who posted the link, says, "A transistor circuit that I'm developing needed a 5x voltage gain stage. I could have thrown in a single op amp with split power rails and all that DIL8 real estate, but a single transistor stage would suffice. Trouble is, I'm an EE by inclination, not training, and all those calculations - working out those capacitor reactance values - well, I don't do them often enough for them to be easy. And I want voltage gain, not current. And then I found Transistor Amp 1.1."

"It's a nice piece of software," says Phil, "It installs easily and did the job for me quickly and easily. Oh, and when I built the circuit for real - voltage gain of 5x!"

[[ NOTE: A screen shot of the software that you can use for the article can be found at <http://www.kb6nu.com/wp-content/uploads/2014/11/specify-common-base-circuit.png.....Dan>]]

## Altium CircuitMaker

CircuitMaker (<http://www.circuitmaker.com>) is a free printed circuit board design tool for hobbyists, people like you and me. Maxfield Parrish of EETimes says, "one key aspect of CircuitMaker is its intuitive and easy-to-use interface -- all of the important "stuff" is presented in an easily accessible manner in a ribbon at the top of the display. Another major consideration is that Altium has decided to make CircuitMaker all about "Community," so users can easily share ideas and designs, comment on designs and offer suggestions for improvement, and generally help each other along the way."

## Free antenna tutorial

For a limited time, Rohde & Schwartz and the IEEE Communications Society are offering a free tutorial on Antenna Basics (<http://www.comsoc.org/form/tutorial-registration-antenna-basics>). This tutorial explains the basic functionality of an antenna, starting with Hertz's antenna model. It also includes a short introduction to the fundamentals of wave propagation, the important general characteristics of an antenna and parameters, such as antenna gain, radiation pattern, bandwidth or VSWR. A more detailed explanation of the functionality of some selected antenna types (e.g. dipole or monopole) is also given.

Maik Reckeweg, Product Manager Antennas, Rohde & Schwarz GmbH, Munich, Germany, who is responsible for all the company's monitoring, measurement and communications antennas is the tutorial's.

The video is kind of dry, but I think Reckeweg does a pretty good job of discussing antenna basics. The video is also accompanied by a white paper that delves into these topics a little more completely. Overall, there's a bit more math than in most amateur radio discussions of antennas, but this makes the discussion a little more comprehensive.

=====

When not scouring the Internet for free stuff, you'll find KB6NU working on updates to his "No Nonsense" study guides, working CW on 40m, or blogging about amateur radio at [www.kb6nu.com](http://www.kb6nu.com).



# December Contest Dates

+ NCCC RTTY Sprint	0145Z-0215Z, Dec 5
+ ARRL 160-Meter Contest	2200Z, Dec 5 to 1600Z, Dec 7
+ TARA RTTY Melee	0000Z-2400Z, Dec 6
+ ARRL EME Contest	0000Z, Dec 6 to 2359Z, Dec 7
+ TOPS Activity Contest	1600Z, Dec 6 to 1559Z, Dec 7
+ Ten-Meter RTTY Contest	0000Z-2400Z, Dec 7
+ SARL Digital Contest	1300Z-1600Z, Dec 7
+ CQC Great Colorado Snowshoe Run	2100Z-2259Z, Dec 7
+ NAQCC CW Sprint	0130Z-0330Z, Dec 10
+ NCCC RTTY Sprint	0145Z-0215Z, Dec 12
+ ARRL 10-Meter Contest	0000Z, Dec 13 to 2400Z, Dec 14
+ NAQCC CW Sprint	0130Z-0330Z, Dec 17
+ NCCC RTTY Sprint	0145Z-0215Z, Dec 19
+ AGB-Party Contest	2100Z-2400Z, Dec 19
+ OK DX RTTY Contest	0000Z-2400Z, Dec 20
+ Croatian CW Contest	1400Z, Dec 20 to 1400Z, Dec 21
+ ARRL Rookie Roundup, CW	1800Z-2359Z, Dec 21
+ Run for the Bacon QRP Contest	0200Z-0400Z, Dec 22
+ DARC Christmas Contest	0830Z-1059Z, Dec 26
+ RAC Winter Contest	0000Z-2359Z, Dec 27
+ Stew Perry Topband Challenge	1500Z, Dec 27 to 1500Z, Dec 28

## UPCOMING EVENTS

### Board of Director's Meeting

December 3, 2014 @7:30pm  
Colonial Café—Aurora, IL

### Membership Meeting

December 9, 2014 @7:30pm  
Bethany Lutheran Church

### VE Testing Session

Jan. 20, 2014 @ 7:30pm  
Messenger Public Library  
North Aurora, IL

Technician Pool- C. Anode and cathode

General Pool- C. 160, 60, 30, 17, 12, and 10 meters

Extra Pool- D. Gallium nitride



**Fox River Radio League**  
**"Established 1924"**  
**An ARRL Special Service Club**  
**W9CEQ PO Box 673 Batavia, IL 60510**

---



**Meeting Minutes November 11, 2014**

The meeting was called to order at 7:34 PM by President Dawn Williams KC9LQS

**Question of the Month – Who was your first elmer, and what one thing did you learn from him/her that shaped the way you operate?**

**Reports**

**Minutes of October 14, 2014 Regular Meeting**

A motion was made and seconded to approve the minutes as published. Motion carried

**Treasurer** – Dean KC9EOQ reported the account balances as of the end of October. He also informed members that he would be accepting renewals for 2015.

**Program** – Dick AH6EZ will present a program on MT63, a digital mode. The program will be presented remotely and transmitted live during the program portion of the meeting.

**Old Business**

**Outreach Efforts** – Dawn KC9LQS reported the board discussed the club's new outreach efforts and determined that the Farmers Market visits were a good public venue and worth revisiting next year.

**New Business**

**Presentation of nominees for 2015 offices** – Tobi K9TCD presented the slate of candidates for 2015. They included: Dawn Williams KC9LQS running for president; Mike Urso K9FE for vice-president; Dean Holste KC9EOQ running for treasurer; Tobi Davis K9TCD running for secretary; and Dave Bulkley K9WDB and Jason Burzynski KB9MEL running for two director seats. There were no nominations from the floor. The motion was made and seconded to accept the slate of candidates and close nominations. Motion carried.

**Announcements**

- Harry, K9DXA announced that banquet tickets are available. The banquet will be January 24.
- VE testing will be November 18, 2014 at the Messenger library in North Aurora.
- December 3, 2014 will be the board of directors meeting.
- December 9, 2014 is the next membership meeting. Election of officers will be held at that meeting.
- Mike K9FE announced that classes would be moving to the Messenger Library in North Aurora and the time will change to 9:00 to 12:00 AM.

**Adjournment**

The motion was made and seconded to adjourn the meeting at 8:28 p.m.. The motion carried.

Respectfully submitted,  
Jack Tofari KD9CPN

# FRRL Winter Banquet - Saturday Jan 24, 2015

The 2014 FRRL Winter Banquet will again be held at St. Charles Place. Tickets go on sale at the November meeting, and will be available at the December, and January FRRL meetings. Contact Harry Jones K9DXA (k9dxa@arrl.net).

## **Date & Location**

The festivities will start at 5:00 PM, Saturday, January 24, 2015 at the St. Charles Place located at 2550 East Main Street (State Route 64) in St. Charles, IL.

## **Menu Entrees & Prices**

There will be a choice of three entrees at our banquet. Prices include tax and gratuity.

Prime Rib of Beef \$49.00 (red ticket)

Norwegian Salmon \$37.00 (blue ticket)

Chicken Marsala \$34.00 (yellow ticket)

Caesar Salad, Traditional Baked Potato with butter and sour cream, Green Beans, and Ice Cream Dessert is included with each.

**\*\* Put name or call sign on your ticket and lay on dinner table \*\***

This reserves your place and tells server which entree to put down.

## **Schedule**

Cash bar 5:00 PM - 9:00 PM

Dinner Served - 6:15 PM

Awards - 7:30 PM

Program Speaker - 8:30 PM

## **Rules of Engagement**

1. Tickets must be purchased in advance - no payment at the door.
2. No complimentary tickets except for Speaker.
3. Outside food or beverages not allowed in restaurant.
4. Blue jeans and camouflage clothing not allowed.
5. Dress code is business casual. Men - conservative sport coat, tie, and slacks.  
Women - slacks or skirt with blouse and/or sweater.

## **Program Speaker**

Carl Luetzelschwab K9LA was licensed in 1961 (WN9AVT), and enjoys propagation, DXing, contesting, playing with antennas, and working on and using vintage equipment. Carl is a graduate of Purdue University, and retired in October 2013. He was an RF design engineer for Motorola and Raytheon (formerly Magnavox).

Carl's presentation is two-fold. First, he will give an update on Solar Cycle 24 and he will review the early predictions for Cycle 25, including a discussion of the possibility of entering another Maunder Minimum.

Second, he will review the historical contributions by Amateur Radio operators to the science of radio. He will then tie this into ways to bring youth into Amateur Radio to turn around the ever-increasing average age of those in our hobby and to invigorate clubs.

## 2014 FRRL Election Slate

Each year at the November meeting of the FRRL membership the election committee selects a slate of officers. The committee is appointed by the president and for 2014 is comprised of: Tobi K9TCD (Chair), Jeff N9JZN, and Chris KC9IEQ.

Please note, although nominations for this election are closed, **at the December meeting write-in candidates are allowed by a member on his or her ballot.**

The elections are very important since the elected candidates will be the leaders of the FRRL and help guide the direction of the club in the upcoming year.

**This year's election committee is happy to announce the candidates for the 2014 elections:**

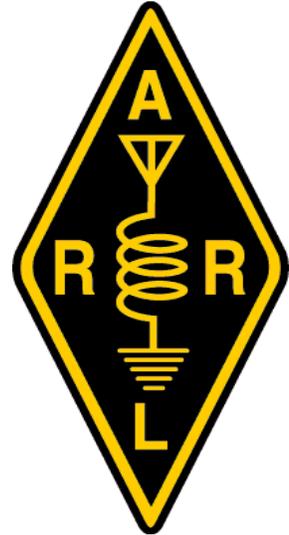
### Slate of Candidates from the election committee

President	KC9LQS	Dawn Williams	Batavia
Vice President	K9FE	Mike Urso	Aurora
Secretary	K9TCD	Tobi Davis	Woodridge
Treasurer	KC9EOQ	Dean Holste	Aurora
Directors (2yr term)	KB9MEL	Jason Burzynski	Huntley
	K9WDB	Dave Bulkley	Batavia

Thank you for allowing us to serve as the election committee for 2014.

## IMPORTANT AMATUER RADIO WEB PAGE LINKS

[www.frrl.org](http://www.frrl.org)  
[www.arrl.org](http://www.arrl.org)  
[www.colpage.org](http://www.colpage.org)  
[www.qrz.com](http://www.qrz.com)  
[www.eham.net](http://www.eham.net)  
[www.twit.tv/hn](http://www.twit.tv/hn)  
[www.dxspots.com](http://www.dxspots.com)



### FRRL Repeaters:

W9CEQ—147.210 MHz +600KHz Offset, 103.5 PL

W9CEQ—444.300 MHz +5 MHz Offset, 114.8 PL (IRLP Node # 4850) (Echolink # 230933)

**FRRL Digital Voice/Data Repeaters:** (Contact Kermit, W9XA for information)

W9CEQ\_\_B D-Star—442.10625 MHz (+ 5.0 MHz offset)

W9CEQ\_\_C D-Star—147.225 MHz (+ 0.6 MHz offset)

### Other Local Area Repeaters:

Owned by Kane County OEM:

KC9OEM—145.470 MHz -600 KHz, 103.5 PL

(2 meter is primary Kane Co. SKYWARN/ARES Frequency)

W9DWP—Kane Co. Amateur Public Svc. Repeaters:

(Both repeaters are dual mode APCO-25 NAC-293)

145.270 -600 KHz 107.2 PL

443.025 +5 MHz 114.8 PL

Local 6 meter: Input: 52.210 Output: 53.910 Carrier Access FM (W9XA 6-meter repeater)

W9ZGP—NIARC:

147.060 +600 KHz, 103.5 PL

### Weekly Nets:

Ten Meter Net: Monday at 8:00pm 28.150 MHz CW

Monday at 8:30pm 28.720 MHz SSB

FRRL 2 Meter Net: Tuesday Evening at 7:30 pm

ARES & Skywarn Net: Wednesday Evening at 6:30 pm on the KC9OEM 2 meter repeater

Illinois DStar Net - Wednesday Eve. at 8:00 pm on the DStar 2 meter repeater