



# Arc Over

Fox River Radio League  
PO Box 673  
Batavia, IL  
60150-0673

October, 2005

---

## President's Traffic

*by Dick Illman, AH6EZ*

At last month's meeting you received a presentation about the Green Bank Radio Telescope. I am sure that W9XA did a good job reading my mind third hand after N9CHA caught a cold. I was in South Carolina doing FCC certification testing of the Motorola BPL solution the whole week. I met with the local BPL action team that is set up by the ARRL and gave them a presentation about our proactive solution. The October meeting will include some guidance, and training about the Illinois QSO Party which is a very friendly HF and VHF contest October 17. I will also have a slide show of my setup and operations at ARRL Headquarters Station W1AW. We have a new public service event the same weekend as the IL QSO Party. It is the Tour de Fox Bike Race put on by the Fox Valley Park District and is being co-chaired by N9TLJ and N9TLK.

We had a recent event on our UHF repeater — a stuck microphone from a ham in Shorewood. It turns out that one of his cats stepped on the locking PTT switch on his FT847 desk microphone while he was away from his house. Because gas for long distance transmitter hunts is expensive, and because it is also an FCC rule, please disable your transmitters in some fashion when you are out of your shack so that this does not happen in the future. At least program all of your equipment with time-out timers.

Our nominating committee, W9XA, K9JE, and K9EUI are looking for candidates for President, Vice President, Secretary, Treasurer, and two Directors. If you want to be nominated and contribute to the operations of our club, please contact them. According to our by-laws, they will be announcing the slate at the November meeting in preparation for the December election.

Now that the leaves are falling again, I hope that you are putting the finishing touches on your antenna projects before the snow flies. Even though the HF conditions can be challenging, there is some hope that we are on the upswing of the next solar cycle about 9 months early. Have fun with the Fall Contesting calendar, including the Illinois QSO Party. Check out their web site at <http://my.core.com/~jematz/ilqp/ilqphome.htm>

73—see you at the meeting,

Dick Illman, AH6EZ  
FRRL President

## **Erickson HF Challenge Update**

By John Spasojevich, K9COE

---

Mike, K9FE, has passed the baton (or is that the spreadsheet?) of the Bill Erickson HF Challenge over to me to keep it updated and to pass along any tales of exotic DX worked during the solar doldrums. As most of you know, Mike has a very busy work schedule so to help him keep what sanity he has left I offered to help out. Please look over your scores and continue to send in your reports as you have done before to the same e-mail address at [challenge@frri.org](mailto:challenge@frri.org). Mike has done an outstanding job; please join me in thanking him for his time and effort.

Looking at the scores, there are some real tight battles. In the QRO Class where participants are allowed any power level up to the legal limit it's anybody's race. Dick, AH6EZ, is in the lead by 10 points over Gary, AL9A, and Joe, NA9A, is only 5 points from second place and 16 from the lead! Looking at their DX counts it's obvious that there are still some DX stations out there in the bottom of the cycle, but they are just harder to come by.

The Operator Class looks like a three way race with Jack, K9JE, leading by 3 points over Maurice and a two way tie for third place between K9MMS and W9DTR. Mike, K9FBI, isn't too far behind! In the Limited Class Bill, KB9YSI, operating QRP is well in the lead over yours truly, K9COE, who is working PSK. Last but not least the Ragchew Class looks like it might be wrapped up by AL9A with the battle being for second and third place between AH6EZ, NA9A and K9COE.

Some DX Stations worked this period are: J2- Djibouti and VK9/W-Willis Island. Both, by the way, are on the "DXCC Most Needed Entities List.

*Scores are on Page 5.*

---

## **Amateur Radio Emergency Communication Volunteers Still Needed!**

By Bill Muhr, KB9YSI

---

Amateurs who wish to assist in the Rita Relief effort should register via the Hurricane Rita Disaster Communications Volunteer Registration & Message Traffic Database, <http://rita.ab2m.net>, and await instructions.

Working in cooperation with the ARRL, <http://katrina.ab2m.net> will now be handling all volunteer sign ups for the Katrina Relief effort. If you have already entered your information via [Katrina@arrl.org](mailto:Katrina@arrl.org), your information will be forwarded to AB2M to avoid duplication. [Katrina@arrl.org](mailto:Katrina@arrl.org) should be used for all other inquiries to the ARRL regarding Hurricane Katrina.

## Two Finger Poi

By Dick Illman, AH6EZ

OK, I know you are thinking, what does Poi have to do with ham radio. Well, it can be the hand position and consistency of paste when you are grinding crystals. I had not done that for 36 years, but considering I got an old Heathkit DX-40 transmitter at Dayton this year which I wanted to put on the Monday night 28.150 CW net with a stable signal, a crystal was the only way to go. Back when I was a Novice and VFOs were not allowed, my whole experience with ham radio was controlled by crystals. I remember finding a box of 100 surplus crystals on 6770 KHz. Useless in the ham band, unless you make them thinner so they oscillate at a higher frequency. I remember teaching myself how to do this and I got pretty good at it. I had crystals spread across the 40m band so that when I got my General license and operated AM with the DX-40, I could usually be zero beat with the new fangled SSB stations.

Well how do you do it anyway? The first thing you need is FT243 crystals that are below the frequency you want. You can't take an 8 MHz crystal and move it down to 40m. You next get a piece of glass or other very flat and waterproof surface. I remember using an Ajax cleanser slurry and sometimes tooth paste back in 1969 but I did not have any coarse cleanser in the house except "Soft Scrub" products. I tried that and pumice hand cleaner but the process was way too slow. They have lanolin in them which is a lubricant.

The whole idea is to keep the flat sides of the crystal parallel. If you mess up, the crystal starts getting slow to oscillate or does not oscillate at all. If that happens, any corrective action is really a crap shoot because you will not know what is thicker and needs to be ground further. My technique is to place clean fingers on opposite corners of the crystal and make a given number of figure 8s and then switch corners and do the same number of figure 8s. In general you should not need to grind the center of the crystal but it can be necessary if you can't get it to oscillate. Grinding in the center seems to have a rapid effect on the frequency change and can cause you to overshoot the desired frequency at the last moment. I tried a Bonami cleanser slurry with poor results. Just not enough abrasion. I also had a problem where the crystal would stop and my fingers would keep going. I ended up with a small cut on my preferred index finger so that I did the rest of the grinding with my less coordinated right hand.

Here is what worked for me this time. I found some 1200 grit sand paper and after a few hundred figure 8s, I had moved from 6900 to about 6905. Progress but still too slow. I switched to 220 grit and started to make progress. I was working pretty quickly and did end up with a small blister on one finger. I found that keeping consistent pressure throughout the process was useful to help predict how far I was going to shift the frequency. Another variable to control was the section of sand paper that gradually wore out in the middle and was rougher on the edge. I did not keep a full count of the number of figure 8s in total but I would estimate that I did perhaps 1000 grindings over perhaps 30 assemblies and disassemblies of the FT243 crystal. The final adjustment was just 2 figure 8s and a nice tone on 28.150. Overall it took me about 2 hours from start to finish, including the experimentation. The next time you see a box of surplus crystals outside of the ham bands for almost nothing, think about what you can use them for in that old rig or homebrew rig. Buy several so that you can experiment. That's what ham radio is all about, learning by doing. If you don't know what two finger or three finger Poi is, just ask.

## **ARRL ANNOUNCES 2005 TOY DRIVE FOR HURRICANE VICTIMS**

*From the ARRL Letter*

In the wake of unprecedented hurricane devastation in the Gulf Coast region, the ARRL has announced it will again sponsor a toy drive to brighten the holidays for youngsters left homeless or displaced as a result of the storms. Country singer and ARRL member Patty Loveless, KD4WUJ, has agreed to serve as honorary chairperson for the 2005 toy drive. ARRL President Jim Haynie, W5JBP, is urging the Amateur Radio community to pitch in.

"Last year, hams from all over the country brought smiles to children during the holidays," Haynie said. "We made a lot of friends, and we did a lot of good. No one expected that we would need to do it again so soon, but the recent hurricanes' destruction changed the plans of a lot of people."

Last year, individual radio amateurs and clubs across the US joined together to collect new toys for youngsters affected by a series of four hurricanes in Florida. ARRL Media and Public Relations Manager Allen Pitts, W1AGP, says the 2004 effort was a success beyond anyone's wildest dreams, and there was no question in his mind about doing another toy drive for the latest hurricane victims.

"Not only can it be done, it really must be done. It is simply the right thing to do," he said. "We are asking hams from all over the country to begin gathering new toys for shipment to Memphis, Tennessee. ARRL Delta Division Vice Director Henry Leggette, WD4Q, has secured a receiving warehouse and is recruiting ham volunteers there."

Ham radio clubs and individual amateurs should send new, unwrapped toys for boys and girls aged 1 to 14 to ARRL Toy Drive, 1775 Moriah Woods Blvd--Suite 12, Memphis, TN 38117-7125. Plan mailings and shipments to arrive prior to Thanksgiving, Thursday, November 24, for distribution over the holidays.

"Just as we did last year, we are asking the donors to please put a QSL card into the box with the toy," Pitts added. Non-hams are encouraged to join this effort too.

"Early in December, we will divide the toys among the various agencies and states that need help the most at that point in time," Pitts explained. "We are making these arrangements so that we can maximize the areas receiving aid while maintaining the unique identity that this is the Amateur Radio Community's response."

Pitts says he's heard from many Amateur Radio clubs that are already gathering toys together. "Please check with your local club and see if they are planning a mass shipment," he urged. "If not, perhaps you can help organize one for your area."

Monetary donations to purchase new toys for special age groups and to help cover operational expenses also are welcome. Those wishing to donate money instead of toys can send a check to ARRL Toy Drive, ARRL, 225 Main St, Newington, CT 06111.

## Bill Erickson HF Challenge Scores

Here are the latest standings received for the HF Challenge, as of September 15. Remember to email your updates to [challenge@frri.org](mailto:challenge@frri.org) by the 15th of each month.

Ragchew Class	States/Provinces	DX Countries	Total
AL9A	-	-	43
AH6EZ	-	-	16
NA9A	-	-	16
K9COE	-	-	15
W9DTR			7
K9FE	-	-	1

Operator Class	States/ Provinces	DX Countries	Total
K9JE	46/10	115	171
W4CEO	48/7	113	168
K9MMS	50/10	79	139
W9DTR	40/8	91	139
K9FBI	43/5	42	90

Limited Class	States/ Provinces	DX Countries	Total
KB9YSI	41/3	32	76
K9COE	14/1	6	21

QRO Class	States/ Provinces	DX Countries	Total
AH6EZ	50/12	155	217
AL9A	50/12	145	207
NA9A	32/3	166	201
WOHED	50/7	77	134
K9FE	15/0	4	19

## FRRL Club Nets

The regular weekly FRRL 2 Meter Net takes place every Tuesday evening at 7:30 pm local time, except on meeting nights, on the W9CEQ repeater, 147.210 MHz. +600 KHz, 103.5 access tone. The Next Gen Hams Nets take place on the 2nd and 4th Wednesday evenings of each month at 8:00 pm local time on the NIARC repeater, W9ZGP—146.580 MHz., +1.08 MHz. (147.660).

## Seeking WWII and Korean War Radio Operators

The K9YA Telegraph Newsletter seeks to record the wartime experiences of WWII and Korean War radio operators, both military and civilian.

The Robert F. Heytow Memorial Radio Club recognizes and honors the gallantry of those men and women who courageously served their country at war and who contributed mightily to the Allied victory.

Collected stories will be archived and available at the K9YA Web site and selected stories will be printed in the K9YA Telegraph newsletter. If you are a WWII or Korean War radio operator or the relative of a veteran operator and you wish to share your wartime experience with a worldwide amateur radio community, please forward your story with appropriate photographs to [telegraph@k9ya.org](mailto:telegraph@k9ya.org).

The K9YA Telegraph especially seeks the stories of radio operators who were hams before the war and those who became hams following their wartime service.

---

### Solar Flux

*By Bill Muhr, KB9YSI*

I managed to miss the September meeting, but I will be available at this month's gathering for all of you that have updates to your email addresses or want to offer suggestions and ideas for the ArcOver. Of course, you can do either of those things any time, simply by firing up your email program or picking up the telephone.

If you are a Yahoo member, you can also try and send me an instant message via Yahoo Messenger. My email/IM address there is [kb9ysi@yahoo.com](mailto:kb9ysi@yahoo.com).

I plan to be active in the Illinois QSO Party. If you'd like to work a CW station that will slow down for you, please listen for me. (I'll be running 5 watts or less, so you will probably have to listen carefully.) I suspect I'll also be listening on 2 meter FM simplex, so please can try calling me on 146.400.

As usual, the deadline for submitting articles to the ArcOver will be the 20th of the month. This month a special thanks goes out to John, K9COE, for taking over the HF Challenge record keeping chores.

73 for now,  
Bill, KB9YSI

## 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©(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 the Prisco Community Center in Aurora, Illinois. The meeting begins at 7:30 PM. After conducting business, coffee and

snacks are served while we socialize. Following the break, a program of interest will be presented. All persons interested in amateur radio are invited to attend. Families are welcome. *We hope to see you there!*



## License Exams

The Fox River Radio League, Inc., in conjunction with the ARRL VEC, conducts amateur examinations on the 3rd Tuesday of January, March, May, September and November in the basement of the Prisco Community Center, 150 W. Illinois Street, (South East corner of Lake and Illinois) in Aurora, IL. at 7:30 PM. No advance registration is required, but please be sure to

bring your license (if you have one) and a photocopy of it, original CSCES and a photocopy (if needed), some form of photo identification, and the fee of \$14.00. (The FRRL receives no portion of this fee.)

The next exam session is scheduled for November 15, 2005, at the Prisco Community Center in Aurora, IL. At 7:30 pm

## FRRL Dues

Annual dues are payable no later than the January Club Meeting each year. Persons joining during the year will have their first year's dues prorated to the nearest yearly quarter.

Regular dues are \$20.00 a year, Senior Citizen dues are \$12.00. Family dues are \$30.00. You can also help support the FRRL Repeaters by joining as a combined Club/ Repeater member for \$30.00. Repeater dues are \$20.00.

Check with the Treasurer for details and additional dues rates.

## Nets

Net Name	Freq.	Day	Time
FRRL	147.210	Tuesday	7:30 PM Local
10-10 CW	28.150	Monday	8:00 PM Local
10-10 SSB	28.720	Monday	8:30 PM Local

**FRRL CLUB MEETINGS ARE HELD AT THE PRISCO COMMUNITY CENTER AT 150 WEST ILLINOIS STREET IN AURORA. PLEASE CHECK THE FRRL WEB SITE FOR A MAP TO THE MEETING LOCATION .**  
<http://www.frri.org>

## Fox River Radio League

Founded 1924

### Mailing Address:

Box 673  
Batavia, Illinois  
60510-0673

### Email:

[mail@frri.org](mailto:mail@frri.org)

### Web Site:

<http://www.frri.org>

### President

Dick Illman, AH6EZ

### Vice President

Kermit Carlson, W9XA

### Secretary

John Spasojevich, K9COE

### Treasurer

Larry Shaw, W9OKI

### Directors:

Denny Barfuss, W9HI

Greg Braun, N9CHA

Jack Ekstrom, K9JE

Bob Roehrig, K9EUI

### Past President

Bill Schaben, W9AX

### License Trustees:

Kermit Carlson, W9XA  
Bob Dillon

### Newsletter Editor

Bill Muhr, KB9YSI  
[arcover@frri.org](mailto:arcover@frri.org)

### Webmaster

Tom Davis, WB9CHY  
[webmaster@frri.org](mailto:webmaster@frri.org)

Send Address Corrections to:  
 Fox River Radio League, Inc.  
 40W981 Bridle Creek Drive  
 St Charles, , Illinois  
 60175

## FRRL Event Calendar

### October, 2005

FRRL Board Meeting ..... 4  
 FRRL Meeting ..... 11  
 Next Gen Net ..... 10  
 Illinois QSO Party ..... 16  
 Next Gen Net ..... 24

### November, 2005

FRRL Board Meeting ..... 1  
 FRRL Meeting ..... 8  
 VE Testing ..... 15

## Handy Web Site Links

<b>FRRL Web Site</b>	<b><a href="http://www.frri.org/">http://www.frri.org/</a></b>
ARRL Main Site	<a href="http://www.arrl.org/">http://www.arrl.org/</a>
ARRL Central Div. Site	<a href="http://www.central.arrl.org/">http://www.central.arrl.org/</a>
ARRL IL Section Site	<a href="http://www.central.arrl.org/illinois.html">http://www.central.arrl.org/illinois.html</a>
ARRL IL Section News	<a href="http://www.arrl.org/sections/?sect=IL">http://www.arrl.org/sections/?sect=IL</a>
ARRL Contest Page	<a href="http://www.arrl.org/contests/">http://www.arrl.org/contests/</a>
Contest Calendar	<a href="http://www.hornucopia.com/contestcal/">http://www.hornucopia.com/contestcal/</a>
Callsign Lookup (QRZ)	<a href="http://www.qrz.com/">http://www.qrz.com/</a>
Vanity Callsign Info	<a href="http://www.vanityhq.com/">http://www.vanityhq.com/</a>
IRLP Main Page	<a href="http://www.irlp.net/">http://www.irlp.net/</a>
AMSAT	<a href="http://www.amsat.org/">http://www.amsat.org/</a>
FCC Services	<a href="http://wireless.fcc.gov/services/amateur">http://wireless.fcc.gov/services/amateur</a>
SMC Contest Club	<a href="http://www.w9smc.com/">http://www.w9smc.com/</a>

## ArcOver FRRL Newsletter

*Copyright 2005, 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 six days prior to the end of the previous month. Articles can be sent by email to [arcover@frri.org](mailto:arcover@frri.org) or via U.S. Mail. 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.

## Local Area Repeaters

**W9CEQ—147.210 Mhz. \***  
 +600 KHz, 103.5 access tone  
 Owned by FRRL

**W9CEQ—444.300 Mhz. IRLP Node # 4850**  
 +5 Mhz, 114.8 access tone  
 Owned by FRRL

**W9ZGP—146.580 Mhz. \*\***  
 +1.08 Mhz (147.660)  
 Owned by NIARC

**KC9OEM—145.470 Mhz.**  
 -600 KHz, 103.5 access tone  
 Owned by Kane County OEM

**W9XA — 224.40 Mhz, +5 Mhz, IRLP Node #4846**  
 — **443.65 Mhz, +5 Mhz**  
 — **1292.00 Mhz, -20 Mhz (1272.00)**

- Weekly FRRL Net—Tues. Eve. at 7:30 pm local time.
- Next Gen Youth Ham Net—2nd and 4th Tuesdays of each month.