



# Arc Over

Fox River Radio  
League  
PO Box 673  
Batavia, IL  
60510-0673

December, 2010

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## President's Traffic

By John Spasojevich AG9D

As I write this, the temperature is still in the low 50's. Maybe there is something to this global warming thing! The longer the cold and snow hold off, the closer to spring it gets. You can take that to mean I'm not a big fan of winter. Hmm...maybe that's why my antenna doesn't work too well, I put it up in the warm sunshine.

December is election time in the FRRL and the Nominating Committee presented the slate of candidates which were approved by the membership at the November meeting. The candidates are: President – John AG9D, Vice President – Harry K9DXA, Treasurer – Dean KC9EO, Secretary – Ron KC9SNI, Director – Dick AH6EZ, Dawn KC9LQS, Gary K9MMS, Neil N9RFX and Adam KC9ITG. Voting is done by written ballot at the December meeting or send in your absentee ballots per the club bylaws.

We will hold our annual food drive during the December meeting, please bring some non-perishable food items which will be donated to the Hesus House. Dean is ready and waiting for your membership renewal. If you have not renewed your membership please try and do so by the January membership meeting. After you do that, see Mike K9FE to get your ticket to the January Awards Banquet. Tickets are \$28 each which is a savings over the last couple of years. This is a nice family evening and we hope to see you there.

As you know space communications is a particular interest of mine which we shared with the engineering model of ARISSat-1 at the October meeting. The 'bird' should be arriving in Russia shortly on schedule for a February deployment from the International Space Station. The ARISS program is running along smoothly, continuing to make scheduled school contacts. We will be in a stand down during December as there will be no U.S. licensed astronaut aboard for the first time. Contacts will resume in January when the next U.S. Astronauts get aboard. As most of you know, I am what is known as a "school mentor" helping schools work their way through to their goal of making contact. It's a fairly rarified atmosphere with just 10 of us world wide. In November I relieved Graham Lawton, G7EVY as the Audio Distribution Coordinator, supervising a crew of one, me! I join the telebridge phone line to Echolink and IRLP as well as record the contacts to the AMSAT server. This also extends to working with local hams doing direct contacts to get audio via phone line or internet to distribute and archive when possible. It's an interesting job especially when it's 2AM here and the contact is in Germany where it's 9AM, the ground station is in Australia where it's 5PM and the moderator for the contact is in Canada where it's 11PM the day before. Thank goodness for UTC! If you have D-Star equipment, the University of Liege, Belgium is building and preparing to launch "OUFTI-1" which will be the world's first D-Star Satellite. Google OUFTI-1 for more information.

Congratulations to all of the new and newly upgraded hams from the November VE session. It's good to see so many at a test session and to see so many attain their goals of getting that license for the first time or upgrading to General or Extra. While I was in the hall, one of the guys thanked me, really thanked the club, for putting on such a good class. While that is well deserved, Eric and his crew put on a series of excellent classes; I reminded him that the real thanks go to him for dedicating the time to come to the class and making the personal effort to get the job done. We can hold all the classes we want, but unless we make the

*(Continued on page 3)*

**Minutes of the Regular Meeting of the General Membership of the  
Fox River Radio League (FRRL) an Illinois not-for-profit Corporation  
Held at St. Rita of Cascia, Aurora, IL**

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Meeting Minutes Nov. 9, 2010.

Meeting called to order at 7:43 PM by John Spasojevich – President with 50 members present.

- John AG9D welcomed all to the November meeting. Question of the meeting was “Did you have storm damage on Oct. 26, 2010?”
- **Secretary Report:** Harry K9DXA– meeting minutes available on Web and Arc Over. Motion to accept by Randolph W9HE, 2<sup>nd</sup> by Eric AB9OS. Minutes accepted.
- **Treasurers Report:** Dean KC9EOQ provided the report
- **Announcements – John AG9D**
  - Benny, W9CZA SK
  - ARISSAT is being made ready for launch.
  - Refurbished HT's to be reinstated
  - Your attention is called to the member displays set up near the back of the room
  - The Board of Directors visited Scitech in Aurora. Further discussions are planned for a possible service project. The President also asked who might be interested in periodically operating a station at that facility.
  - Possible service project at Geneva Historical Society for Morse code display.
  - Please sign card for Benny's family
  - CQWE contest this weekend
  - Ham of the year award to be voted at December meeting, presented at Annual Banquet
  - The club did well at Field Day
  - SDR SIG to meet Nov. 20. Linux SIG restart delayed.
  - Membership renewal activity tonight.

**Committee Reports**

- **Program:** Dick AH6EZ: Stump the Experts.
- **Repeaters:** Dick AH6EZ – Announced that the 2m & D-Star repeaters were moved from the Nova site. The 440 repeater is at Kermit's W9XA.
- **VE Session:** Doug W9RD –Next session 3<sup>rd</sup> Tuesday of November at St. Rita.
- **Membership:** Chris KC9BKS we currently have 197 members.
- **Net Control:** Dawn KC9LQS – Additional net control operators needed. Scripts, etc. will be provided.
- **Education:** Eric AB9OS – Last class this coming Saturday.
- **Newsletter –** Tobi K9TCD – Deadline for article is the 20<sup>th</sup> of the month.
- **Nominating committee report -** Chair Larry K9ARZ, Member Ken N9WCX, Member Pat N9TBD – The nominations proposed are: Pres. - John Spasojevich AG9D, Vice President - Harry Jones K9DXA, Secretary - Ron Jahr KC9SNI, Treasurer – Dean KC9EOQ, Director (two seats open – five proposed nominees): Gary Hornbuckle K9MMS, Dick Illman AH6EZ, Neil Potter KB9RFX, Adam Smuczerowicz KC9ITG, Dawn Williams KC9LQS  
Motion that nominations be closed, Kermit W9XA, 2<sup>nd</sup> by Marty N9NTM. Motion passed.  
Motion that nominations be accepted, Ken N9WCX, 2<sup>nd</sup> by Bill NF9D. Motion passed.

**Member Announcements**

- K9FE – Banquet tickets are available at the General meeting tonight. It will be held at the Omega restaurant, Rt. 59 and I-88, on 1/22/2011. Tickets will be 28.00 per person. Cash bar, soda free.
- K9DXA – Another year's supply of old QSTs available at the table.
- K9FE – Annual Food Donation: Bring a bag of non perishable food items to the December meeting. They will be delivered to a local benefit.

**New Business**

The President asked who might be interested in periodically operating a station in the Aurora area.

The December 7, 2010 board meeting will be at St. Rita of Cascia in Aurora, IL.

The December 14, 2010 General meeting will be at St. Rita of Cascia in Aurora, IL.

The January 4, 2011 board meeting will be at St. Rita of Cascia in Aurora, IL.

The January 11, 2011 General meeting will be at St. Rita of Cascia in Aurora, IL.

Motion to adjourn by Ken N9WCX, 2<sup>nd</sup> by Eric AB9OS. Meeting adjourned 8:25 PM.

Respectfully Submitted:

Harry Jones K9DXA  
FRRL Vice President

## December Program Notes

The December program will be the annual election of officers and holiday party. Please remember to bring a non-perishable food item for donation to a local organization that feeds the needy. If you want your voice to count in the election, please come to vote and enjoy the camaraderie that the December gathering always brings.

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## Silent Keys

The club lost two members recently, Benny W9CZA and Richard W9DDX. They and their families will be in our thoughts. It is never easy to lose people that we share an interest with, but we know that their legacy lives on every time we press the button on a microphone or hold down a key.

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*President's Traffic (Continued from page 1)*

commitment, we can't achieve the goal. So thanks again to everyone involved in the classes and special thanks to you, the students. To those who were not successful, I say this: KEEP AT IT, DON'T GIVE UP. You have the best resource in the world: the membership of the FRRL, we're here to help.

On a sad note, as most of you know by now, we lost a member, fellow ham and good friend: Benny W9CZA in late October. It had been about two years since he was at a meeting although he was heard on one of the first nets Dawn ran, in a way passing the torch to the next generation of net controls. Benny ran the weekly net for many, many years. I first met Benny at Field Day in 2001. He was running PSK on 20 meters. I wasn't very active in the club then and had never been to Field Day. I heard all the buzz on the repeater so I came out and didn't do much other than walk around and watch. I came back very early in the morning and saw his station unmanned. So I took the chance and jumped into the seat. I was on a pretty good run when I sensed someone standing behind me. It was Benny. I stopped operating, started to get up as he pulled the log sheet (he logged on paper and later transferred to the computer) from the table. I was just about to apologize for taking over, I should have asked him earlier if it was ok, but before I could say anything, he said, "You made all these contacts?" I said, "Uh..Yes" He looked at me, cracked a smile and said, "No, you sit back down and get going there fella" He was a class act and I will miss him.

The Holidays are fast approaching, it's a time of joy for most and for some a time of sadness, perhaps a loved one was lost, or money is tight. A ham better known and far wiser than I said to me "if nothing else we are a family" we share in our sadness and in our joy. Whatever your circumstance I wish you the strength to get through and to see the good times ahead.

Merry Christmas, Happy Hanukah, Joyous Kwanza and The Very Best Wishes for a Happy New Year!

## Bill Erickson HF Challenge Update – Mid-November 2010

By Eric Needles AB9OS

Another year has flown by and I'm happy to report a new high water mark for participants in the HF Challenge. Several new entries, plus a few who had been MIA, helped to make 2010 an exciting year. Especially noteworthy is all of the activity in the Ragchew category.

With the changes in DXCC entities I'm sure there will be plenty more contacts added before the end of the year. Speaking of new contacts, Joe NA9A reports "I did work one asterisk country: 5V7TT, Togo on 10/18." Joe adds "my new rag chew was my first JT65-HF contact. I'm not sure that should count as a rag chew because it took ten minutes to make a barebones, no hands, exchange." Way to hang in there, Joe. Dawn KC9LQS reports "I beat my score from last year—and still 6 weeks left in the year! It's nice to see some improvement." Well done, Dawn. And finally, Herb W9DTR tells us "some new contacts for me in the last two months: Namibia, Sudan, Saudi Arabia, Bolivia, Taiwan, Philippines, Yukon, Guernsey, Sierra Leon & Togo. Nice work, Herb.

This is the last update of the year so remember that your final HF Challenge sheets need to be completed and postmarked on or before January 15, 2011. Send your entries to: Joe NA9A, P.O. Box 1383, St. Charles, IL 60174-7383.

And now for the numbers...

Operator Class	States	Provinces	DX Countries	Total
W9DTR	50	11	118	179
N9YA	50	11	70	131
K9TCD	48	9	64	121
W9IV	38	9	71	118
KC9LQS	43	9	64	116
N5EP	42	8	59	109
K9IH	38	11	56	105
WB9CHY	45	5	52	102
KC9EOQ	38	13	49	100
KC9ITG	9	0	2	11

QRO Class	States	Provinces	DX Countries	Total
AH6EZ	50	13	210	273
K9JE	49	12	182	243
KC9DAO	48	8	107	163
N9JZN	32	4	65	101
NA9A	17	3	65	85

Limited Class	States	Provinces	DX Countries	Total
K9BQL-CW	42	11	158	211
K9MMS-CW	50	11	114	175
K9ARZ-Digital	50	9	107	166
AB9OS-CW	38	3	57	98
NF9D-QRP	21	2	41	64
K9LGE-Digital	12	1	8	21

Ragchewer Class	States/Prov.	DX Countries	Total
N5EP	37/7	23	67
W9DTR	28/7	18	53
AH6EZ			44
K9IH			29
N9YA	16	3	19
NA9A	11	2	13
K9LGE			11
AB9OS	8		8
K9JE	1	2	3

## 468: Ham Radio's Magic Number

By Dan Romanchik, KB6NU

Here in the U.S.—where we still measure length in feet—468 is a magic number. Why? Well, the formula for calculating the length, in feet, of a half-wave dipole antenna is:

$$L \text{ (ft)} = 468 / f \text{ (MHz)}$$

If you do the math, a half-wavelength is actually  $492/f$ , so where did the number 468 come from? The explanation most often given these days is that a radio wave travels about 5% slower in wire than it does in free space, so the distance that a radio wave would travel in a wire is about 5% less than it would travel in free space. Now, I don't know about you, but while I've used this formula for building dipoles, I've never had one tune up perfectly using that number. There are a number of reasons for this, the main one being the height above ground of the dipole. What I've found is that the elements of the dipole are usually longer than they need to be.

I sometimes joke that whoever came up with that number did so that hams wouldn't cut their dipoles too short. After all, it's much easier to make a length of wire shorter than it is to make it longer.

## 2011 Officer Slate for Upcoming Election on December 14, 2010

The following are the FRRL club members running for office for the 2011 year. There are two director positions open, therefore members will vote for two of the directors listed below. There will also be provisions for write-in votes for any of the elected positions.

President: John Spasojevich AG9D  
Vice President: Harry Jones K9DXA  
Secretary: Ron Jahr KC9SNI (Ex-K9VQA)  
Treasurer: Dean Holste KC9EOQ  
Director: Gary Hornbuckle K9MMS  
Director: Dick Ilman AH6EZ  
Director: Neil Potter KB9RFX  
Director: Adam Smuczerowi KC9ITG  
Director: Dawn Williams KC9LQS

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### Articles of Interest

submitted by Roger Hancock KD1FY

“Here is an interesting (and GRIPPING) video clip about climbing antennas on the top of buildings such as the Sears (err, Willis) Tower.”

[http://blog.makezine.com/archive/2010/09/climbing\\_up\\_a\\_1700\\_foot\\_antenna\\_tow.html](http://blog.makezine.com/archive/2010/09/climbing_up_a_1700_foot_antenna_tow.html)

“Steve G0KYA and Alan G3NYK, of the Radio Society of Great Britain's RSGB) Propagation Studies Committee, have released a free ebook called 'Understanding LF and HF Propagation'. Here is the link to download the 1mb pdf document.”

[http://www.infotechcomms.co.uk/Understanding\\_LF\\_and\\_HF\\_propagation.pdf](http://www.infotechcomms.co.uk/Understanding_LF_and_HF_propagation.pdf)

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*468: Ham Radio's Magic Number (Continued from page 5)*

Ward, N0AX, wasn't satisfied with any of the common answers to where the number 468 came from. In the latest issue of QST, he consulted the materials in the ARRL library and found the answer.

The October 1926 issue of QST included an article titled, —The Length of the Hertz Antenna. (—Hertz antennall was the name most commonly used for a dipole in the early days of radio.) The author of that article constructed nine different dipoles and measured their resonant frequencies. He then calculated a value, K, by which you'd multiply the wavelength to get the wire length. If you multiply that number by 300, you'd get values ranging from 423 to 471. The number 468 first appeared in the 1929 ARRL Handbook.

For this article, N0AX did a number of simulations of a 20m dipole at various heights, ranging from 1/8 wavelength to 2 wavelengths. He came up with numbers ranging from 466.4 to 483.4. This is somewhat at odds with my experience, although I must admit that I've never been able to get my dipoles up that high. That's my guess for why my dipoles are almost always shorter than 468/f. At any rate, this article is certainly worth reading.

*This article appeared in the September 2010 issue of The Radio Hill Gazette. The Radio Hill Gazette is the official publication of the Schaumburg Amateur Radio Club which can be found at <http://n9rjv.org>. The author's website can be found at [www.kb6nu.com](http://www.kb6nu.com).*

## 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 St. Rita of Cascia Church in Aurora. The meeting begins at 7:30 PM and includes social time,

a business portion and a program of interest.

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 at St. Rita of Cascia Church in Aurora at 7:30 PM. A special session is held at the club's hamfest, usually in July each year. No advance registration is required, but please be sure to bring your license (if you have one) and a photocopy

of it, some form of photo identification and the fee of \$15.00. (The FRRL receives no portion of this fee.)

**The next exam session is scheduled for January 18, 2011 at St. Rita of Cascia church. Please see the [frri.org](http://www.frri.org) website for details.**

## FRRL Dues

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 \$20.00 a year, Senior Citizen dues are \$12.00. Family dues are \$30.00. Members can help support the FRRL Repeaters by making an annual \$10.00 donation.

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

## Fox River Radio League

Founded 1924

### Mailing Address:

Box 673  
Batavia, Illinois  
60510-0673

### Email:

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

### Web Site:

<http://www.frri.org>

### President

John Spasojevich AG9D

### Vice President

Harry Jones, K9DXA

### Secretary

Bill Stamps, W9WRS

### Treasurer

Dean Holste, KC9EOQ

### Directors:

Chris Farley, KC9IEQ

Dick Illman, AH6EZ

Larry Shaw, W9OKI

Larry Stark, K9ARZ

### Past President

Mike Urso, K9FE

### License Trustees:

Kermit Carlson, W9XA  
Bob Dillon, WB9LTN

### Newsletter Editor

Tobi Davis, K9TCD  
[newsletter@frri.org](mailto:newsletter@frri.org)

### Webmaster

Greg Braun, N9CHA  
[webmaster@frri.org](mailto:webmaster@frri.org)



**FRRL CLUB MEETINGS ARE HELD AT ST. RITA OF CASCIA IN AURORA, IL, BUT LOCATION IS SUBJECT TO CHANGE. PLEASE CHECK THE FRRL WEB SITE FOR THE ADDRESS AND A MAP TO THE MEETING LOCATION.**  
<http://www.frri.org>

Send Address Corrections to:  
Fox River Radio League, Inc.  
3023 Scenicwood Lane.  
Woodridge, IL 60517

### FRRL Event Calendar

#### December, 2010

FRRL Board Meeting ..... 7  
FRRL Meeting ..... 14

#### January, 2011

FRRL Board Meeting ..... 4  
FRRL Meeting ..... 11  
VE Session ..... 18  
FRRL Banquet ..... 22

### ArcOver FRRL Newsletter

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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 20th day of each month for the next month's newsletter. Articles can be sent by email to [arc-over@frri.org](mailto:arc-over@frri.org) or via U.S. Mail. Contact the Editor for details and submission guidelines.

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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/Nets

**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

**W9CEQ\_\_B D-Star—442.10625 Mhz (+ 5.0 Mhz offset)**  
**W9CEQ\_\_C D-Star—147.225 Mhz (-6.0 Mhz offset)**  
FRRL Digital Voice/Data Repeaters  
Contact W9XA for information

**KC9OEM—145.470 Mhz.** -600 KHz, 103.5 access tone  
**KC9OEM—444.525 Mhz** + 5 Mhz, 114.8 access tone  
**(2 meter is primary Kane Co. SKYWARN /ARES freq)**  
Owned by Kane County OEM

**W9DWP—Kane Co. Amateur Public Svc. Rptrs.**  
145.270 -600 KHz, 107.2 access tone  
443.025 +5 Mhz 114.8 access tone

**W9ZGP—NIARC**  
147.060 +600 KHz, 103.5 access tone

- Weekly ARES/Skywarn Net—Wed. Eve. at 6:30 pm local time on the KC9OEM 2 meter repeater
- Weekly FRRL Net—Tues. Eve. at 7:30 pm local time on the FRRL 2 Meter repeater.
- Monthly Simplex Net—4th Tues following weekly FRRL Net on the FRRL 2 Meter repeater.
- Illinois DStar Net - Wed. Eve. at 8:00 pm local time on the DStar 440 repeater.