

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

January, 2004

Election Results for Officers and Directors

The following Officers and Directors were elected at the December, 2003, meeting.

President: Bill Schaben, W9AX
Vice-President: Dick Illman, AH6EZ
Secretary: Lawrence Miller, KB9YYX
Treasurer: Larry Shaw, W9OKI
Directors: Jack Ekstrom, K9JE
Dave Holdeman, N9XU *
Bob Roehrig, K9EUI

* Dave will serve the remaining 1 year of the term of AH6EZ, who moves to Vice President.

Last Call for the January Banquet

by Mike Urso, K9FE

The Annual FRRL Winter Banquet will take place on Jan 31, 2004, Saturday, at Ralph's Place (At the golf course), 2245 Kennedy Road, Bristol IL.

Cocktail/social hour will begin at 6PM. Dinner will start at 7PM. The cost will be \$20 per person for a really nice buffet. Please make your payments by check to either me (Mike Urso) or Betty Erickson at the January Meeting.

We've got a good group signed up so far, but the more the better. Get your money in so you won't be left out. It plans to be a fun night with a feast for dinner, some good entertainment, and the spectacular installation of officers/directors ceremonies. There will also be door prizes for hams and non-hams alike.

I hope to see all of you there for an evening of fun and friendship.

Mike
K9FE

About the FRRL

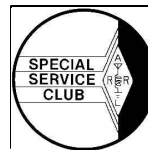
The Fox River Radio League, Inc., is a general interest amateur radio club serving the central Fox River Valley area. Records indicate the club has been in existence since at least 1924, and has functioned continuously ever since. We are an ARRL Special Service Club, an Illinois not-for-profit corporation, 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 in the basement of the former bank build in the Northgate Shopping Center, 900 North Lake Street, 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 odd-numbered months at the meeting location, 900 N. Lake Street, 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, some form of photo identification, and the fee of \$12.00. (The FRRL receives no portion of this fee.)

The next exam is scheduled for Tuesday, January 20, 2004.

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
1010 CW	28.150	Monday	8:00 PM Local
1010 SSB	28.720	Monday	8:30 PM Local
Geritol	147.210	Friday	12:00 N Local

Fox River Radio League

Founded 1924

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I hope all of you had a wonderful Christmas and New Year's celebration time with your families. The major radio-contesting season is about half over, but an assortment of contests can be found throughout the year. When filling out your calendars for 2004, check out the latest editions of the WA7BNM and ARRL contest calendars to help schedule some of your favorite radio operating activities. These calendars can be found on the Internet at <http://www.hornucopia.com/contestcal/contestcal.html> and <http://www.arrl.org/contests/calendar.html?year=2004>.

Just for some fun, consider participating in the FYBO Field Day and/or the Classic Exchange events. Details are listed below. The **FYBO FD** gives various score multipliers according to the ambient temperature at the operating position. The **Classic Exchange** involves the use of old (classic) radio equipment on CW, SSB, and AM (you read that correctly – AM).

January and February radio contests provide great opportunities to quickly accumulate significant totals of states, provinces, and countries worked for participation in the 2004 Bill Erickson HF Challenge and for new awards or endorsements for WAS, WAC, DXCC, etc. In these two months, you can easily work most, if not all, of the 50 states, most of the Canadian provinces, and many DXCC countries. You can probably work well over 50% of your year's HF Challenge totals in January and February. This can be accomplished by participating in some, or all, of the following events: the CW and SSB North American QSO Parties in January, the CQ WW 160 meter DX contests in January (CW) and February (SSB), the NCJ CW and SSB Sprints in February, and the ARRL DX CW contest in February.

For those of you that may be interested in operating on 160 meters, I highly recommend getting a copy of the ARRL publication [DXing on the Edge – The Thrill of 160 Meters](#), by Jeff Briggs, K1ZM. Besides presenting the history of DXing on "160," this book contains excellent chapters on transmitting and receiving antennas for "top band." Two additional ARRL publications, the [ARRL Antenna Book](#), and [Antennas and Techniques for Low-Band DXing](#), by John Devoldere, ON4UN contain a wealth of information about 160 meter antennas. You may be surprised to find that you can install effective TX and RX antennas for "top band" in limited-space situations. Use these references to start, or improve, your set-up on "160" this year.

One of the key ingredients to making lots of contacts on 160 meters is using separate transmit and receive antennas. For starters, you can probably improve your receiving situation on 160 meters with very little effort. A couple of tips for receiving on 160: (1) turn down the RF gain on your receiver a bit, and (2) use some of your existing antennas for receiving (e.g., 40 and/or 80 meter dipoles). So far, my best receiving antenna on 160 is my 80 meter inverted "V." Search the Internet for just some of the wealth of information about 160 meter antennas. Very popular receiving antennas include the "EWE," "Pennant / Flag," and especially the K9AY loop. Part of the fun on this band is experimenting with small-sized receiving antennas and related accessories.

A review of recently published contest results provided evidence of a few FRRL members having participated. Per the NCJ website, the summary of the January **CW** NCJ NAQP included 13 ninth call area stations listed on WA9TPQ Memorial teams. FRRL members listed included AH6EZ/W9, KB9YSI, W9AX, K9JE, K9LU, and K9MMS. The summary for the January **Phone** NAQP included 16 ninth-area stations listed on WA9TPQ Memorial teams. FRRL members listed included AH6EZ/W9, KB9UJB, KB9YSI, KC9UM, KD9XP, K9JE, K9LU, K9MMS, NA9A, N9HED, W0HED, W9AN, W9AYJ, W9CEO, and W9CZA. The January/February 2004 edition of the NCJ is due for delivery any day now, and it hopefully should include a write-up about the WA9TPQ teams that participated in memory of Bill Erickson.

The results of the 2003 CQ WPX SSB contest appeared in the January 2004 edition of CQ Magazine, and two FRRL members were listed. In the 9th call area, low-power category, K9JE took first place, and W9CEO took 4th place. Congratulations to Jack and Maurice!

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CQ Contest

(Continued from page 3)

Some of the contests that are scheduled to take place in the next several weeks are listed below. For more information on any given event, search for details via the Internet using the referenced links.

NCJ North American QSO Party

Sponsored by the National Contest Journal

CW – Jan. 10, 1800Z – Jan. 11, 0600Z

SSB – Jan. 17, 1800Z – Jan. 18, 0600Z

Classifications: Single operator and multi-operator, two-transmitter. Bands: 160, 80, 40, 20, 15, and 10 meters. You may work the same station once per band. Suggested frequencies are 1815, 3535, 7035, 14035, 21035, and 28035 kHz for CW and 1865, 3850, 7225, 14250, 21300, and 28500 kHz for SSB. Exchange: operator name and location (state, province, or country (S/P/C)). For this contest, only one section is used per state. Multipliers are U.S. states (including KH6 and KL7), 13 Canadian provinces/territories, and other North American countries. District of Columbia counts as MD. Countries on other continents may be worked for QSO credit but do not count as separate multipliers. Scoring: multiply total valid contacts by the sum of multipliers worked on each band. Complete details can be found at <http://www.ncjweb.com/contests>

MI QRP Club January CW Sprint

Jan. 18, 1200Z – Jan. 19, 2400Z

Bands: 160 – 6 meters. Categories: SOAB (single-operator, all-band) with classes A (<250 mW), B (<1W), C (<5W), D (>5W). Exchange: 6-digits, serial number and serial number received in previous QSO (e.g., first QSO exchange is 001 000). A station can be worked once every 30 minutes. QSO points: same entity – 1 pt., different entity – 2 pts. Score: total QSO points. For more information, see <http://www.qsl.net/miqrclub>

07 PSKFest

Sponsored by the Penn/OH DX Society (PODXS)

Jan. 18, 0000Z – 2400Z

Bands: 80 – 10 meters. Categories: SOSB-QRP, SOAB-QRP, -MP (<50W), -HP. Exchange RST and S/P/C. One point per QSO. Score: QSO points X SPC counted only once. For more information, see: <http://www.podxs.com/html/pskfest.html>

CQ WW 160 Meter DX Contest

Sponsored by CQ Magazine

CW – Jan. 24, 0000Z – Jan. 25, 2359Z

SSB – Feb. 28, 0000Z – Feb. 29, 2359Z

Classes: single and multi-operator only. Use of packet or spotting net makes an entry multi-operator. Three sub-classes for single operators: H = power over 150 watts, L = power under 150 watts, and Q = 5 watts or less. Exchange: RS/T and state for U.S., province for Canada, and either prefix or country abbreviation for DX. Scoring: station in own country = 2 points, another country on same continent = 5 points, and other continents = 10 points. Multipliers: each U.S. state (48), District of Columbia (D.C.), Canadian area (14), and DX country. KH6 and KL7 are considered DX and not states for this contest. **The segment 1.830 to 1.835 MHz is the DX window and should only be used for DX QSOs.** For complete rules, see <http://www.cq-amateur-radio.com>

ARRL January VHF Sweepstakes

Jan. 24, 1900Z – Jan. 26, 0400Z

Categories: single-op, LP or HP; single-op portable; rover, multi-operator, and limited multi-operator. Exchange: grid-square locator (signal report is optional). Points vary by band. Multipliers are the total number of grid squares worked per band. For more information, see <http://www.arrl.org/contests/rules/2004/jan-vhf-ss.html>

(Continued on page 5)

CQ Contest

(Continued from page 4)

North American Sprint

Sponsored by the National Contest Journal (NCJ)

CW – Feb. 1, 0000Z – 0400Z

SSB – Feb. 8, 0000Z – 0400Z

Bands: 80, 40, and 20 meters only. Suggested frequencies: 3540, 7040, and 14040 kHz for CW and 3850, 7225, and 14275 kHz for SSB. Exchange: the other station's call, your call, your serial number, your name, and your location (S/P/C). Use state only – no sub-sections per state (e.g., California is only CA). Multipliers count only once – not per band. Scoring: multiply contacts by the sum of states, provinces, and other North American countries. (Do not count USA and Canada as countries.) Special QSY rule: If any station solicits a call (CQ, QRZ, etc.), including completion of a QSO where the frequency was inherited, they are permitted to work only one station in response to that solicitation. They must then move at least 1 kHz before calling another station, or at least 5 kHz before soliciting other calls (CQ). **Excellent primers on sprint operation can be found at:** <http://www.contesting.com/articles/198> (CW Sprinting – Beginners Guide) and <http://n6tr.jzap.com/sprint.html> (The Sprint Survival Web Page). **Another tip: if your contest logging software includes an option for "sprint logic" on CW, be sure to activate that mode. This is especially helpful for automatically sending the exchanges in the correct sequence – different for CQ or S&P modes.** For complete contest rules, see <http://www.ncjweb.com>

FYBO (Freeze Your Butt Off) Winter QRP Field Day – CW

Sponsored by the AZ ScQRPions

Feb. 8, 1500Z – 2300Z

Try this one just for fun. Use QRP calling frequencies on HF bands, work stations once per band. Categories are SO, MS, MM, and Novice/Tech – indicate home or field. Exchange RST, S/P/C, name, power, and temperature °F at operating position. Score: total QSOs X S/P/C (counted only once) X temperature multiplier X 4 (if field) X 2 (if alternative power) X 2 (if QRP). Temperature multipliers vary from 1 to 6. Add 10,000 points for a QSO with NQ7RP. For more information, see <http://www.extremezone.com/~nk7m>

Classic Exchange – CW and Phone

Feb. 8, 1400Z – Feb. 9, 0800Z

Try this one just for fun and nostalgia. Score is determined by the age of your equipment. Work stations again with different radios. Exchange: Name, RS/T, S/P/C, and mfr/model of transmitter and receiver. Frequencies: **CW** – 1810, 3545, 7045, 14045, 21135, 28180; **AM** – 1890, 3880, 7290, 14280, 21380, 28320, 29000, **SSB** – 3870, 7280, 14270, 21370, 28490. For complete information, see <http://qsl.asti.com/CX>

ARRL DX CW Contest

Feb. 21, 0000Z – Feb. 22, 2400Z

Categories: Single-operator – all band, QRP, LP, HP, single band, assisted; multi-operator – single, two, and multi-transmitter. Exchange: W/VE stations send RST and state or province; DX stations send RST and power. Multipliers: sum of DXCC entities (except U.S. and Canada) worked per band – for W/VE stations. For complete details, see <http://www.arrl.org/contests/rules/2004/intldx.html>

That's plenty of contesting to keep you busy for a while. Whether entering as a "serious" or "casual" operator, just enjoy the events and have fun. Wishing you much success in your 2004 contesting endeavors . . .

73,

Gary . K9MMS

Bill Erickson HF Challenge by Alan Ahasic, W9AN

By the time you read this the 2003 HF Challenge will be over. Several challenge participants submitted scores this month. In the Ragchew class, Keith, AB9CC, held on to first place with a score of 102 and Dick, AH6EZ, increased his score to 56. Bill, KB9YSI, entered the Operator class in third place with a score of 156. There was a lot of activity in the QRO class. Dick, AH6EZ, continues to work new ones and increased his contacts to 258. Don, W0HED, entered the QRO class with a score of 123 and captured third place. Keith, AB9CC, held on to second place with a score of 129 and Al, W9AN, increased his score to 40. Of course, these are not the final scores. The final standings will be determined from the challenge worksheets submitted by the participants after the challenge ends.

Remember the 2003 HF Challenge ends on December 31. To receive a certificate for your participation in the challenge, you must submit the 2003 FRRL HF Challenge Worksheet and Application to Joe, NA9A, by January 15, 2004. Everyone who submits a worksheet will receive a certificate at the 2004 FRRL Winter Banquet.

By now you should have received the 2004 challenge worksheet in the mail. Mike, K9FE, has volunteered to collect the scores and write the monthly reports for the Bill Erickson 2004 FRRL HF Challenge. Send your 2004 challenge score updates to Mike at his email address listed in the FRRL Roster.

Some of the DX showing up in the logs this month are: CO2 (Cuba), CX1 (Uruguay), FO0 (Austral Island), FY5 (French Guiana), H7A (Nicaragua), HI8 (Dominican Republic), KP4 (Puerto Rico), LR1 (Argentina), OA4 (Peru), P49 (Aruba), T32 (East Kiribati), TI5 (Costa Rica), WP2 (US Virgin Islands), XE1 (Mexico), ZF2 (Cayman Islands), ZL6 (New Zealand), ZX3 (Brazil).

Remember to get your updates to Mike, K9FE by the 15th of each month to have them included in the ArcOver. Mike's e-mail and telephone information are listed in the club roster. Also include a list of rare and not so rare entities you have worked so Mike can share this information and maybe encourage someone else to get on the air and enter the Challenge. [For more info on the Challenge, see the article on page 9.](#)

73 and good DX,
Al, W9AN

2003 Bill Erickson HF Challenge Standings

Ragchew Class	States/Provinces	DX Countries	Total
AB9CC	43/10	49	102
K9COE	50/3	18	71
AH6EZ	26/0	30	56
K9FE	22/0	1	23
W9DTR	16/1	1	18

Operator Class	States/ Provinces	DX Countries	Total
K9JE	49/10	108	167
W9CEO	47/9	101	157
KB9YSI	50/10	96	156
W9DTR	48/8	81	137
KA9OBH	14/3	61	78
KD9XP	38/0	6	44
K9FE	22/1	3	26

Limited Class	States/ Provinces	DX Countries	Total
K9MMS	50/8	108	166
K9COE	47/9	60	116

QRO Class	States/Provinces	DX Countries	Total
AH6EZ	50/13	195	258
AB9CC	46/11	72	129
W0HED	45/8	70	123
NA9A	44/6	60	110
W9AN	17/2	21	40

Solar Flux

by Bill Muhr, KB9YSI

In case you are wondering, yes, there has been a format change for the new year. I've eliminated the double column layout in favor of a single column view. This new layout has one advantage—it makes it possible to properly format internet web links (URLs) so that they can be 'clickable' in the PDF version of the newsletter.

There is, of course, a drawback, which is that this format may be harder for you to read. If it is please let me know and I will return to the previous layout. The prime goal here is legibility, so if the ability to click on a link gets in the way of things being easy to read we will go back to the old version.

It's January of a new year, so please remember to get your dues in ASAP. Dues must be paid this month if you want your name to appear in the club roster.

The list of officers and directors on page 2 will be updated for 2004 after the installation ceremonies at the January Banquet.

As always, please let me know if you have comments and/or suggestions about the ArcOver.



Share the Excitement!

by Dick Illman, AH6EZ

Here is what I have heard of recently. If you had fun with ham radio, share it. If you have not been having fun with ham radio, why not?

The big rage on the repeater seems to be all of the relative DX being hunted on 2m SSB. It would seem that the whole world is going horizontal and learning about lower loss cable such as Belden 9913.

Mike, K9FE is busy overloading all nearby TVs with his Yaesu HF amplifier. He says that it seems a bit easier to work DX with POWER.

Dick, AH6EZ is having fun with his IC706mkIIg, mostly on 20m and 40m SSB. Dick has been busy working 60m and is up to 32 states worked. He has heard the experimental VO1MRC station (operated split on 5327.5/5346.5) and an English station on 5403.5.

Let me know of fun you are having with ham radio by email (AH6EZ@aol.com), on the Fox Repeaters, or telephone 630-584-4388. I will share it in the next ArcOver.



January Program Notes

by Dick Illman, AH6EZ

The January program will be mind boggling, while entertaining to EVERYONE. I am calling it **The Ham Shacks of the World**. There will be shacks, operating environments, and antennas that are small, large, new, old, pretty, ugly, remote, local, mobile, exotic, adults, children, technical, friendly, wall to wall, historic, unique, plain, all about family or pets, ...you name it.

There will be embedded surprises and humorous items. There is even a slide of one of our members. You may get ideas of how to modify or improve your shack. I guarantee that you will be captivated. I will have a few CDs to distribute so you can enjoy at your own leisure. You will see the club's new video projector in action.

The Last Word in Digital Voice Communications?

By DJ, KF9OW

In the New Products section of *QST* for November 2003 (p. 64) the AOR Digital HF Format Modem is introduced. There is also a full page display advertisement (p. 8) for your consideration. The ARD9800 is a digital modem that converts analogue voice to a digitally encoded set of modem tones for transmission via standard HF SSB transceivers. The unit promises "near FM" quality audio and the likelihood that the digital format can operate at lower "signal" levels than those of analogue SSB. Presumably this means getting through with less output power. Apparently it can also be used for AM and FM emission modes.

I have no special knowledge of this product, but have had a keen interest in digital developments over the years. I have asked lots of questions about digital voice modes and the more I learn, the more questions I have, as you will see below. For some time I was encouraged to get a sound card interface to send the "digital modes." Of course we are talking about two different kinds of critters here! In recent years there have been some helpful updates on digital transmission. Doug Smith, KF6DX provided articles entitled, "Digital voice: The Next New Mode," and "Digital Voice: An Update and Forecast" in the January and February 2002 issues of *QST*. And *QST* has also chronicled developments in digital broadcasting as well.

Back to the ARD9800. Hook up is apparently straight forward with cables to the Mic and Speaker Out connections on the Rig. Usual multi-mode radio operation is uninterrupted. Oddly, the unit comes with a mobile Mic but you need to buy cable accessories to connect to your brand of transceiver. It operates in what is called "the open G4GUO digital protocol" that features forward error correction. Apparently round-table QSO's are quite workable in this digital audio format. With an optional memory board the unit will also transfer still images and computer files.

I wish I had real answers. What I do know is that we are again in a time of rapid change that raises yet more questions. Here are mine:

Didn't Doug Smith say it was going to be tough to do this digital trick at HF frequencies?

Are we looking at obsolete HF Rigs, again? CW to AM to FM and SSB- Can DV (Digital Voice) be far behind?

Is image and file transfer capability a threat to the sound card interface products? Will Rigblaster, MFJ and their competitors be shy about adding emission modes like digital voice to their current sound card interface units?

Alinco has been in the market with digital voice for 144 and 430 MHz for a couple of years. Are they going to discontinue their integrated transceivers and let external boxes take over the market?

Will there be other data transmission standards making the G4GUO digital protocol obsolete? Does a digital voice product need to have a selector switch to choose between competing digital voice protocols? Do we need to be thinking about a digital voice unit that is either software up-gradable or has slots for multiple replaceable digital voice hardware chips?

If I buy the ARD9800 right now, will I have anybody to talk to on it? If I wait five years to buy a digital voice unit, will there be anybody left to talk to on SSB?

The unit is priced at \$549 plus connecting cables and optional memory board. More information is available about the ARD9800 is at: <http://www.aorusa.com/ard9800.html>

I bet you have your own questions, too. Good hunting!!

Thanks to Dave, WB0KGN for a review a prior version of this article

The Bill Erickson HF Challenge *by Mike Urso, K9FE*

The Challenge is named for one of the two originators. Bill Erickson, WA9TPQ, was a great communicator. It started as a friendly competition between Bill and Joe, NA9A, and expanded into a club function. The Challenge was opened to others several years ago at the bottom of the sunspot cycle and was meant to increase our clubs HF activity. Participation in the Challenge is an on-your-honor basis. There are a lot of DXCC countries, States, Provinces, and rocks/reefs to be had. The purpose of the Challenge is to stimulate a sense of friendly competition by being active on the HF bands.

There are 3 classes and the RAG CHEWER competition. In the OPERATOR class, the rules are very simple. Operate on any HF band with less than 250 Watts for the maximum number of DXCC countries, States, and Canadian Provinces. Sounds simple because it is. The QRO category is the same but you are allowed big smoke (Full legal power). The third category is the LIMITED class. In this class you operate limited to the specific band/mode/QRP of your choosing. We have had some really good scores in the past years in all three classes. The RAG CHEWER competition is a fun competition, but I think it is the hardest competition. Count all the RAG CHEWS (contacts that last at least 10 minutes) at 1 per DXCC /State /Province. Sounds easy, but getting some of the DX to communicate that long can be a challenge (*Pun Intended!*)

This year we would like to see every operator capable of operating in the HF bands participate. It is very easy and a lot of fun. You will have received your HF score sheet in a separate mailing. Every month by the 15th e-mail me your totals at K9FE@ARRL.NET so I can list them in the Arc Over. Those of you that aren't HF capable **YET**, look at all those countries and think about how easy it is to upgrade. Happy Hunting and see you on the bands. Maybe YOU can be the contact I credit for Illinois!

de K9FE Mike



HTX-252 Factory Manual Tip

by Dave Holdeman, N9XU

The owner's manual that one gets with the Radio Shack HTX-252 is very elementary and doesn't contain a circuit schematic. You can obtain a factory manual (with circuit diagram) for the HTX-252 by ordering catalog number 12276358 from any radio shack store. My total cost was \$11.44, which included shipping to my home from Ft Worth and Illinois sales tax. This is a lot better manual than the owner's manual that comes with the unit.



Return of the Tube Tester

Sometime in 2003 I loaned a small tube tester in a wooden box to a club member. I do not remember who I loaned it to but I am now working on restoring a Hallicrafters S38 and am in need of a tube tester. Please return it to me at a club meeting. If anyone else has a tube tester I can borrow, that would be nice also.

73 & thanks,
Dick, AH6EZ

Send Address Corrections to:
 Fox River Radio League, Inc.
 736 Fellows Street
 St. Charles, Illinois
 60174-3835

FRRL Event Calendar

January, 2004

FRRL Board Meeting 6
FRRL Meeting 13
 VE Testing 20
 Annual Banquet..... 31

February, 2004

FRRL Board Meeting 3
FRRL Meeting 10

Handy Web Links

FRRL Web Site	http://www.frrl.org/
ARRL Main Site	http://www.arrl.org/
ARRL Central Div. Site	http://www.central.arrl.org/
ARRL IL Section Site	http://www.central.arrl.org/illinois.html
ARRL IL Section News	http://www.arrl.org/sections/?sect=IL
Contest Calendar	http://www.hornucopia.com/contestcal/
Callsign Lookup (QRZ)	http://www.qrz.com/
Vanity Callsign Info	http://www.vanityhq.com/
IRLP Main Page	http://www.irlp.net/
AMSAT	http://www.amsat.org/

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 six days prior to the end of the previous month. Articles can be sent by email to kb9ysi@arrl.net or via U.S. Mail. Contact the Editor for details and submission guidelines.

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Local Area Repeaters

W9CEQ—147.210 Mhz.

+600 Hz, 103.5 access tone
 Owned by FRRL

W9CEQ—440.300 Mhz. IRLP Node

+5 Mhz, 114.8 access tone
 Owned by FRRL

W9ZGP—146.580 Mhz.

+1.08 Mhz (147.660)
 Owned by NIARC

KB9RYA—145.470 Mhz.

-600 Hz, 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)