

Fox River Radio League  
PO Box 673  
Batavia, IL  
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**February, 2004**

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## **FRRL Banquet Report: Great Fun Had by All!**

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The annual FRRL Club Banquet was held on Saturday, January 31, 2004 at *Ralph's Place at the Blackberry Oaks Golf Course* in Bristol, IL. The event was extremely well attended, with over 65 club members and guests present and accounted for.

The evening began with a social hour, followed by the serving of an excellent buffet dinner. Entertainment was provided by "The Little People", two costumed figures whose dancing and interaction with the group had the room in stitches. The awards portion of the evening began with recognition of officers and committee chairman, followed by a series of humorous awards highlighting the failings, foibles and foul-up of various club members.

The evening continued with the introduction of the 2004 Officers & Directors, the passing of the official Club Briefcase to President Bill Schaben, W9AX, and the awards for participation in the Bill Erickson HF Challenge (see page 6).

Then it was time for the presentation of the "major" club awards for the year. The first was a special President's Award, which went to Betty Erickson, N9YFC, for her years of service and her dedication to the club. Next was the award for FRRL "Ham of the Year", presented to Dick Illman, AH6EZ.

Don Rassmussen, N9III, did his usual outstanding job as Master of Ceremonies. Mike Urso, K9FE, was Banquet Chairman.



Dick Illman, AH6EZ, with his Ham of the Year Award.



Betty Erickson, N9YFC, receives the President's Award from Bill Schaben.

## 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 in the basement of the former bank building\* 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, March 16, 2004, at the Prisco Community Center in Aurora.

## 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

## Fox River Radio League

Founded 1924

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www.frrl.org

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**THE FEBRUARY MEETING WILL PROBABLY BE THE LAST MEETING AT THE NORTHGATE SHOPPING CENTER — PLEASE WATCH THE WEB SITE AND THE ArcOver FOR INFORMATION ABOUT THE NEW MEETING SITE AT THE PRISCO COMMUNITY CENTER IN AURORA.**

January 2004 is nearly over already! How are you progressing in this year's edition of the Bill Erickson HF Challenge? This month has already presented several opportunities to work lots of states and provinces. Don't forget to check some of the contest calendars for listings of state QSO parties. This can be an easy way to work some of the more -rare states.

Now for a cautionary note. **Take the time to carefully and completely read the rules for all radio contests in which you plan to participate. The log submission deadlines have been drastically reduced for some contests.** With the increased usage of computerized logging and log-checking, this trend will probably continue. As an example, I was surprised to discover that the deadline for NCJ-sponsored NAQPs log submittals has been reduced to 2 weeks. Afterwards, I made sure to quickly submit my NAQP CW entry for January. **Watch out . . .!**

A review of recently published contest results provided evidence of only two FRRL members having participated. **AH6EZ/W9** and **KB9YSI** were listed in the summary of the 2003 ARRL September VHF QSO Party. Dick was 7<sup>th</sup> and Bill was 9<sup>th</sup> for Class A in Illinois. I was surprised to not find any FRRL members listed in the results of the IARU contest when I did a data sort of the ARRL scores database. I apologize if I missed any FRRL members in the VHF or IARU listings.

**The January/February 2004 issue of the National Contest Journal** included separate **write-ups about the January 2003 NAQP CW and SSB contests.** WA7BNM wrote the summaries, and for the SSB coverage, Bruce included the write-up that I had sent to him last January explaining **the WA9TPQ, Bill Erickson, memorial teams.** (As you will recall, many members of the FRRL and the Society of Midwest Contesters participated.) Bruce was very considerate of our club to have published my comments, almost in their entirety – and verbatim, in **a special sidebar in the SSB scores section on page 43.** If you subscribe to the NCJ, or know someone who might share a copy with you, take a look at the article **in memory of Bill.**

Some of the contests that are scheduled to take place in the next few weeks are listed below. Here are more opportunities for you to work states, provinces, and countries to enhance your operating achievement awards "wallpaper" pursuits and to participate in the 2004 edition of the Bill Erickson HF Challenge. For more information on any given event, search for details via the Internet using the referenced links.

#### **NCJ North American Sprint**

**CW** – Feb. 1, 0000Z – 0400Z

**SSB** – Feb. 8, 0000Z – 0400Z

Details on these events, along with references to sprint operating technique primers, were given in last month's CQC column. For complete rules see <http://www.ncjweb.com> and click on contests.

#### **Classic Exchange – CW and Phone**

Feb. 8, 1400Z – Feb. 9, 0800Z

Use old, classic radio equipment. Information on this one was also listed last month. Rules available at <http://qsl.asti.com/CX> Free "CX" logging software may be downloaded from: <http://www.carl-yaffey.com/classic.html>

#### **QRP ARCI Winter Fireside SSB Sprint**

Feb. 8, 2000Z – 2400Z.

Sponsored by the ARP ARCI.

Frequencies: 3.865, 7.285, 14.285, 21.835, and 28.385 MHz – spread out +/- 10 kHz from each. Work stations once per band. Categories: all-band, single-band, high bands, low bands, multi-op, and DX. Exchange: RS, S/P/C, and ARCI number (non-members send power). QSO points: member = 5, non-member/different continent = 4, non-member/same continent = 2. Multipliers: S/P/C total for all bands – count once per band. Power multipliers: range from 1 to 20. Bonus points: If you operate portable (using battery or solar power AND with a temporary antenna), add 5000 points to your final score. For complete rules, visit the website: <http://2hams.net/ARCI/index.htm>

*(Continued on page 4)*

## CQ Contest

(Continued from page 3)

### FISTS CW Winter Sprint – CW

Feb. 14, 1700 – 2100Z

Sponsored by FISTS International CW Club

Bands: 80 – 10 meters. Work US / VE stations. Categories: SOAB-QRP (<5W), SOAB-QRO, Club. Exchange: Name, RST, S/P/C (State/Province/Country), members send FISTS number, nonmembers send power output. QSO points: FISTS members = 5, nonmembers = 2. Score: QSO points x S/P/C (count each only once). For complete rules, see: <http://www.fists.org/>

### ARRL International DX Contest

**CW** -- Feb. 21, 0000Z – Feb. 22, 2400Z

**SSB** – Mar. 6, 0000Z – Mar. 7, 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 the CW event, be sure to work J6. K9JE, Jack, will be part of a team operating from St. Lucia during ARRL DX CW.** For complete details, see <http://www.arrl.org/contests/rules/2004/intldx.html>

### For the ladies . . . (and gents):

#### YL-OM Contest – SSB

Feb. 21, 1400Z – Feb. 23., 0200Z

Sponsored by the YLRL

The website <http://www.qsl.net/ylrl/ylcontests.html> lists rules for 2003. The date for this year came from the WA7BNM contest calendar. Unfortunately, it looks like the YLRL did not yet update their contest website since posting the 2003 rules. If you want to participate in this event, try searching the internet a bit, and hopefully you can find 2004 rules – I did not find them so far. For starters, try <http://www.ylrl.org/ylrlcontests.html>

### CQ WW 160 Meter DX Contest – SSB

Feb. 28, 0000Z – Feb. 29, 2359Z

Sponsored by CQ Magazine

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 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 during the hours of darkness.** For complete rules, see <http://www.cq-amateur-radio.com>

### NAQP – RTTY

Feb. 28, 1800Z – Feb. 29, 0600 Z

Sponsored by the National Contest Journal

Single operators may operate a maximum of 10 out of the 12 hour contest period. Multi-operator, two-transmitter entrants may operate the entire 12-hour period; however, there is a 10-minute band-change dwell-rule for M2 participants. Power is limited to 100 watts. Bands: 80, 40, 20, 15, and 10 meters – no 160 for RTTY. Exchange operator name and station location. Multipliers are states, Canadian provinces, and North American countries. The same multiplier may be worked on each band. Rules are similar to those given for the CW and Phone NAQP last month. Complete rules may be found on the “web” via: <http://www.ncjweb.com> click on contests, etc.

Good luck in the contests, happy hunting for HF Challenge needed “entities,” and just enjoy the journey.

73,

Gary. K9MMS

## **Fox Repeater and IRLP Update**

*By Dick Illman, AH6EZ*

There have been some unidentified stations and cross band repeaters on our repeaters this month. If you have the capability of operating a cross band repeater, remember that you should never connect two repeaters because it will cause continuous interference. I hope to have an IRLP guide and updated node list handout at the February meeting.



## **New Club Email Addresses Add Convenience**

*by Mike Urso, K9FE*

We have made some changes on our club web site, <http://www.frri.org/>, that have resulted in a block of new email address assignments. These addresses will consolidate most of our club email at the frri.org domain, and should be easier to remember than the mixed bag of domain names we were using previously.

Here is the list of addresses:

General Club Mail: [frri@frri.org](mailto:frri@frri.org) or [mail@frri.org](mailto:mail@frri.org)

Newsletter Mail: [arcover@frri.org](mailto:arcover@frri.org)

HF Challenge Updates: [challenge@frri.org](mailto:challenge@frri.org)

Hamfest Mail: [hamfest@frri.org](mailto:hamfest@frri.org)

Memberships and Member Info Mail: [membership@frri.org](mailto:membership@frri.org)

Database Updates: [updates@frri.org](mailto:updates@frri.org)

Webmaster Mail: [webmaster@frri.org](mailto:webmaster@frri.org)

Web Site Feedback: [feedback@frri.org](mailto:feedback@frri.org)



## **Welcome Aboard!**

Welcome to new FRRL members who have joined recently.

- ? Greg Braun -- N9CHA
- ? Thomas G. Dettman, Sr. — N9YBP
- ? Mark Habberfield — KB9OPW and spouse Debra (Callsign coming soon).
- ? Bernard Hightower — ND8G
- ? Thomas (Tom) Kmiotek — KC9EBF
- ? Louis Zimmerman — W9FAN
- ? Anthony (Jim) Spang — KC9FBH

## Bill Erickson HF Challenge by Mike Urso, K9FE

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Let us start off the year with a round of applause for the 2003 winners.

In the **QRO** class First Place is Dick, AH6EZ/W9 with 257, 2<sup>nd</sup> was Dick, W9GIG with 173, and third place was Joe, NA9A with 147. Great scores for the big smoke gang. There were a total of 6 entries in QRO this year.

In the **Operator** class, the competition was very tight. Jack, K9JE with 206, took first place. Second place was Maurice, W9CEO with 161. Followed by Herb, W9DTR with a score of 160. There were also 6 entries in operator class.

This year **Limited** class only had two entries, but they put in a good showing. Gary, K9MMS had a whopping 203 CW! That takes work. Second was John, K9COE with 118.

Keith, AB9CC with 101, led the **Rag chew** competition. That is amazing...that means many of his QSOs were DX. Getting DX to rag chew can be very difficult. Second was John, K9COE with 70. Third was Dick, AH6EZ with 59. Five of the entries also submitted Rag chew scores this year.

We had 14 entries in the 3 competition classes. Were you one of them? Did you make even a handful of contacts last year? This year fill out the challenge sheet and **CHALLENGE** yourself. Scores as low as 46 were turned in. I know you probably made at least that many. Be part of the fun, it doesn't cost anything to be a part of the Challenge.

The 2004 HF Challenge is under way with a few who really got the jump on their scores. AH6EZ in **QRO** class pulled off all 50 states! I believe they were mostly in a mostly in a RTTY contest. Seems he even had time for 13 Rag chews. Nice going Dick! Joe, NA9A, starts out in LAST in each category he is entered. K9MMS in **Limited** turned in a great total of 56. As of now he is winning that category, not to mention he is the only one in that category so far. K9COE is also gave a great showing in **Operator** class with a score of 54. This is a really great showing for January. (See the tables on the next page.)

Remember, just because you started in one class doesn't mean you are tied to that class all year. You can go from **Limited** to **Operator** to **QRO** easily. Going backwards poses a problem since you cannot use your **QRO** contacts for **Operator** or **Limited IF** they were gotten with higher power than the class you want to be eligible to be in. Remember the 250 watt output power on the **Operator** and **Limited** categories

The reported DX heard so far amounts to US Virgin Islands (KP2), Aruba (P4), the Cayman Islands (ZF), Dominican Republic (HI3), Sweden (7S2), Niger (5U7), Morocco (CN8), Barbados (8P6), Jamaica (6Y5), Ireland (EI6), Fernando de Noronha (PY0F), Philippines (DP1), San Andres (HK0V), Namibia (V51), Jordan (JY9), Marshall Is. (V73), and Tuvalu (T20). So who says DX is dying in the decline of the cycle? The key is to just get out and work them. AH6EZ knows that patience and persistence can be the best weapon in the DX hunt. (Remember he runs a vertical and wires!)

Speaking of antennas, AH6EZ has just added another to his arsenal. Another vertical, only this time for 60 meters! Yep, a 45-foot vertical may make the magic happen. Next month I'll tell more about it and I'll keep you posted as to how well it works.

This year I am going to try running QRO. Not as much smoke as some of our QRO entries are running, but it helps me quite a bit with my limited antennas. I think the goal is to optimize my working conditions with what equipment and antennas I have.

### 2004 FRRL HF Challenge

Remember to get your updates to me by the 15th of each month to have them included in the **ArcOver**. Send them to [challenge@frrl.org](mailto:challenge@frrl.org). Also include a list of rare and not so rare entities you have worked so we can all be a part of the HF hunting. Part of the hunt is the knowledge of who to look for.

Good Hunting!  
73 de K9FE Mike Urso

## 2004 Bill Erickson HF Challenge Standings

Rag chew Class	States/Provinces	DX Countries	Total
K9FE	16		16
AH6EZ	13		13
K9COE	5		5
NA9A	1		1

Operator Class	States/ Provinces	DX Countries	Total
K9COE	42/5	7	54
NT3J	33/4	12	49
KB9YSI	31/5	8	44

Limited Class	States/ Prov- inces	DX Countries	Total
K9MMS	45/6	5	56

QRO Class	States/Provinces	DX Countries	Total
AH6EZ	50/9	58	117
K9FE	22/2	3	27
NA9A	1/0	12	13

## Solar Flux

by Bill Muhr, KB9YSI

Thanks to Tom and Lawrence for the articles on passing the code and the construction of the Rockmite QRP radio. Both of them are both terrific.

Congratulations to the Skogen family on the birth of Michael Joseph Skogen on January 8th. He weighed in at 8 lbs. 10 oz., and mother and baby are doing fine. Rumor has it that Michael is already banging out morse code on the sides of his crib.

The comments on the new single column format were just about equally divided for and against. It seems the key is how you read the ArcOver. If you read it online, chances are you like the single column format. If you get it in print format or print out the web version you probably prefer the multi-column version. For now I'm going to stick with the single column format for ease of preparation and online reading.

That's it for this month. See you at the meeting, and stay radio-active!

Bill



## 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?

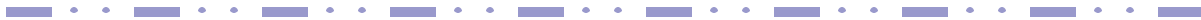
Dick, AH6EZ has already worked 50 states for the year with Alaska on 80m being the last one. Dick has put a full quarter wave vertical wire antenna for 60m up in his backyard trees and finds it is working GREAT. Only 7 states left on that band. Alaska and Hawaii are going to be tough with only 50 watts ERP.

Dick, AH6EZ is planning a trip to England and Scotland in April. He built a dual band J pole antenna which will also work with the Elecraft KX1 rig and it's antenna tuner he plans to bring on the trip.

Dick, AH6EZ has been making packet QSOs through the ISS. The secret is to be fairly careful on doppler shift. The ISS antenna seems to have a lot of directivity such that only fairly overhead passes are good.

Mike, K9FE has been busy frying his Christmas lights with his linear amplifier much to the amazement of his kids.

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



## February Program Notes

by Dick Illman, AH6EZ

Although the last program was a solid hour long, I hope you all enjoyed the walls of Collins, etc in the Ham Shack of the World. The February program will be about the Columbia shuttle disaster and recovery analysis that happened a year ago.



## How I Passed Element 1

by Tom Kmiotek, KC9EBF

With a fair number of newly minted Technician operators recently having joined the FRRL, discussions on the FRRL 2-meter repeater sometimes turn to the topic of passing Element 1, the telegraphy examination. I leave aside the argument of whether the 5 word-per-minute (wpm) CW test will, or should, continue to be a requirement for higher class licenses. I became intrigued by the CW mode, and I wanted to begin learning the skills to become a competent CW operator regardless of whether the 5 wpm CW requirement remains for earning higher class operating privileges. Whatever the motivation to take the Element 1 examination, I offer my experience that others might benefit.

In searching the Internet, one can become overwhelmed with advice on learning the International Morse Code. There are numerous commercial products available to help pass the examination. And, there is freeware available to do the same thing. My goal was to find a straight forward, structured and relatively inexpensive way to learn the code. I searched the web numerous times, read any number of articles on the "best method" to pass the examination, and read numerous [www.eham.com](http://www.eham.com) reviews of commercially available products.

The method I settled on and that helped me prepare for, and pass, Element 1, the 5 wpm telegraphy examination, was the ARRL audio CD, "Your Introduction to Morse Code." I used the CDs in conjunction with the course outlined in, "Introduction to Morse Code" by Chuck Adams, K7QO. The course is succinct and specifically designed to use the ARRL audio CDs. It's available for free at <http://www.qsl.net/k7qo/code.pdf>. In eleven pages of text, Chuck Adams paces you through all the tracks in the two CDs over 27 days. The course and CDs don't use mnemonic devices or other memory tricks. The structured practice sessions are intended to each last about 30 minutes a day, and you begin by actually listening to code without a book in front of you.

My practice and study habits were less than exemplary. About the only time I could devote to practicing code was my daily train commute to work. This study environment on a commuter train is nothing like the quiet, comfortable, and distraction-free location that Chuck Adams recommends. Nevertheless, once I began the sessions, I was hooked and couldn't wait until my next practice. I was able to keep focused on learning International Morse Code by thinking of it as learning a foreign language. But, for the Element 1 examination, the language of International Morse Code has only 43 words, namely, twenty-six letters, ten numbers, and the seven required procedural signals. Think of how remarkable that is, learning a foreign language that has only 43 words! What was even more encouraging is that 14 of the letters, almost one-third of the characters, are short words! That is, the characters have three or fewer "dot" and "dash" elements. None of the characters has more than six "dot" and "dash" elements.

In all honesty, recognizing the characters for their distinct individual sounds was not immediate with me. I wondered if it would ever happen. But it did. After about two weeks I recognized the distinct sounds of the characters. It seemed to happen in an instant. One minute I was struggling with some newly introduced characters and then the next minute the unique sound recognition came in a flash. After the 27 days of the course, plus a couple of more days before the next VEC examination date was scheduled nearby, I passed Element 1.

Right now, I'm working on increasing my code speed using the MFJ Pocket Morse Code Tutor, Model MFJ-418. That's for the train commute. In addition, I am using the "Koch Method CW Trainer - G4FON," which is free from <http://www.q4fon.co.uk/> downloaded on my home desktop PC.

I can also recommend the book that got me interested in CW, "The Art & Skill of Radio Telegraphy," 3rd Edition, by William G. Pierpont, N0HFF <http://www.qsl.net/n9bor/n0hff.htm>. The 3rd Edition is free for the downloading at the web site. Be aware that it is rather long at over 200 pages. Information on purchasing the paperback 4th Edition (at actual cost) is also available at the web site.

Good luck, and I hope my own experience helps.

## The Rockmite

by Lawrence Miller, KB9YYX

The RockMite is a QRP transceiver kit sporting modern specifications.

RockMite Specifications:

- \* Crystal Controlled
- \* 20m or 40m specified at purchase time
- \* User selectable dual frequency (crystal pulling)
- \* Direct Conversion Receiver
- \* 0.5 Watt transmitter output
- \* Semi-break-in transmitter mode
- \* Key types: straight, paddle, or electronic
- \* User settable Morse code rate for paddle
- \* Side tone
- \* PIC Microprocessor
- \* 12 VDC power (mod for 9 VDC)

What can be done with such a rig? I worked two stations in NY and QST reports Larry Johnson, WB4KLI, Worked All States.

I consider this kit for intermediate builders who are familiar with reading schematics, identifying parts, and troubleshooting. Unlike Heathkits, this kit does not include the step-by-step instructions. The kit's documentation lists items to check in troubleshooting.

I first learned of the RockMite in the April 2003 issue of QST and set a goal of building the 20m kit and operating at least one station by September 2003. I selected 20m to have a shorter half-wavelength dipole portable antenna and for better daytime propagation.

I spent \$ 39.50 for the kit, approximately \$ 25.00 for additional parts, and obtained the remaining parts from my "junk" boxes.

I ordered the kit directly from the Small Wonder Labs web site using PayPal. The lead time to delivery was over a month. The Small Wonders Lab web site listed the queue of orders so you could determine your status. I did not need to contact them for order status because I saw my name move up the list.

The kit consists of the printed circuit board (PCB) and the components that mount on the board. The company also sells a set of connectors, which I purchased.

The American Morse company sells a slick enclosure called the "MityBox". It is a CNC milled aluminum box anodized blue with holes and mounts. I opted for a less expensive aluminum box from Jameco Electronics for approximately \$ 6.00. I also purchased CD style ear plugs from Jameco for \$ 0.39.

After delivery of the kit, the first task was to inventory each component. I noted that the U1 I.C. was an SA602A instead of the specified SA612AD. An e-mail to Small Wonder Labs cleared the issue, the SA602A is compatible.

I built the kit in approximately eight hours. This includes inventorying the parts, unit testing each part prior to stuffing, stuffing and soldering the board, initial testing, building the enclosure, battery pack, and portable 20m antenna. Ken, N9QPE, helped unit test, stuff, and solder.

I highly recommend unit testing as it can reduce troubleshooting if a known bad component is caught prior to stuffing. All unit testing was performed with a DVM. The standard ohm meter function tested resistors. This particular DVM has a capacitance meter and a small signal transistor Beta meter. The three I.C.'s were not unit tested.

Prior to the first power up, usually called the "smoke test", I measured the resistance across the power leads to the the RockMite to verify there was no short.

The kit worked at the first power up. I was hearing the same CW stations on both my Icom 718 and the RockMite. I could also hear the RockMite local oscillator on the Icom 718. I built a dummy load capable of handling

2 Watts and added a 1N34A and 0.01 uF capacitor as a detector to measure the power output. It measured at over 0.25 Watts. The October QST article mentions 200 mW, so my measurement is in order with the report.

Without an enclosure, there are significant microphonics. Tapping on the PCB can be heard in the earplugs. The PCB must be mounted in an enclosure to reduce the microphonics to an acceptable level.

I built an enclosure using the aluminum box from Jameco. Templates were drawn on grid paper. With the templates taped to the box, I center punched the holes and drilled pilot holes. Then the full size holes were drilled. The PCB was mounted on standoffs from the top of the box and the controls and jacks were mounted on the side.

I added an off/on switch and the optional volume control. Without the volume control and using battery power, the audio amplifier motorboated. Reducing the volume is a work-around to eliminate the motorboating. I usually set the volume control to the half point and have sufficient volume.

I built a battery with ten NiMH AA cells held by two battery holders, eight and two, secured with a rubber band and a cable to the barrel connector that plugs into the RockMite. I purchased the battery holders from Radio Shack. Walmart carries the NiMH AA cells and chargers.

I borrowed the straight key from my base station.

The antenna is a 20m half-wavelength portable dipole. The wire is 14 AWG stranded wire with plastic insulation. An empty plastic wire spool was used for the center insulator. An SO-239 connector is mounted with sheet metal screws into pilot holes on the spool. Nylon cord is used to hold the ends of the dipole to whatever support might be found.

With the RockMite built and functional, the first part of the goal was achieved. Now to work stations.

I had three field days. The first was a drizzly day with the antenna up 6', broadside oriented NW-SE. I could hear numerous CW transmissions. After trying for about 30 minutes, I received a reply from K2KK in NY. We exchanged call signs. In his QSO card, K2KK states QRM prevented further communications. The second field day was warm and sunny. I setup the RockMite and antenna in the same location and heard numerous CW transmissions. At one time, a shortwave station with music faded in and out. After working for approximately 3 hours, I had not received a reply. It was raining on the third field day. I setup at nearby Church Park and mounted the antenna up 9' with an East-West orientation. Again I could hear numerous CW stations. I received a reply from N2XE in NY. He reported RST of "51N".

Goal accomplished.

I believe building and experimenting with electronics is an important part of amateur radio. If you are interested in kit building, or building from plans, or building from your own design, but hesitate, please contact me as I may be able to volunteer help, tools, and parts.

#### References

1. "The RockMite - A Simple Transceiver for 40 or 20 Meters", QST April 2003, pages 35-38
2. "The RockMite", QST May 2003, pages 86-87
3. "RockMite WAS", QST October 2003, page 20
4. <http://www.smallwonderlabs.com/>
5. <http://www.americanmorse.com/>
6. <http://www.jameco.com/>

Send Address Corrections to:  
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 736 Fellows Street  
 St. Charles, Illinois  
 60174-3835

## FRRL Event Calendar

### February, 2004

FRRL Board Meeting ..... 3  
**FRRL Meeting** ..... 10

**NOTE:** Feb Board Meeting at the Prisco Center. Club Meeting at the Bank Building.

### March, 2004

FRRL Board Meeting ..... 2  
**FRRL Meeting** ..... 9  
 VE Testing ..... 16

## Handy Web Links

FRRL Web Site	<a href="http://www.frrl.org/">http://www.frrl.org/</a>
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.orgcontests/">http://www.arrl.orgcontests/</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>

## ArcOver FRRL Newsletter

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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)**