



Arc Over

October, 2009

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

President's Traffic

By Mike Urso, K9FE

Have you heard the rumor that the sunspots may not return? At no time in recorded history has this really happened. What has been happening though is a lot of activity on 6m and usually OK conditions on 40/80m with decent 20m that I have found often extends into night at times. This is not the norm, but it is fun. Those limited to 10m have seen some decent openings but you have to be fast. The opening moves and changes quickly. If you try you will be able to find some activity on one of the bands. 2m has had some sporadic E openings and some even workable on FM.

Our 2m repeater has been doing very well lately. The D-Star system has been healthy also. Last month the 2m D-Star allocation was announced and, as time permits, I am sure Kermit W9XA will get it fully operational. The 440 machine has had issues that will take some time to work out. Thanks to the help of Paul W9DWP and his loan of personal equipment I have been assured that the repeater will be operating normally soon. Since this is volunteer work and volunteer owned equipment we just have to be patient. Paul has been very busy with his profession recently, so just keep a positive attitude and it will become reality.

I would like to announce the election committee being Craig AB9IV, Justin KC9NYY and Larry W9OKI. There are open offices in the next election so, if you have an interest in running contact either Craig, Justin or Larry. Being a club board member does take time and commitment. The pay is doubled each year however. I guarantee it will not affect your tax bracket. Being in one place too long tends to stagnate the progress of the officer. This being the 3rd year as president of the FRRL has caused my wife to decide I will not be running for president this year. (If MOMMA isn't happy, no one is happy!) My life work load has doubled and taken its toll on my activity in the hobby. So to be able to enjoy hamming more I will be passing the torch, or briefcase as it may be.

If you went to Boone County for the CFMC hamfest you probably had a great time. I think I saw 20 FRRL members there on Saturday. The weather was just like it was for our fest, perfect! The flea market was complete with a lot of treasures and some good friends. I picked up an Atomic Clock from a dealer (Chicago Surplus) out of Trevor Wisconsin for \$10. New condition and worked great. I have dealt with this dealer before and always been pleased with the price and the quality of merchandise. I am sure you have seen their collection of professional microphones, mostly Shure. Lately they have been expanding the scope of what they bring to a fest. Give them a look the next time you see them. The bad part is that when I brought it into the house my wife stated the that clock would be perfect for her office at work....easy come easy go. Support your local hamfests!

By the time you read this the Scarecrow weekend will have passed. We are taking this year as a momentum rebuilding for next year's Scarecrow event. So be ready next year for the return of that fun operating event. Speaking of operating events, the group doing 802.11 work is having a great time and learning as they go. If you would like to get involved contact Bill NF9D or John AG9D for more information. They are using the amateur part of the WiFi spectrum to operate in and having some interesting results. Keep up with the FRRL Yahoo Group and follow or better yet be a part of their experimentation. If you have any unused WiFi equipment laying around I am sure they could find a good home for it as part of an experiment. I have some flat panel gain antennas and a 400 MW amplifier I will be donating to their cause.

See you at the next meeting!

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

Meeting Minutes September 8, 2009.

Meeting called to order at 7:30 PM by Mike Urso K9FE – President with over 50 members present.

Question: Due to the program tonight, there is no question of the month.

Secretary Report: Bill W9WRS – meeting minutes available on Web and Arc Over. One correction to the August minutes: NF9D is eQSL manager.

Treasurers Report: Dean KC9EOQ - Total Assets: \$25,112.27 (Cash/Savings = \$8,338.72. Certificates of Deposit = \$16,773.55. Repeater fund is \$4,102.20)

Committee Reports

Hamfest: Dean KC9EOQ – Thanks given to Dean for the successful Hamfest.

Membership: Justin KC9NYY – Currently 190 members.

Newsletter: Tobi K9TCD – Arc Over is available on front tables and the internet. She needs submissions, has no articles for the newsletter.

Repeater Committee: Dick AH6EZ – The VHF repeater is being worked on. Hopefully there will be IRLP on it soon.

Yahoo Group: Bill NF9D – Everything is going smoothly with all club Yahoo groups. All members are welcome to join if they have not done so already.

Software Defined Radio SIG: Harry K9DXA – 5 people attended the group on Tuesday, June 23. There is a new poll on the Yahoo group regarding which Saturday to have the next SDR SIG meeting.

Net Control: Adam KC9ITG – Needs net controls and backups. There is a simplex net every 4th Tuesday after the regular net.

Public Relations: Jere KA1KPO –

Cyd N9CV - help is needed for the Chicago Marathon – October 11.

Bart - Illinois QSO party – October 18

Cyd N9CV is assistant coordinator Illinois ARES

Cyd N9CV – There will be a simulated 8.0 earthquake emergency on October 13, 7:30 A.M. Volunteers are needed.

Cyd N9CV – needs to be relieved of her HF Challenge duties due to other commitments. Eric AB9OS will assume her duties.

Field Day: Eric AB9OS – There will be a Field Day next year.

eQSL: Bill NF9D – Working on the task of cleaning the eQSL logs up.

DX QSL – Jack K9JE – Bring any DX qsl's for the bureau with a copy of your member information from the front of a QST magazine.

Raffle: Chris KC9IEQ – there will not be a raffle tonight due to the program.

Program: Search for Amelia Earhart by Rod Blocksome, K0DAS.

Education: Eric AB9OS – The final VE session for the year is November 19, 2009. He wants to hold a general class before it.

Member Announcements

None due to the program.

New Business

The October 6, 2009 Board meeting will be at Rasmussen College in Aurora, IL.

The October 13, 2009 General meeting will be at Rasmussen College in Aurora, IL.

The November 3, 2009 Board meeting will be at Rasmussen College in Aurora, IL.

The November 10, 2009 General meeting will be at Rasmussen College in Aurora, IL.

Motion to adjourn by Bart KC9FQA , 2nd by Larry W9OKI.

General meeting adjourned at 7:50 PM.

Respectfully Submitted:

Bill Stamps, W9WRS, FRRL Secretary

October Program Notes

By Dick Illman, AH6EZ

We know that everyone enjoyed the September program and learned about the search for Amelia Earhart's airplane that probably crashed in 1937, and how radio knowledge is helping the effort. The October meeting will go back 42 years before that event to an unveiling of the Marconi Coherer which became the first commercialized Morse code receiver. The history of these devices and the Marconi efforts will be described and then a 2009 version, built by AH6EZ will be demonstrated, including a miniature (FCC legal) spark gap transmitter.

New Members

Welcome to the Following New Members:

CALL	NAME
KA9SCF	Patrick Green
WB9WLS	Robert Green

Shower Head Microphone Revisited

By Dave Holdeman, N9XU

After my original article (A Shower Head Microphone) appeared in the October, 2008 issue of QST, I received numerous emails and telephone calls praising the article, but requesting practical circuitry that could be used with it. Because of these requests I thought that an update dealing with Shower Head circuitry and other items not covered in my original article might be in order. While preparing this update, I ran across Ron Klimas's (WA1VRH) article "A Quality Desk Mike for Under \$25" in the December 1991 of QST. I had once built this microphone and it was still on hand. This treatise therefore, is a pull-together of my original article (with minor changes) plus Ron Klimas's (WA1VRH) fine article.

New Base

Since I wrote my original article, I have built three more Shower Head mics. For a base I am now using a domed 4 inch PVC end cap with a 4.25 inch inside diameter. This makes for easier construction and allows for more room inside the mic base. This extra space can be used for an isolation transformer, more equalization or a bias battery for the electret mic cartridge as needed. I have replaced the cable feed through assembly with a plastic grommet from American Science and Surplus. This has a built in plastic set screw to secure the mic cable as needed and is much more attractive than the original brass feed through.

Shower Head

My original microphone used a shower head that was similar internally to a flashlight lens assembly. It is very easy to mount an electret cartridge at the focal point of this shower head using a rubber grommet. This type of shower head can be identified by its smooth chrome or plastic bezel that anchors the grille. Some very similar shower heads are a "water miser" type with a stepped round baffle plate inside the shower head that is held fast by an extrusion in the center of the grille. This shower head can be adapted for use, but involves a lot of extra work and should be avoided if possible. It can be identified by its serrated (not smooth) gray plastic bezel holding the grille.

Amplified Mic

As mentioned, I built WA1VRH's amplified microphone some years ago for use with my Kenwood T599-D and it worked beautifully. I recently repackaged it as a Shower Head Mic and it still works well although the T599-D is long gone. The amplifier circuit board is still available from Far Circuits, 18N640 Field Court,

Bill Erickson HF Challenge Update – Mid-September 2009

By Eric Needles, AB9OS

The long summer has taken a toll on the HF challenge. Vacations and outside activities quickly replaced on-air time. But watch, as the fall approaches and we start to spend more time indoors, we should see activity for the HF Challenge pick up. Remember it's never too late to begin working on it, and everyone who participates, regardless of number of contacts, will receive a beautiful certificate at the FRRL Banquet in January. The certificates are always presented by Joe, NA9A, who mentions "no asterisks this month, but we all hope to get one of the top "asterisks", the FT5GA, now active on Glorioso Island."

Speaking of getting back on the air...fall is a great time for contesters! Please see the Upcoming Contest section on page 6 to read about contests that can boost your HF Challenge score.

Another fun contest through the ARRL was the recent celebration of the 140th anniversary of the birth of ARRL's co-founder and first President, Hiram Percy Maxim, W1AW! Maxim, born September 2, 1869, decided a national organization for amateur radio was in order after he needed a "relay" station in Agawam, Massachusetts to pass a message he was sending from Hartford to Springfield, Massachusetts. In honor of his birthday this year, the ARRL held a week-long special event, where eligible amateurs added /140 to their call signs. Hams who worked at least 25 /140 stations earned an attractive certificate. Your author has already sent away for his.

Please remember to send updates for the HF challenge to hfchallenge@frrl.org by the 18th of each month for inclusion in the following newsletter. And now for the numbers...

Limited Class	States	Provinces	DX Countries	Total
K9ARZ-PSK31	50	9	119	178
K9MMS-CW	50	10	110	170
KC9FQV-Digital	32	4	13	49
AB9OS-CW	14	0	1	15

Operator Class	States	Provinces	DX Countries	Total
K9BQL	48	12	156	216
W9DTR	50	11	103	164
K9TCD	41	7	63	111
KC9DAO	43	6	53	102
K9IH	43	6	45	94
WB9CHY	40	4	34	78

QRO Class	States	Provinces	DX Countries	Total
AH6EZ	50	13	187	250
NA9A	43	8	173	224
N4LZ	47	9	100	156

Ragchewer Class	States/Prov.	DX Countries	Total
W9DTR			51
AH6EZ			26
KC9FQV	17/2	4	23
K9IH			21
NA9A	9	5	14
AB9OS	2		2
WB9CHY	1		1

(Shower Head Microphone Revisited Continued from page 3)

Dundee, IL 60118 for \$4.00 plus shipping. Far Circuit's email address is: farcir@ais.net and its web site is www.farcircuits.net. I noticed that my amplified mic was quite sensitive and tended to pick up rumble from one of the power supply blowers. Placing it on a computer mouse pad solved the problem. Most modern rigs do not require an amplified mic, but I mention it here only for reference.

Non-amplified Mic

Figure 1 shows the circuitry I am using with my 2 meter Kenwood TR-7950. The 9 volt battery feeds bias to the mic cartridge. I use the same circuitry for My ICOM 718 and Ten Tec Argonaut V except that the bias voltage comes directly from the radios via the mic plugs and the battery is not needed. I use shielded mini coax for the audio connections. For a mic cartridge, I now use a Radio Shack 270-090 cartridge instead of the one specified in my original article. This is a two terminal cartridge and requires a dropping resistor to feed the positive bias to the audio lead. This dropping resistor also controls the output impedance of the cartridge. If you want to feed a 10,000 ohm load, use a 10,000 ohm resistor.

Isolation Transformer

I am using 450 ohm feed line from my HF antenna to a balun located just inside the house. The feed line tends to radiate and cause "RF in the shack." I was plagued with RF getting into my mic audio until I installed an isolation transformer in all my Shower Head mic bases. I use a 10,000 ohm to 500 or 600 ohm transformer depending on mic input impedance requirements of my 3 radios. The isolation transformers have completely eliminated any RF feedback problems.

Equalization

C1 and R1 are mounted on perfboard and are laid out as shown in figure 1. C1 can be increased in value if a little more base response is desired. Try any value between 0.22 and 1 ufd.

Push to Talk

I have tried using a spring loaded toggle switch or a push button switch as a push to talk switch, but I find neither arrangement very handy. A normal DPST toggle switch works fine once one is used to it. One set of contacts operates the PTT circuitry and the other set connects the electret bias voltage source.

Bibliography

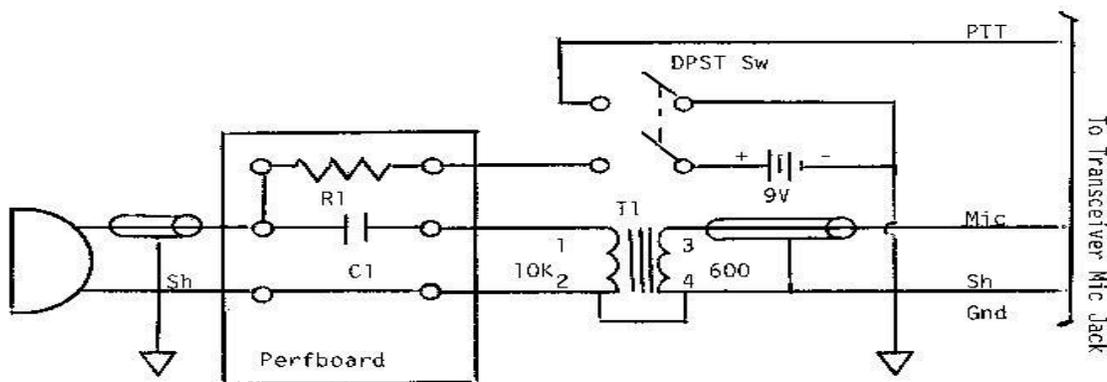
1. A Shower Head Microphone by N9XU October, 2008 QST.
2. A Quality Desk Mike for Under \$25.00 by WA1VRH December, 1991 QST.

Photos

For pictures of the Shower Head Mic, kindly refer to the original article in the October, 2008 QST.

Parts List and My Sources For a Non-Amplified Mic

<u>Item</u>	<u>Cost</u>	<u>Source</u>
Shower Head	\$ 2.88	Wal-Mart
4 1/2" PVC end cap	\$ 4.19	Home Depot
Escutcheon & 6" shower arm	\$ 3.99	Home Depot
Plastic feed through	\$.35	American Science & Surplus
Mic cartridge 270-090	\$ 2.50	Radio Shack
Perfboard 276-148	\$ 1.99	Radio Shack
R1, 2.2K 1/4 watt 271-1325	\$.99	Radio Shack
C1, .22mfd metal film capacitor 272-1070	\$ 1.49	Radio Shack
DPST toggle switch 691-2BK62-73	\$ 8.19	Mouser
8 pin mic plug 274-025	\$ 3.99	Radio Shack
Isolation transformer #27780	\$ 8.00	Fair Radio
Total	\$38.56	



Notes

For R1 and C1 Values see text

T1 Fair Radio Stock #27780 10K to 600 Ohm Isolation Transformer

9V battery not needed if voltage is available at Transceiver Mic Jack

Figure 1

Upcoming Contests

October 18 from Noon-8pm local time is the Illinois QSO Party. Please include our club name when submitting your log. The FRRL always does well in the contest, but more participants will help us climb higher near the top!

The 50th CQ-WE (Western Electric) contest will be held the weekend of November 14-15. Scoring is number of location codes worked times years of service times number of contacts. In honor of the 50th anniversary of the contest, old location codes such as The Hawthorn Works, and the Teletype Works in Skokie have been reestablished. The contest is open to all amateurs. Non-Bell System amateurs are given a special location code so they can participate. For information go to cqwe.cboh.org.

The 45th CQ-TP (Telecom Pioneers) contest is scheduled for December 5-6. It is open to all amateurs who were or are Telecom Pioneers. This includes past or present members of the Bell System or independent telephone companies who had or presently have Pioneer chapters assigned to them. For information go to tpqso.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 Rasmussen College in Aurora, Illinois. Information tables are open at 7:00 PM, and 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 at Rasmussen College, 2363 Sequoia Drive, 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, 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 November 17, 2009 Rasmussen College.

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.

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

Check with the Treasurer for details and additional dues rates.

Fox River Radio League

Founded 1924

Mailing Address:

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60510-0673

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info@frrl.org

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http://www.frrl.org

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Vice President

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FRRL CLUB MEETINGS ARE HELD AT RASMUSSEN COLLEGE, 2363 SEQUOIA DRIVE IN AURORA.
PLEASE CHECK THE FRRL WEB SITE FOR A MAP TO THE MEETING LOCATION.
<http://www.frrl.org>

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

FRRL Event Calendar

October, 2009

FRRL Board Meeting 6
SDR SIG..... 10
FRRL Meeting 13
General Class..... 17
General Class..... 24
General Class..... 31

November, 2009

FRRL Board Meeting 3
FRRL Meeting 10
VE Session 17

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 or via U.S. Mail. Contact the Editor for details and submission guidelines.

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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—145.270 Mhz (-0.600 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.
- Illinois DStar Net - Wed. Eve. at 8:00 pm local time on the DStar 440 repeater.