

# HAM RAG



Visit our website for more club and area ham information  
In the Rockford area at <http://www.w9axd.org>

## RARA Mission Statement

A member association with common interest of public service to the community through the use of amateur radio.

## 2010 RARA PICNIC



## September 2010

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### NEXT MEETING

**FRIDAY**  
**September 10, 2010**  
**7:00 pm**

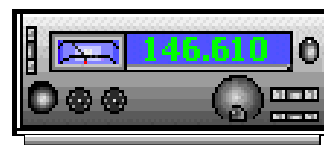
**Presentation:**  
**"HF Radio Features"**

**By:**  
**Jack Hudson**  
**W9MU**

**Location:**  
**St. Anthony**  
**Medical Center**  
**Foundation Room**  
**5666 E. State Street**  
**Rockford, IL**

**FRIENDSHIP NEVER TASTED SO GOOD !!!**

Latest news and events on our web page: <http://www.w9axd.org>



## From the Vice President

September 2010

Well, I was able to get my antenna down, fixed, and back up. It took a couple of weeks but I was able to get it done in between some of the really hot weather that we had. Now all I have to do is get on the air. One of the things that I like about my Gap Titan is that you don't have to mess around with the SWR. It typically is low no matter which band you are on. A Yagi antenna is better because you can rotate it to point where you want the signal to go but not everyone has the real-estate to support one.

Our September meeting program guest speaker is Jack Hudson, W9MU. He will be taking about **HF radios .... Survey of features... no sales pitches**. This should be especially helpful to our new hams or those who are looking at buying a new radio. He will explain the various features and how to use them. I am looking forward to this presentation to grasp a better understanding of several of the features to improve my success making HF contacts.

Election of club officers will take place at the October meeting. This is our opportunity to get new blood running the club. Please consider offering your services. Starting in the October Ham Rag there will be a nomination form for Ham of the Year. The Ham of the Year selection will take place after the December meeting and awarded at the January banquet. Nominees must be RARA members who have done outstanding work for the club or ham radio.

All those who attended the family picnic in August had a good time. The weather was good as was the food and socializing. Thank you Al, KD9CA and your bride Joanne for a job well done.

73,  
Gene, KA9BOD  
2010 RARA VP

### **UPCOMING RARA EVENTS**

**September 3,4,&5th** - "On the Waterfront" Fundraiser

**September 10** - General RARA Meeting 7:00 pm at OSF  
"HF Radio Features" by Jack Hudson, W9MU

**September 28** - RARA Board Meeting 7:00 pm at OSF

**October 8** - General RARA Meeting 7:00 pm at OSF  
"Repeaters, how they work & repeater etiquette" by Chuck Ingle, AB9KA

**October 26** - RARA Board Meeting 7:00 pm at OSF

# Secretary's Report



## RARA Club Meeting August 13, 2012

The meeting was called to order by President Gordon Seaman, KC9NEX, at 7:06 pm. There were 17 members in attendance.

**Secretary's Report:** Al, KD9CA, stated that the minutes were published in the July *Ham Rag* and copies were available for anyone who needed one. John, N9OTC, made a motion to accept the minutes as published and Chuck, K9SAN, seconded the motion. The motion carried.

**Treasurer's Report:** Paul, K9RNR, read the report for the period June 29 through July 24, 2010.

Income:	\$157.00
Expenses:	\$98.17
Net income/loss:	\$58.83
Ending checking balance:	\$1446.48
Ending Repeater Checking balance:	\$49.39
Ending savings balance:	\$3214.02
Ending total cash on hand:	\$4709.89

Dave, W9MG, made a motion to accept the report as read and Gene, KA9BOD, seconded the motion. The motion carried.

### Old Business:

Gene, KA9BOD, reported that most all of the donated equipment has been sold.

Gordy, KC9NEX, stated that a chair person was needed for the nominating committee as soon as possible.

He also said a chair person was needed for the Awards Banquet and if no one stepped forward we would not have the banquet. He reported that Gene, KA9BOD, has agreed to chair the Ham of the Year Committee.

Gordy, KC9NEX, asked for volunteers to man the ticket booth at *On the Waterfront*. He said numerous spots were still open. Gordy said there would be an *On the Waterfront* meeting on August 19<sup>th</sup> at 5:30 pm at the Common Area Stewart Square for supervisor training.

Gene, KA9BOD, reported there will be a Technician training seminar at Rock Valley College in October and a General License training class in November each running for three Saturdays 8 am to 1 pm. Course price \$35.00 including text book.

### New Business:

John, N9OTC, presented a copy of an email from the FCC. A discussion followed and it appeared there was a mistake made by the writer of the email. Gordy, KC9NEX, said he would contact the sender of the email and get it corrected.

Gordy, KC9NEX, reported that Don, W9DRR, would be leaving the area for a new job and would be gone by the end of August. Gordy said we will need a new Trustee for the Club call sign W9AXD.

Steve, W9SWT, then gave an informative presentation about ARES. The Amateur Radio Emergency Service.

Before the meeting adjourned, Gene, KA9BOD, said next month Jack Hudson would discuss all the features of HF radios.

Submitted by,  
Al, KD9CA  
RARA Secretary



## **AFGHAN TO BE RAFFLED OFF AT NOVEMBER MEETING**

John Olson's, W9JGO, wife has graciously made an afghan and has donated it to RARA and will be raffled off at the November club meeting. Tickets will be available at the meeting for \$1.00 each. Something really nice for the cold winter months ahead. Thank you John and your wife!



### **RARA Information Net**

The purpose of the net is to disseminate RARA related information as well as other Amateur Radio related information. As a club sponsored activity, please check in with Net Control and help make this net a success. The Net Control is rotated between the club members, with all amateur radio operators encouraged to check in. (RARA members as well as non-members)

Let any of the officers and board know your thoughts and ideas. If you wish to be a net control operator, let any of the officers know. All are encouraged and welcome to participate.

**146.610 (pl 114.8) repeater at 8:00 pm, every Monday, except on holidays.**

**RARA BOARD MEETING MEETS ON THE LAST TUESDAY OF THE MONTH AT 7 PM  
St. Anthony Medical Center 5666 E. State St. Rockford, IL**

### **FRIDAY MORNING BREAKFAST**

Meets every Friday morning from 8 am until about 9:30 am. An informal gathering of ham folks, no affiliations necessary, good food and good company.

*Everyone is welcome to attend.*



***"The Stockholm Inn"***  
***2420 Charles Street***  
***Rockford, IL 61108***



## VHF Contesting School: Logging by KC9BQA, edited by KE9N

Let's discuss how you properly log a VHF/UHF contest. I'll get to that but first, let me clear up a potential misconception or two.

- 1) You do not have to be an ARRL member to get involved in ARRL contests.
- 2) You do not have to officially submit a log to ARRL to get on the air and enjoy contesting.
- 3) You may simply "hand out points" on an informal basis. This is better than nothing.

Having said that, I do keep logs, and submit my score to ARRL. I keep the logs because they are fun to go through after the contest is done. I submit because I want the contest sponsor to know they had participation. Finally, having cracked Top 10 in the USA a few times for my category (Single-Op, Low Power), I do enjoy a nice certificate!

Since this is geared toward beginners, do paper logging if you want. I did this for some years. I realize most have a favorite logging program or two. I now use N3FJP for logging. There are others. If you have a favorite, tell me about it and help others make their choice. Or Google VHF Contest Logging Software (or Programs) and see what comes up. Some choices that might come up would include N1MM, Write-log, Roverlog (lot of guys say works fine for fixed stations, too). There are many options.

But if you're a beginner, a paper log is fine. Stick with the basics for now.

The format is:

BAND MODE TIME CALLSIGN GRID WORKED

You also want to note the calendar day, but you don't have to write that down for every contact, just keep track of when you switch over to a new day. If you use a logging program, make sure it's entering the correct date.

BAND means either "50" (6 meters), "144" (2 meters), "222" (1.25 meters) or "432" (70 cm) There are bands beyond 432 that are used in contests, such as 902, 1296. Don't know of any beginners that are on the microwaves, though. Even if you make FM contacts on say 52.525, 146.xx, 223.5 or 446.0 in a contest, you still want to log those bands as "50", "144", "222" and "432" Trust me on that. The robot at ARRL that processes log submissions will reject anything but those numbers. Worry about submitting to ARRL after the contest. If you're confused, often a friendly veteran can walk you through the process. You have up to 30 days after the contest, so deal with submitting the log later.

MODE means either "PH" for phone (any voice, SSB or FM) or "CW". Those are the two choices.

TIME means the minute you exchanged grid squares and rogers. My understanding is being off 1 or 2 minutes is OK, but be accurate anyway. UTC time is what ARRL will want to see. You can convert after the contest, if need be. Or just do UTC time and save a step later. In central time zone, UTC is 6 hours ahead of us in the winter and 5 hours ahead after we turn the clocks ahead in spring. For instance, the Jan ARRL VHF Sweepstakes starts at 1:00pm central time Jan 23, 2010. This would be 1900 in UTC time.

Also remember that when using UTC time, you move to a new day at 6pm in the evening local time. Why? 6pm central time + 6 hours for UTC = 0000 in UTC time. That's why the ARRL website says the contest ends at 0400Z on Monday, Jan. 25, 2010. It's really 10pm central time Sunday night.

## VHF Contesting School: What Bands and Frequencies by KC9BQA, edited by KE9N

**CALLSIGN** means the callsign of the station you worked. Take the time to get it right. You will hear a lot of phonetics being used in VHF contests. This is for the sake of accuracy. Avoid busted calls as much as possible.

If you work a rover station, then you need to add /R to their call. Meaning if you work me at home, I am KC9BQA for your log. If I were out roving, then I'd be "KC9BQA/R". Make sure you log rovers with the "/R". If you are out roving, then sign with the /R, too.

(Again, I will devote a separate post to explaining roving)

**GRID WORKED** — Enter the Maidenhead Grid Square for the station you just worked. Exchanging call-signs, grid squares and rogers for that information is all you need for a valid VHF contest QSO. Don't enter your own grid square, enter the one for the station you just worked.

If you want to know your grid square right now, do this: Go to [www.qrz.com](http://www.qrz.com). Enter your own callsign in the top left. Once you see your own info on the next page, click where it says "click for more detail". 10 lines down it will show your grid square. Just use the EN63/53/62/52, whatever. Don't worry about the extra 2 small letters at the end. Those are there to narrow down your location to a pinpoint. But they aren't important for this contest, or for a beginner.

Click on [http://www.oema.us/files/Amateur\\_Radio\\_US\\_Grid\\_Square\\_Map.pdf](http://www.oema.us/files/Amateur_Radio_US_Grid_Square_Map.pdf) for a colorful grid map. If you want to do further study, Google Maidenhead Grid Squares

If you keep track (whether on paper or a computer logging program) of BAND, MODE, TIME, CALL-SIGN and GRID for each contact you make in a VHF contest, you will be all set to submit your log, once the contest is done.

For now, let's not worry about log submission. That's all post-game stuff. You have up to 30 days to submit your log, so it's not an immediate concern.

### \$\$\$ ITEMS FOR SALE \$\$\$

**Kenwood TS-440S HF transceiver** 160 through 10 meters, includes internal antenna tuner, microphone and optional CW and SSB filters installed. Good condition. \$450.00

Matching **Kenwood PS-50** power supply 20A. \$75.00

**Kenwood desk microphone model MC 60A** with built in pre-amp. Purchased 2007 \$100.00

**Mirage amplifier model D1010**, 430 to 450 MHz 10 watts in 100 watts out. \$250.00

Original owner all units, if interested call Al, KD9CA 815-885-3926.



This week, we saw three days -- August 21-23 -- with no sunspots, and the average daily sunspot numbers for the week -- August 19-25 -- declined over 28 points to 8, compared to the previous week. The average daily solar flux was down more than 8 points to 75.3. The last period of three days or more without sunspots ended on May 20, 2010, about 100 days ago. Sunspot numbers for August 19-25 were 11, 11, 0, 0, 0, 11 and 23, with a mean of 8. The 10.7 cm flux was 77.9, 77.1, 75.5, 74.6, 74.9, 73.6 and 73.5, with a mean of 75.3. The estimated planetary A indices were 5, 4, 3, 4, 7, 18 and 20, with a mean of 8.7. The estimated mid-latitude A indices were 3, 1, 3, 0, 5, 13 and 15, with a mean of 5.7. Remember: The sunspot number is not the same as the number of sunspots. The smallest non-0 sunspot number is 11; it gets 10 points for being a sunspot group and one point for containing one sunspot. The sunspot number of 23 on August 25-26 represents two sunspot groups at 10 points each -- one containing one sunspot (1 point) and the other containing two sunspots (2 points). On August 25, it appears that a new smaller sunspot may be emerging between the eastern horizon and sunspot group 1101.



The Chicago FM Club presents

# RADIO EXPO 2010

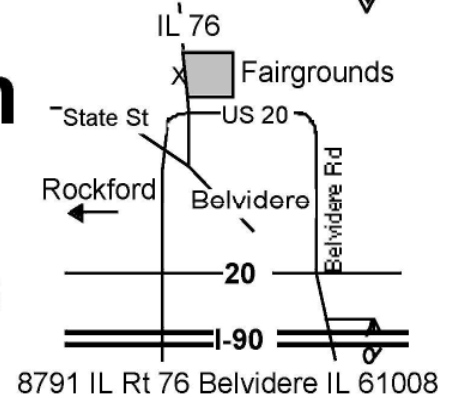


## Saturday September 25th

Grounds Open from  
Friday at noon  
Flea Market open - 6 AM  
Exhibit Buildings open  
8 AM to 3 PM

### BOONE COUNTY FAIRGROUNDS US Rts 20 & IL 76 Belvidere IL

42° 16' 54" N / 88° 51' 7" W



Radios | Computers | Electronics for everyone!

Newest amateur equipment from major manufacturers  
Computer hardware and software by leading distributors

2 large buildings (over 17,600 sq ft) available for indoor flea market tables

Large areas for outdoor flea marketing conveniently located around the fairgrounds

Advanced tickets \$8 - At the Gate \$10- Kids under 12 free

FREE PARKING - Outdoor elect hookups available - VEC testing 9 - 12 Noon

On grounds Breakfast and Lunch available

RVs/Motor Homes - Water - Electric \$25.00 - No Waste Service

Talk-in on the CFMC repeater 146.76 - (107.2 Hz PL) / WX9MCS 147.255 + (114.8 Hz PL) / 444.725 + (107.2 Hz PL) echolinked to 146.76

Questions ??? Call Radio Expo 708.457.0966

or visit our web site at <http://www.chicagofmclub.org>

Name \_\_\_\_\_ Call \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ Phone \_\_\_\_\_

Table Reservations for both buildings-\$20.00 per table (8ft long) \_\_\_\_\_ x \$20.00 = \_\_\_\_\_  
4 or more tables - \$15.00 each \_\_\_\_\_ x \$15.00 = \_\_\_\_\_

Building assignment at discretion of CFMC / Do not mail table / ticket requests after Sep 11, 2010

Advanced sale tickets - \$8.00 - REQUIRED with tables \_\_\_\_\_ x \$8.00 = \_\_\_\_\_

Electric - inside - \$10.00 \_\_\_\_\_ = \_\_\_\_\_

Outside electric - Flea market - \$10.00 \_\_\_\_\_ = \_\_\_\_\_

Total ..... = \_\_\_\_\_

Make check out to: CHICAGO FM CLUB & send to: 5127 N. Monterey Dr. Norridge IL 60706-3245  
Remember to send a #10 (4 in by 9.5 in) self-addressed stamped envelope with your request.



# Finding The Right Spot

Ever think about matching a balanced antenna by moving the feed point? How would you find the desired impedance spot using simple math? Let's think about feeding a dipole at a 200 Ω spot, off-center, just for the experience. We measure the impedance of the center fed antenna and find it is  $76 + j4 \Omega$ . The antenna is 33.96 feet long, with 16.98 feet each side of center. It is cut for 14.225 MHz.

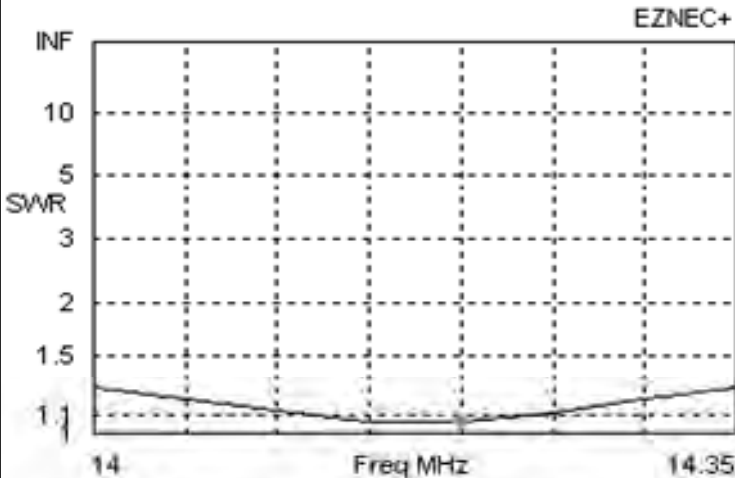
Power radiated is approximately the same at every point over the entire antenna.  $P_{@center} = I_{@center}^2 \times R_{@center} = I_{@200}^2 \times R_{@200}$ . Current follows a sine curve distribution with 0 current at the 0° and 180° points, and a maximum in the center of the antenna (90° point). Assume we are putting 1 amp of current into the antenna at its center, then  $P = 74$  watts.

At the 200 Ω point current will be described by  $I^2 = 74/200$ , or  $I = 0.608$  amps. On our sine curve the Y axis represents current, and the X axis represents degrees. Thus,  $0.608 = \text{sine } X$ . Arcsine X is 37.46°.

$37.46^\circ/180^\circ$  gives us our location of 0.2080 (20.8%) distant from the end of the antenna. In feet that is  $33.96 \times 0.2080 = 7.063$  feet from an end. This is our 200Ω feed point.

A modeling check with EZNEC reports  $191 -j0 \Omega$  at the off center feed point at 14.175 MHz. The small difference in the source impedance results from how the antenna is segmented in EZNEC, and our inability to place the source at exactly 20.8%. The pattern and efficiency were reported by EZNEC to be the same as for this antenna fed on center.

Now we can transmit power to our dipole using 50 Ω coax, a 4:1 balun, and enjoy a nearly perfect match. Below is the VSWR curve centered to mid-band. Life is good!



Freq	14.2 MHz	Source #	1
SWR	<b>1.061</b>	Z0	200 ohms
Z	192.9 at 2.66 deg. = 192.7 + j 8.959 ohms		
Refl Coeff	0.02949 at 128.03 deg. = -0.01817 + j 0.02323		
Ret Loss	30.6 dB		



## AMATEUR RADIO EXAM NOTICE

August 21st there was 1 applicant resulting in 1 upgrade

Upgrade

Douglas Abrahamson, KC9SDO, General

Northern Illinois Volunteer Examiners will be holding the next Amateur Radio exam session in Rockford, IL on Saturday, September 18, 2010.

Location:

St. Anthony Hospital

5666 E. State Street

Rockford, IL

Exams will be held in the St Francis Room (just right of the front entrance after you enter).

Check-in is from 9:00 AM til 10:30 AM.

What You Need To Bring To A W5YI-VEC Session

1. Your original Amateur License (unexpired or within the 2 year grace period) and a copy to attach to the paperwork.
2. Any valid CSCE that you are using for credit. Again the VE's have to see the original and have a copy to attach to the paperwork.
3. Two forms of Identification with your signature on them. One must be a picture ID (drivers license, passport, school ID, library card, credit card, etc.)
4. Test Fee \$14.00 cash or check. (please make checks payable to W5YI-VEC)

Contact Information

Randy Scott, W9HL

W9HL@arrl.net

815-877-4328

### AREA Repeaters

146.610 -	ENC/DEC pl 114.8	W9AXD
147.000 +	ENC/DEC pl 114.8	W9AXD
223.880 -	ENC/DEC pl 118.8	W9AXD
<b>ATV</b> input 1250 Mhz/ 434 Mhz		W9ATN
	output 421.25 Mhz	
146.805 -	ENC/DEC pl 114.8	K9AMJ
224.440 -	ENC/DEC pl 118.8	K9AMJ
147.255 +	ENC/DEC pl 114.8	WX9MCS
444.725 +	ENC/DEC pl 107.2	WX9MCS
	Linked to FISHFAR	

### 2010 RARA Officers and Board

#### **Officers:**

President - Gordon Seaman, KC9NEX, 815-234-5034  
Vice President - Gene Stankiewicz, KA9BOD, 815-226-1806  
Secretary - Al Fischer, KD9CA, 815-885-3926  
Treasurer - Paul Franklin, K9RNR, 815-298-2251

#### **Directors:**

Shari Harlan, N9SH, 815-398-2683  
John Lawrence, N9OTC, 815-397-4624  
Tom Shouler, N9VJU, 815-877-9129  
Steve Thorne, K9LLI, 815-399-9161  
Web Master - Robert Larson, KC9ICH, 815-226-1875  
Ham Rag Editor - Kurt Eversole, KE9N, 815-389-2784  
Repeater Chairman - Chuck Ingle, AB9KA, 815-979-1049

### Editors Note

If you would like to have something published , please call me or email me at [ke9n@arrl.net](mailto:ke9n@arrl.net).

**Cut-off for the October 2010 Hamrag will be Tuesday, September 28, 2010**

Kurt - KE9N, Editor



P.O. Box 8465, Rockford, IL 61126

Website: www.w9axd.org

E-mail: ke9n@arrl.net

Nets

Monday 8 PM	RARA Info.	146.610 - 114.8
Thursday 7 PM	ARES	147.195 + 114.8
Thursday 8 PM	SATERN	146.610 - 114.8

place address label here

# September 2010

## ROCKFORD AMATEUR RADIO ASSOCIATION MEMBERSHIP APPLICATION

Single Adult: \$25.00 Adult w/Family: \$30.00  
 Single Senior: \$15.00 Senior w/Family: \$20  
 Student: \$15.00

Above rate includes the RARA monthly newsletter, Ham Rag, via email.

Ham Rag Via U.S. Postal Service: \$12.00 extra

Name \_\_\_\_\_ Call Sign \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Home Phone \_\_\_\_\_

Work Phone \_\_\_\_\_

Email \_\_\_\_\_

Renewal \_\_\_\_\_ New \_\_\_\_\_ Retired \_\_\_\_\_

Radio Interests \_\_\_\_\_

Other Interests \_\_\_\_\_

Suggestions: \_\_\_\_\_

RETURN COMPLETED FORM TO:

ROCKFORD AMATEUR RADIO ASSOCIATION  
 P.O. BOX 8465  
 ROCKFORD, ILLINOIS 61126