HAMRAG

Visit our website for more club and area ham information at ***http://w9axd.org****, or join us on Facebook at this* ***LINK***

ROCKFORD AMATEUR RADIO ASSOCIATION

RARA Mission Statement

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

May2020 2017

INSIDE THIS ISSUE

Presidents Message

Fellow Members of RARA,

This is to announce that the club will meet on the air This Friday night at 7 pm on the 146.610 repeater. The PL is 114.8 with a minus off-set. Things under discussion will be the repeater, what about a local contest for Field Day? How about a back yard picnic on the air where we all set up a station in our back yards with family only and talk to each other via the repeater? Hopefully you can come up with better

We can then discuss any technical questions that you might have, be-cause we have some of the brightest guys around to talk about repair-ing a problem or putting up an antenna. Join us Friday at 7pm, and then stick around for Jim's Friday Night Fun Net. BE THERE OR BE SQUARE. Sorry, just had to do it. See you Friday.

73 Larry AC9GO

ps: Tell your Ham friends that aren't RARA members to come join us. By the way the Echolink is live on the 610.

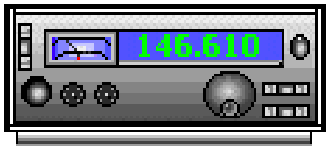
NEXT MEETING

May 8th

Live

On AIR

146.610 Repeater



RARA is looking for a new Web Master:

If you have some skills at managing a Web site and would like the oppor-tunity to create one from the ground up, talk to one of the Officers or Directors at the next meeting.

MFJ-1982MP EFHW Antenna Review by KD9MAP

After returning to the radio hobby in 2018, I started out running QRP on random-wire antennas. In December 2019, I decided to step up to a 100W rig, the Flex 5000. This higher power exacerbated my problems with using random-wires:

1) Tuning is very sharp on a random-wire, too sharp for an ATU to handle, so I use a manual Dentron T-network tuner. You get only a couple dozen KHz of usable bandwidth per tune, and the antenna system can go out of tune unexpectedly.

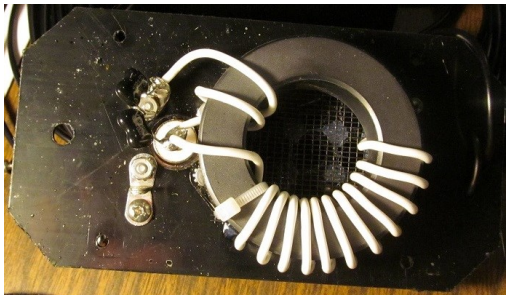
2) It's a hassle to QSY with a manual tuner. I used an antenna switch to switch my antenna system between the transceiver and an antenna analyzer. Anytime I wanted to QSY, I'd switch in the analyzer and tune for the new frequency, which takes a minute or two of fiddling.

3) Worst of all, above QRP transmit power levels, I got an unacceptable amount of RF back into the shack, which often crashed the PC I use to control the Flex. This happens despite the fact that all chassis are grounded, and I have ferrite beads on every PC cable.

So I knew I needed a better antenna. I asked on the Friday Night VHF Tech Net about EFHWs, and Kurt KE9N gave me a valuable tip to check out Steve Ellington's YouTube videos about EFHWs. This convinced me that EFHWs aren't a gimmick; they really do work. I measured my property lot using Google Earth, and made sure I had room to put up a 132 foot 10-80 EFHW; it just barely fits.

I'm a cheapskate, so I went with the $80 MFJ-1982MP EFHW 10-80 meter wire antenna, which has been around since 1982 I think. I mounted it between a second-floor window and a PVC pipe mast, more or less horizontally, average 15 feet above ground, 25 feet below HAAT. I still have the option to raise it high up into an adjacent tree whenever I feel like putting up a lanyard. I feed it with 50 feet of RG-8X, $25 on eBay with the PL-259 connectors attached. The transformer is grounded to an 8-foot ground stake.

The MFJ-1982MP uses a similar kind of 49:1 impedance-matching, 7:1 winding-ratio, toroidal transmission-line transformer that Ellington discusses.

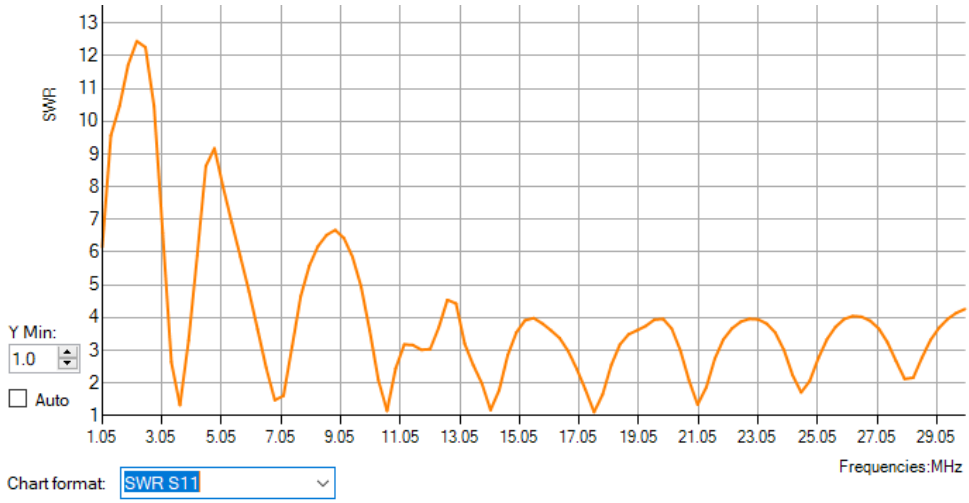


The MFJ transformer is different from Ellington's transformer in a few ways:

1) Ellington says to use enameled wire in the transformer; MFJ uses PVC insulated wire.
2) Ellington's toroids are bifilar wound; MFJ's is not.
3) Ellington's toroid has a mysterious "crossover" winding in the middle of the secondary; MFJ's does not.

If I am ever dissatisfied with the MFJ, or decide to put up another EFHW on the other side of my lot, I can inexpensively build my own transformer using Ellington's presumably better specs.

Here's how my EFHW looks on the antenna analyzer:



It's really amazing that such a simple inexpensive antenna, hung so low, can work so well. Now I can finally use the Flex built-in ATU, and QSYs are so much easier. I'm able to transmit on 80m and 40m without crashing my PC, although I do still see a bit of RFI "shimmer" on the PC screen. But I do get good signal reports nevertheless. I work two 75m nets every day now.

I still have occasional PC crash problems transmitting on 20m, but I think this is due to the fact that my station is on the second floor, and therefore my ground cable is rather long. An asymmetrical antenna like an end-fed depends on a good quality short-distance ground, especially the higher you go in frequency. I considered adding radials to the ground stake, but I've read that dozens of radials are needed; only 4 or 6 won't make a difference. So at this point, if I want to work 20m reliably, I'll have to move the station into the basement, or maybe I can get away with using an "artificial ground" tuner, which supposedly tunes out the reactance of a long ground cable.

Overall the performance of the EFHW is clearly superior to that of a T-tuned random-wire, good enough that I will probably eventually add another EFHW, perhaps a 10m-40m model, on the other side of my house. I prefer to stick with wire antennas because they are inexpensive and easy to put up. One thing I've learned from talking with hams over the past year is that Mother Nature hates antennas, and works as hard as she can to damage them and knock them down. In such a case, I'd rather replace a wire than a more expensive antenna.

73 DE KD9MAP

AMATEUR RADIO EXAM NOTICE

There will no longer be testing available in Rockford.

Contact Brandon for more information as to the Freeport IL testing times and location.

Brandon J McGrew bmacmagoo@hotmail.com There is also testing available in Janesville. Contact wi9fry@gmail.com For mote info.

2020 RARA Officers and Board

Officers:
President - Larry Schubert, AC9GO, 815-624-7772, larry.schubert@gmail.com
Vice President - Dan Hallstrom, KB9LOJ, 815-229-7526, hallstrom@gmx.com
Secretary - Jennifer Van Zieleghen, KD9FMJ, 815-222-4221, jenleek@usa.com
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Webmaster - open
Repeater License Trustee - Gordon Seaman, KC9NEX, 815-262-0294, kc9nex@gmail.com

Local Events and Information

UPCOMING EVENTS

MAY, 2020 - On Live Radio
JUNE, 2020—????

RARA Repeater Information

Both repeaters (146.610 and 147.000 (both have a pl 114.8)) will function with both digital and analog radio signals, but the repeaters require time to determine whether the signal is digital or analog. To operate the repeater properly you must first be sure the frequency is clear, then key and hold the microphone button down for **1-2 seconds**. Then begin speaking. If you fail to do this, the first part of your message will be lost.

Area Nets

Monday Night 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 Jimmy, KC9GCR, (net control). **146.610 - offset (pl 114.8)** RARA repeater at 8:00 pm, every Monday, except on holidays.

Friday Night Fun Net - Every Friday night at 8:00 pm on the **146.610 - offset (pl 114.8)** RARA repeater with Jimmy, KC9GCR, as net control.

Tuesday Night Health Net—146.610 hosted by Larry AC9GO , 7 pm

Thursday Night Health Net— 147.195 hosted by Bill KC9OJP, 7 pm

RARA Membership Form

If you would like to join the Rockford Amateur Radio Association, please fill out the form below and mail it (with the membership fee payment) to the address shown at the bottom of the form. If you would like to join at our next meeting (see cover for meeting details), fill out the form and bring the form with your payment to the meeting and see our treasurer. **Thank you for your support!**

ROCKFORD AMATEUR RADIO ASSOCIATION

MEMBERSHIP APPLICATION

website: w9axd.org

Membership Type: ☐ New (New memberships after July 1st are 1/2 price) ☐ Renewal

Annual Fees: ☐ $20 - Student (up to age 24)

☐ $35 - Adult (25-61 years old) ☐ $25 - Senior (Starts the year you will turn 62)

Above rate includes the
RARA monthly newsletter, HamRag (website download)
HamRag via USPS: $12 extra

Name: _____

Call Sign: _____

Email Address: _____

Address: _____

Town: _____ State: _____ Zip: _____

Home Phone #: _____ Work #: _____

Cell #: _____ Ext: _____

Radio Interests: _____

_____

_____

_____

May we make your phone and e-mail available for other RARA members only? ☐ Yes ☐ No

Comments: _____

_____

_____

RETURN THE COMPLETED FORM TO:
ROCKFORD AMATEUR RADIO ASSOCIATION
P.O. BOX 8465
ROCKFORD, ILLINOIS 61126

All membership applications to become either a new member or to be reinstated as a member of RARA must be approved by the RARA board.

Approved:_____ Membership Year ____/____/____ to ____/____/____

Form Updated: 01-2019