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## Cruising along...

Well, things continue to move forward. Now that we are nearly to the end of July, it is good to look back at what we have done as a club.

Our annual picnic went well. The turn out was fair and the food was very good. It is always good to gather and reconnect with our members.

Field Day is another time where we can get together and show what we can do. We have historically been a club more interested in socializing at Field Day, rather than being competitive. In spite of that, the participants at Field Day were able to accomplish a number of QSOs. The total results were encouraging.

We continue to regain ground lost due to the pandemic. Granted, our club at Field Day was still rather sparsely attended but a real effort continues to build as we recover. Our membership has not come through COVID unscathed, but by and large we are doing as well as can be expected. There is still a lot to be improved on with the organization of our events. Our membership attendance has yet to recover to the pre pandemic levels, but things continue to improve. Some of our members have had to rely upon Zoom for our meetings and some of our members are not real comfortable with meeting that way either.

We did something different for our club's annual river cruise. This year we went on a "Pizza Cruise" on the La Crosse Queen. Here again, the attendance was rather light, but a good time was had anyway. We couldn't have had a better day to do the cruise. The weather was perfect and the river was very calm and enjoyable. There were a number of tow boats that were waiting to get through the locks so as a result, we didn't go through the locks on this trip, but we did go for a cruise down river past Houska Park where there is an encampment of homeless people. It was interesting to see how many homeless people were there. As we continued down river, we saw more tow boats that were lined up waiting to go through the locks. Otherwise, the traffic on the river was mostly barge traffic, with a few pleasure craft motoring up and down the river. The pizza was ok and the beverages were nice and cold. After about 2 hours we were back at the dock in Riverside Park where a concert was in full swing in the new band shell. It as all so very pleasant.

The next thing on the club's calendar is our SwapFest in August. With the change in management at the Onalaska American Legion it has been a challenge to get everything organized. The date that we had reserved there had been reallocated to another event, so we had to move our date from August 6<sup>th</sup> to August 20<sup>th</sup> and we will be doing our own catering, which will probably be better for us anyway. It looks lioke we may be looking for another venue for next year's SwapFest. It is too bad that we may have to leave the Legion club rooms, as the Legion location is an easy place to find and has worked well for us in the past, but it is getting to be so much more work to get everything organized so that we can have a good affordable place to have our SwapFest.

Carl, KC9HDS



## PRESIDENTS COMMENTS

Greetings to all Club Members,

I hope everyone is enjoying their summer so far. As with every summer it seems, July has gone by really fast. In early July, club members along with family members enjoyed an outing on the La Crosse Queen in lieu of our monthly meeting. It was a pleasant experience for those in attendance and allowed for fellowship between hams and non-hams alike.

At the end of July, the Central States VHF Society hosted their convention here in La Crosse at the Radisson Hotel. It was a chance to go and listen to technical talks about topics ranging from Lightning Protection for Amateur Radio Towers, Advanced Yagi Design, to Chasing DX Records on 47 & 76 GHz. While I didn't get to spend as much time listening to all of the talks and presentations as I would have liked, I was able to attend the "Microwaves 101" presentation put on by W9FZ and his wife KA9VVQ who were both very sharp and knowledgeable hams on the topic.



I will be the first to admit there were sections of the presentation that were a little above my technical knowledge base to fully grasp, but I did come away from the presentation with a better understanding about this segment of ham radio. As I left the presentation, I was thinking that I would like to build my own microwave station someday. Maybe I should have hung onto that old Dish Network satellite dish that I threw away after switching to Charter Cable.



Continued on page 5



# RIVERLAND AMATEUR RADIO CLUB

## SWAPFEST

AUGUST 20, 2022

8:00 AM to 1:00 PM



Door Prizes  
Flea Market  
Buy—Sell—Trade  
Tailgating Locations Available  
Food Vendor  
Handicap Accessible  
ARRL Award Card Checks:  
DXCC, VUCC, WAC, WAS, 160m



**VE Test Session at 9:00 AM**



### Advanced Table Reserve And Entrance Form

Entrance Fee \_\_\_\_\_ x \$5.00 = \_\_\_\_\_

Table Reserve \_\_\_\_\_ x \$10.00 = \_\_\_\_\_ [Does not include Entrance Fee]

Limited electrical hook-up available on a 1st come 1st serve. Indicate here if you are requesting electrical hook-up ☐ (checking box does not guarantee availability of an electrical receptacle)

Advanced form will be held at the entrance table for you. No pre-fest mailings.

Name \_\_\_\_\_ Call \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_  
Phone \_\_\_\_\_ E-Mail \_\_\_\_\_

Mail form and fee to:  
RARC  
Box 621  
Onalaska, WI 54650

For further info call Shawn Hicks at 813-957-4057 or e-mail [eistim68@gmail.com](mailto:eistim68@gmail.com)

# Wire Yagi Antennas

Wire homebrew Yagis can perform with the better commercial aluminum Yagis. After over 60 years as an amateur with many home-built antennas I have concluded that the wire Yagi is the best performing 40-meter antennas one can construct and maintain provided one has trees or other means to support the wire elements for a Yagi. No matching device required as the impedance will be about 50 ohms at a height of about 50 ft. or more above ground. I use RG8X for up to 1500 watts SSB.

It seems that many amateurs old and new shy away from wire beams because of the complicated presentations in articles on the internet with models, and complicated formulas involving math beyond many, myself included. If interested in a 3 or 4 element wire Yagi for 40 meters, just remember 369. Someone years ago, designed a 40-meter antenna named the 369 for 40 meters. Impedance was about 50 ohms. Gain at a 50 ft height and an element spacing of about 27 ft would be around 11dBi with about 14 front to back. 27 ft is about .20 wave spacing for 7.2 MHz. .15 to .25 spacing between elements will give about 50 ohms imp. close enough to match 50 ohm coax of your choice. back to the radio.

For those of us who do not model or have a lot of math capabilities it is not a problem. I think many amateurs, new and old, shy away from wire Yagis because of the complicated presentations one is able to find on the internet. Therefore, I am passing on my experience in this article to those who are looking for simple antennas that will hang in there with the better aluminum Yagis.

Here is why: (1.) A wire Yagi properly spaced will not need a matching device for 50-ohm coax.

(2.) For mono band operation, RG 8X, the less expensive coax, will do just fine for runs up to 150 ft in my experience for power levels of up to 1500 watts SSB. I normally run 1200 watts with an occasional 1500 watts SSB for DX contacts and have experienced no failures with RG8X of good quality from DXE and The Wire-man.

(3.) My wire Yagi antennas are all mono band so that

keeps the design simple, Resonant frequency, and SWR adjustments are simple to monitor and adjust with an antenna analyzer such as a Rig Expert AA35 Zoom and others.

(4.) Here are simple design parameters by others proven over the years to work for me. A wire Yagi is simply a dipole driven element, with a Reflector and one or more directors. I have found that the old 369 antenna designed by someone years ago works great today for 40 meters. Make the Director 63 ft, the driven element 66 ft. and the Reflector 69 ft. Spacing for 50 ohms impedance is about 27 ft. This represents about .20 wave length spacing at the center frequency of 7.20 MHz. Spacing of .25 wave also works for 3 or 4 elements to give about 50 ohms impedance feed point impedance at 50 ft height above ground.

My 4-element wire Yagis at 60 ft send some power with 1200 watts SSB. If you want to design a wire Yagi for other bands keep it simple. Use the dipole formula for the driven element- 468 divided by the frequency. Make the director 5% shorter than the driven element. Make the reflector 5% longer than the driven element. Space at .15 to .25 ft wave. .20 will give around 50 ohms feed for a 3 or 4 element wire Yagi using #14 stranded copper THHN from Lowes or Home Depot.

Get the wire Yagi as high as possible although lower heights will work well depending on your soil. When you are shooting supports up over trees for a wire Yagi, nothing is exact in feet and inches so there is no way one can do an exact model installation. Rounding off and keeping all the directors the same lengths has worked well for me over many years.

It works great from my experience. Hope to hear you on the bands with a great signal from a wire Yagi.

Good Luck and enjoy the hobby.

Frank, K4RVN





## President's comments (continued)

Right away this month, we will be hosting Dr. Bob Heil (K9EID) founder of Heil Sound at our August 2<sup>nd</sup> meeting at UUF. Bob will be providing his presentation via Zoom. It promises to be an educational and entertaining event for our monthly club meeting. The club board encourages all members to attend in person at UUF if at all possible, but like every meeting held this year we will provide the Zoom link for those not able to do so.



On Saturday August 20<sup>th</sup>, RARC will be having our annual Swapfest at the Onalaska American Legion. The Swapfest starts at 8:00 AM and runs to about 1:00 PM. We have been able to get our event announced in the July QST magazine, on the ARRL website, posted on the club website, posted on Facebook, and flyers sent to a couple of local clubs; but we can never have enough publicity. Anything club members can do to get the word out helps. For a swapfest to be successful we need sellers. Please consider renting a table of your own if you have items that you would like to sell.

Until we meet in person or chat on the radio, I bid you 73.

Shawn, KD9KGQ



## UPCOMING Events for April 2022

- ♦ RARC Sunday Night 2Meter Net is held on the 146.970 repeater at 8:00 PM. Net control operators for March are:

<b>August 7, 2022</b>	<b>Rick kd9gvs</b>
<b>August 14, 2022</b>	<b>Wayne k0wlo</b>
<b>August 21, 2022</b>	<b>Shawn kd9kgq</b>
<b>August 28, 2022</b>	<b>Mark kb9ofk</b>

- ♦ **Saturday** morning Rag chew, weekly on the 146.970 repeater, 8:00-9:00 AM.
- ♦ **August 2...**Monthly club meeting at UUF La Crosse
- ♦ **August 15...**Trustee Meeting, Time: 5:30 PM, Arterial Bar and Grill. All members are welcome to attend. Notice new time and place.
- ♦ **August 20...** Swapfest at Onalaska American Legion

## BUY-SELL-TRADE-ISO



Send your Amateur related classified ad(s) to Scott, NLT  
noon the 26th of each month to [kb3mkd@arrl.net](mailto:kb3mkd@arrl.net)



Looking for items for this space

## CLUB INFORMATION



**Riverland Amateur Radio Club**

**PO Box 621**

**Onalaska, WI 54650**

- \* The Key is published monthly and e-mailed to members and friends of the Riverland Amateur Radio Club by the 28th of each month. The newsletter focuses on news, announcements and activities of the Riverland Amateur Radio Club. It may also consists of news and information of interest to the Amateur Radio community as a whole. Guest editorials and articles related to Amateur Radio are welcome. Contribution articles should be submitted NLT the 26th of the month. Address any correspondence or anything that should be included in the newsletter to: Scott Cross KB3MKD@arrl.net. Please include the word "Key" in the subject line of your submission.
- \* The Riverland Amateur Radio Club maintains a website at [rarc.qth.com](http://rarc.qth.com). More information about the club can be found there as well as past copies of The Key.
- \* RARC also maintains a Facebook page where members add information and share there Amateur Radio adventures. Please friend us at Riverland Amateur Radio Club—RARC.
- \* RARC maintains a repeater that is located on the WXOW television tower above La Crescent, MN. 146.970 pl 131.8.
- \* RARC holds a weekly 2meter net on Sundays at 8:00 PM on the 146.970 repeater.
- \* Trustee Meeting is held the 3rd Monday of the month at Arterial Bar and Grill at 5:30 PM, all club members are welcome.
- \* Program evening is held the 1st Tuesday of the month at 7:00 PM, elmer session at 6:30 PM at Unitarian Universalist Fellowship, 401 West Avenue in La Crosse.
- \* Weekly "Breakfast Club" Ragchew on the 146.970 repeater on Saturdays from 8:00 AM to 9:00 AM. Stop by to say "hi".

### **Below are listed your RARC 2022 Board of Trustees and contact information.**

President.....Shawn Hicks, KD9KGQ Email...eistim68@gmail.com

Vice-President.....David Peters, KB9EWG Email...kb9ewg@gmail.com

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