

RIVERLAND  
AMATEUR RADIO  
CLUB (RARC)  
LA CROSSE, WI



# THE KEY

ISSUE 7 FOR 2021

JULY 2021

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## A letter FROM the Editor

The annual picnic was a beautiful day for a get together. The weather was forecasted to be hot and muggy but ended up at a pleasant temperature with a nice breeze. There were plenty of topics, ranging from the upcoming Field Day planning, to the annual July Pontoon ride, and a touch of show-and-tell, and ending with a show from the Blue Angels.

I sure am glad to have in-person get togethers back, it's good for the soul. I know some folks really had a hard time being disconnected from socialization. Have a safe and happy Independence Day! Pictures courtesy of Dave, KB9EWG.

73, Kelley KD9LQW



## PRESIDENTS COMMENTS

Greetings Club Members,

With Field Day just wrapped up, I want to express my thanks to everyone involved that made it happen at Champion's Riverside Resort this year. It had been 2 years since we had an "official" Field Day activity, and sure was nice to get back together.

One of the things we as Amateur Radio operators talk about a lot is getting the next generation involved in the hobby. I wanted to share that Sunday morning at Field Day, we had several visitors, but especially gratifying to see was the two young prospective new hams that stopped by and made contacts with the help of Ron, KD9OHQ !

The ten-year old young man and his friend who were camping across from our sites were very interested in what we were doing and hung around for quite a while. Thank you also to Dave, KB9EWG, for encouraging them to visit.

A friend of Scott's, KB3MKD, also stopped by and was very interested. Getting new people involved is the type of thing we need to try to do more of, and our new Field Day venue was a big part in that this weekend.

Our next big Club event will be the Swapfest on August 7<sup>th</sup> at the American Legion in Onalaska. Please mark your calendars for that event.

After that will be our participation in Irish Fest activities in La Crosse on August 14th. Stay tuned for updates and details on this event.

Remember that the RARC Club e-mail "reflector" is out there for all Club members to post an announcement, information, or question related to Ham radio. The address is [members@rarc.qth.com](mailto:members@rarc.qth.com).

Also remember the Saturday morning "ragchew" on the 146.970 repeater at 8:00 AM.

Additionally, a reminder if you have any submissions for the Club Newsletter, The Key, please send them to our editor, Kelley Becker at [kelleyLL23@hotmail.com](mailto:kelleyLL23@hotmail.com).

For your on-line purchases, please remember to try [smile.amazon.com](http://smile.amazon.com) and designate 0.5% of your purchase to be donated to your favorite charitable organization, the RARC ! There is no cost to you and you get the same products, prices, and services as regular Amazon.

Feel free to contact me with any other comments or suggestions at [rckolter@gmail.com](mailto:rckolter@gmail.com).

73 for now,

Rick KD9GVS



## Modern Lightning Protection For Radio Facilities: AC Power Lines

Lightning damage to electronic equipment caused by induction or direct hit and traveling along AC power lines is the most frequent port of entry in modern telecommunication systems. It's not uncommon to find facilities that have extensive lightning protective devices on RF transmission lines and telephone lines but have little or no AC line protection. It is possibly because AC line service protection is less understood, but more likely because there are few products available commercially that offer really sound protection.

The reason that AC power delivery is such a common entry source is easy to see. Power lines are heavily exposed, usually for many miles from the equipment site. They are often strung overhead, sometimes hundreds of feet high. A single lightning blast to exposed power lines can travel for miles looking for distribution means to reach earth ground. In its path the surge will divide among many low resistance points, usually damaging all of them. Virtually anything connected to AC power is subject to surge distribution, and delicate solid state electronics are normally the first items damaged.

Yet protecting AC lines is relatively easy compared to other types of entry ports. But the only truly effective method of achieving good protection is at the service entrance of AC power to the structure where electronic equipment is housed. In modern applications popular plug-in type devices sold in hardware stores offer poor, if any, protection. The reason is that they are located far from actual earth ground in most cases, and they often have voltage breakdowns so high that by the time the device begins to work the damage has already been done.

Structural type protectors offer unique advantages. First, because they are located at the service entrance they protect nearly all AC operated items in the building. The units activate on incoming high voltage AC or DC wavefronts, stopping them in the line of travel before they enter the building's AC wiring distribution system. Second, service entrance panels are most often located in a place where local earth terminal ground connections are nearby, so short leads of heavy wire are both possible and frequently installed by electricians when the service box is mounted.

A structural protector is designed for large incoming voltage surges of very high power. The better units offer hybrid action, which means that they employ two different methods of voltage attack and power handling capability. Normally the two internal systems employed are Metal Oxide Varistor (MOV) technology and Gas Discharge (GDU). MOVs are particularly useful because they feature fast attack to overvoltage surges, dual polarity operation, relatively high power handling capacity if paralleled and are inexpensive. Gas discharge units offer even faster attack times, higher power handling capacity per unit and dual polarity operation but at somewhat higher cost. The use of GDUs are also a bit sensitive in the design stage because they go short when activated, possibly rupturing or not extinguishing properly in AC line service. Their use must be carefully figured.

A combination of the two types offer the best performance, and a unit can be tailored to slope the attack mechanism so that the device can safely handle both small wavefronts and the inevitable large ones. MOV devices installed in equipment cabinets is also a good idea, especially if the equipment is located 100 feet or more from the service panel entrance. Another feature of MOV devices, no matter where they are located, is - that they have large distributed capacitance in the structure of the device, offering some RFI protection as well.

I And don't forget to connect the AC service neutral ground to the facility's grounding bulkhead system for wider lightning current distribution.



## Seems almost like Normal...

With the return to in person club meetings and this year's RARC picnic, things are shaping up for a return to some resemblance of normalcy. With that in mind, there is a sudden rush of events that seem to be almost overwhelming. In addition to our annual picnic, June 12<sup>th</sup> all be it socially distanced and BYO, next in line is Onalaska Community Days June 18<sup>th</sup> and 19<sup>th</sup> Where we were featured by the setting up of our Emergency Communications Trailer right up front next to the Onalaska American Legion's Tank.

Followed by ARRL Field Days June 25<sup>th</sup> 26<sup>th</sup> and 27<sup>th</sup> at Champion's Resort on the Black River near Galesville. We barely get time to catch our breath from those events before we are into the preparations for the return of our annual SwapFest August 7<sup>th</sup> back at the American Legion Club Rooms in Onalaska and before the dust settles from our SwapFest we are going to be actively involved with Irish Fest at the La Crosse at the OktoberFest Grounds August 13<sup>th</sup> 14<sup>th</sup> and 15<sup>th</sup>. We have been invited this year to participate in Irish Fest where we will be setting up a Special Event Station with our Emergency Communications Trailer so that we can make QSOs with various Amateur Radio Clubs in Ireland and around the world. We will have an opportunity to display the benefits of Amateur Radio to those in attendance and enjoy lots of fun and music from that open community activity there.

By the time that September rolls around, we should be able to relax and look forward to the rest of the year's "New Normal" activity. It is good to be active again after a year of cloistered inactivity, but it is a bit overwhelming. I guess that we should be grateful for surviving the perils and uncertainty that has existed for far too long. Still, it will be a bit of a challenge for some of us to get back to an acceptable routine that we have missed.

Oh yes, we are all still here. We are still on the air communicating via radio as we always have, but with the threat of the pandemic still looming over us somewhat, we still need to be careful and to be considerate of others as we transition back to life as we used to know it. It would be easy to jump right back to what we used to be able to do, but some care must still be taken as we aren't out of the woods yet with COVID. There is still a clear and present danger lurking nearby. It might not be totally COVID related. There are other issues that keep coming up. Issues that we need to be aware of. Issues that command our attention. These issues, though daunting at times are issues that we can survive as well, if we are patient and considerate of others. There has been a lot of pain and suffering imposed upon many of us. Pain and suffering that will heal in time, but it will require our concerted effort to see it through. I don't think that I need to enumerate the issues that I am alluding to. They are many and varied. Some are universally important issues and some have more local impact, but they still need to be of concern.

In spite of all of that, we must communicate and be empathetic and help others out, especially those that we know are in need of our help. When we work together, we can do wonders. Progress may be slow at times, but progress is still progress and any progress is better than none. All that you can do is all that you can do, but it is enough, if you just do it! As I close, I am reminded of the way that we usually start our meetings, with the Ham's prayer: "I'm a Ham, and I can transmit, if I have to, I guess." Somehow that seems a bit more hopeful to me just now.

73 de KC9HDS, Carl (member, contributor)



# NEEDING HELP

As things become more open and the list of our events wind down, I find that the time has come to clean out my garage. Yes, I said it. It is time to clean out my garage. As many of you who have seen my garage know, there is a huge pile of assorted stuff residing in there. Don't get me wrong. There is a lot of valuable stuff in there. Too much stuff. Stuff that needs to find a new home. Stuff that I'll never use. Stuff that others might treasure and want. Stuff that could grace your shack or home, if only you would take it away. Oh yes, there are some items that I would like to get some money for. Way less than what the replacement cost of those items though. There is a lot of stuff there that just needs to disappear, gratis. I'm sure that it will all go, one way or another. The trouble is I have come to realize that I can not do the clean out alone. So I am asking for help. Your help in any way that you can find time to do will be an immense help in achieving my goal of a garage that can once again contain cars as it was intended to do.

Ideally, if this could be accomplished in July ahead of the RARC SwapFest, I'd be willing to donate much of this stuff to our club for sale at the SwapFest in August. I will admit that this job is immense and that it will take a lot of physical work to see it done, but I am willing to do whatever it takes to accomplish my goal of a cleared out and clean garage. Granted, this may be too much to expect at such short notice, but I would really appreciate the effort needed to make a substantial dent in the glacier of stuff that resides in my garage. As a wise man once said, "All you can do, is all you can do, but all you can do is enough, if you just do it!" I confess that I have amassed quite a pile of assorted stuff. I'm not really sure how this happened. I guess that I brought home orphaned items from various places, feeling that they were just too valuable to trash. I will also admit that I have a soft spot for things that are free, often they seemed to be priceless to me when I found them. This usually happens when there is a need by someone else to free up storage space and thus is ready to toss it all out.

When I worked at Western Technical College, there were many such opportunities as there is never enough storage space for all of the items needed to run a technical school. Many of the things needed for the day to day use of the students and staff are expendable. They are needed and useful during a course's run, but once the course is over, the need to keep that stuff has been exhausted and as a result those items are set out in the hall for anyone to take, and so I did. There were meters, components, tools and supplies that had out lived their usefulness and needed to disappear. I just couldn't let them be trashed, so I brought a lot of them home. Added to this is the fact that at one time I was the director of a technology museum at Western. In that position, I acquired many artifacts from many different sources that were displayed in cases there. This was all well and good. Many people liked the displays. It was all so wonderful, until the money ran out. Then the exhibits had to be disposed of and many of them wound up in my garage. I'm not making excuses for my weakness for this stuff, I'm just stating facts. Be that as it may, I had hoped to find someone with a burning desire to open their own technology museum, but alas, after 20 years of searching and selling off some of the items, I still have a massive amount of stuff to deal with. I can't begin to do an accurate inventory of all of the stuff in there but I will say that there are many items of interest to Hams including radio equipment, antennas, fittings and accessories, plus many wood working tools and other tools of all sorts. Again, I'm willing to be generous with my stuff to all those that are willing to help me out.

Carl's, KC9HDS, contact info is on QRZ.com.



# RIVERLAND AMATEUR RADIO CLUB

## Monday, June 21, 2021 Board Meeting Minutes

Meeting was called to order at 6:35 PM at Perkins in Onalaska, WI.

**Officers Present:** Carl KC9HDS, Drew AB9NE, Dan AB9TS, Rick KD9GVS, Steve W9DXE, Dave KB9EWG, Shawn KD9KGQ had an excused absence.



**Approval of May 2021 minutes:** Motion to Approve May's Minutes was made by Dave and seconded by Rick. Minutes Approved as published.

**Treasurer's Report:** Drew made the Treasurers report, and it was approved.

**Officer's Reports:** Dave commented on the success of the Club participation in Onalaska Community Days on June 19, 2021. Everyone agreed that it was a good opportunity to set up the club trailer and get ready for Field Days coming up next. Carl commented that it revealed the need for a larger inverter, and he has an 800-watt unit that he will donate to the club trailer for use.

**Committee Reports:** None.

### Old Business:

- Newsletter Articles – for "The Key" should be sent to Kelley by the 26<sup>th</sup> of the month to make it into the newsletter.
- Field Day – A discussion of the upcoming field days involved the logistics and plans for event to be held at Champions Riverside Resort on June 26 & 27<sup>th</sup>, 2021. Set up will begin on Friday afternoon the 25<sup>th</sup>.
- Swapfest August 7<sup>th</sup> – Need to decide on how much we are spending for door prizes, and order ASAP. There are long lead times to acquire most anything right now.
- Irish Fest August 13th-15th - Shawn is at a meeting at the Legion tonight for Irish Fest

### New Business:

- July Pontoon Boat Ride – Dan any water level updates? Dry conditions have river levels very low for this time of year. Stay tuned for updates.
- We have several donations for door prizes as well, including from Yaesu, Heil Sound, \$60 in gift certificates from Mastrant antenna guying, plus some more on the way. Kelley has made almost 20 contacts with vendors for potential donations, will see what results.
- Dan has a report on Club Shirts he has made a contact to a vendor that is local. There will be a further report at the next meeting about prices and selections.

Motion to Adjourn @ 8:30 PM

- \* *Anyone who is a member of the Club are welcome to attend the RARC Board meetings.*

## UPCOMING Events for July 2021

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

July 4, 2021 Wayne k0wlo

July 11, 2021 Shawn kd9kgq

July 18, 2021 Mark kb9ofk

July 25, 2021 Carl kc9hds

- ◆ Saturday morning Ragchew, weekly on the 146.970 repeater, 8:00-9:00 AM
- ◆ **July 6...**Program Night: in lieu of regular meeting is our annual Pontoon ride courtesy of the Abts family. We will leave promptly at 6:30 PM from the 7th Street boat landing. The landing is now pay to park, you can park on the street and walk-in if that is a problem for you. BYOB if desired. We will monitor the 97.
- ◆ **July 19...**Trustee Meeting, Time: 06:30 PM, Onalaska Perkins. All members are welcome to attend.



## BUY-SELL-TRADE-ISO

- Everyone has what they need this month. No submissions made.

*\* Send your Amateur related classified ad to Kelley, NLT the 27th of each month to [kelleyLL23@hotmail.com](mailto:kelleyLL23@hotmail.com)*

## 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 consist 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: Kelley Becker at KelleyLL23@hotmail.com.
- \* 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 their 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 Perkins Restaurant, 9428 State Road 16, Onalaska, WI 54650 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 401 West Avenue in La Crosse.
- \* Weekly "Breakfast Club" Ragchew on the 146.970 repeater on Saturday's from 8:00 AM to 9:00 AM. Stop by to say "hi".

### **Below are listed your RARC 2021 Board of Trustees and contact information.**

President.....Rick Kolter, KD9GVS Email...[rckolter@gmail.com](mailto:rckolter@gmail.com)

Vice-President.....David Peters, KB9EWG Email...[kb9ewg@gmail.com](mailto:kb9ewg@gmail.com)

Secretary.....Ron Severson, KD9OHQ Email...[ronaldhseverson54@gmail.com](mailto:ronaldhseverson54@gmail.com)

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Trustee.....Carl Thurston, KC9HDS Email...[kc9hds@gmail.com](mailto:kc9hds@gmail.com)

Trustee.....Steve Becker, W9DXE Email...[sbecker54656@yahoo.com](mailto:sbecker54656@yahoo.com)

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Newsletter Editor.....Kelley Becker, KD9LQW Email...[kellyLL23@hotmail.com](mailto:kellyLL23@hotmail.com)