



## KEEPING THE GOAL IN SIGHT ...By Greg Miller, K9LEC

As the title says, when you take on a project you need to keep your final goal always insight to keep your interest at a level to keep pushing you. A few years back I took on a project that is turning into a long play and with out the final goal insight I might have put it on the back burner a long time ago. The goal is a 1/4 scale flathead V8 engine all machined from aluminum and steel castings or flat and round steel stock. (Pictured to the right). I am finding that I can spend 3 hours building a fixture to machine a casting and only spend 10 minutes drilling and boring a hole thru the casting. I spent 60 hours on producing the 8 connecting rods, 45 hours of that time was fixture prep. Now I find I can't just keep the final project in sight but I need to break up the final goal into more manageable chunks. As an example I looked to what the project would look like with the pistons, connecting rods and crankshaft all assembled and rotating with the pistons going up and down in the engine block. I have accomplished it that far and it has given me a renewed energy to push, push, push. So I picture here some of the completed parts with many more to go. What does this have to do with Amateur Radio? Really nothing except that my radio room is located in my machine shop so while I work on the engine I usually have HF on and I listen to a net or someone rag chewing, sometimes I drop the machining and join in the conversation. 73



## PRESIDENTS COMMENTS

At the October virtual club meeting I gave a presentation on using Wires-X on the W9UP 146.97 repeater. It was well attended. I started out playing a video on using the Yaesu FT70-DR on Wires-X as well as another using the FT-3DR. Then I demonstrated using Wires-X on the W9UP repeater using my FT-3DR. I connected to a couple rooms including the W9UP room. A few club members also joined the room; some over the air and one over the internet. It worked well. This week I've notice a few other people taking advantage of this feature by connecting to America Link and enjoying it. I hope it gets well used. It is great to have activity on the repeater.

For the November club meeting we will once again be doing a virtual meeting using Zoom or WebEx. Hopefully, we will have our Rotary Lights assignment and can make a list of who is willing to help out. We will begin taking nominations for the board. It would be great to have a lot of choices to vote on in December! You can email Rick Kolter [rck-olter@gmail.com](mailto:rck-olter@gmail.com) to nominate someone or yourself if you don't want to do it in the virtual meeting. Shawn KD9KGQ will demonstrate his graphing antenna analyzer and I will demonstrate mine. Watch for an email from me with the Zoom or WebEx invitation a day before the meeting. If you would like to be invited to these meetings but haven't been getting the invitations, look in your junk folder or send us your correct email address. To give us your email address, send an email to the secretary Rick Kolter [rck-olter@gmail.com](mailto:rck-olter@gmail.com).

For the December virtual club meeting we will ask for nominations again then close the nominations. The secretary will send an email message to all club members with the list of candidates. Club members will then have Wednesday, Thursday and Friday to reply to his email with the list of 7 they choose to be on the board. Rick will keep track to make sure no one votes more than once and only club members vote. Sometime on Saturday December 5 Rick will send out an email listing the board members for 2021. Also at the December meeting David KB9EWG will talk about taking ham exams virtually. I will give a RARC year in review presentation.

Feel free to contact me with comments and suggestions at [AB9TS@yahoo.com](mailto:AB9TS@yahoo.com). 73 de Dan Abts AB9TS

CONGRATULATIONS TO  
KELLY BECKER, KD9LQW  
ON BEING PRESENTED  
THE EMERGENCY COOR-  
DINATOR OF THE YEAR  
AWARD!!



## Having Fun...By Carl Thurston, KC9HDS

Since I have finally gotten my station set up properly, I've been having more time to explore HF. I must confess that I have been a bit of a slacker when it comes to radio communications. A lot of times I have had opportunities to transmit and have failed to do so. There have been many reasons for this. It seems that at times I have more irons in the fire than I would like and as a result my time on the radio has not been real regular. Oh yes, I do do a lot of tinkering with my equipment, but then what Ham doesn't? That shouldn't have a negative impact on participation on the bands. Unless, as so often has happened to me in the past, those pesky Gremlins invade my shack and do their dastardly best to keep me from doing anything but repairs and modifications to my rig, antennas, or shack. Over the years, I have worked steadily on refining my set up to minimize the impact of those little fiends. Just when I think that I've finally chased them off, they would find a way to pester me some more.

As I noted in a previous article, it has taken a lot of effort from a lot of people for me to get my new Butternut HF9V up, tuned, and running. You might say that I have been somewhat careful not to put too much stress on this set up. Frankly, it has been so long since I've had a good dependable antenna, I hardly know what to do with one that works consistently. It is not because I don't have alternative antennas, perhaps the opposite is more the case. I have experimented with many different dipoles, verticals, and long wire antennas with mixed results. Sometimes they worked good one day and not the next, sometimes they didn't work at all. At least I wasn't able to get them to work as intended. Whether this was because of band conditions, inappropriate operating methods, or my own ineptitude must be considered. A lot of the time, I try things that probably wouldn't work under any conditions. I kind of stumble around and try whatever seems like it might work, only to find out that it doesn't. I have no real good reason for my continued lack of success at operating, except to say that I have had so little real time experience as a competent radio operator, that when I do finally make a QSO, it is such a surprise that I have little to say. Recently I have been trying to augment my efforts by listening to and joining various HF Nets. This has been very helpful as it gives me an opportunity learn more by doing. The Hams on those nets have been very patient with me and have pointed the way to having fun with HF. If you are like me, try some HF Nets, it couldn't hurt. The key to it all is to get in there and try new things, and don't be afraid of making mistakes. Often times one learns more from mistakes than anything else. Have fun,73.



### UPCOMING EVENTS FOR NOVEMBER 2020

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

November 1, 2020	Kevin kc9zgd
November 8, 2020	Shawn kd9kgq
November 15, 2020	Carl kc9hds
November 22, 2020	Mark kb9ofk
November 29, 2020	Rick kd9gvs

November 3...Program Night, nominations will be accepted for Trustees for the club for 2021. Also Shawn, KD9KGQ and Dan, AB9TS will demonstrate there antenna analyzers.

November 16...Trustee Meeting held virtually. Contact one of the Trustees for info on joining in.

## TIP ON BUILDING A WIRE ANTENNA

One of my favorite parts of this hobby is building wire antennas. I've had a great deal of success using antennas on the HF bands that are easy to build and inexpensive to source. My last two antennas cost me \$9 speaker wire and some scraps of PVC. I fed one with 450 ohm window wire (I bought a spool of that years ago, and it is very handy). The other one was fed with coax bought at last year's swapfest.

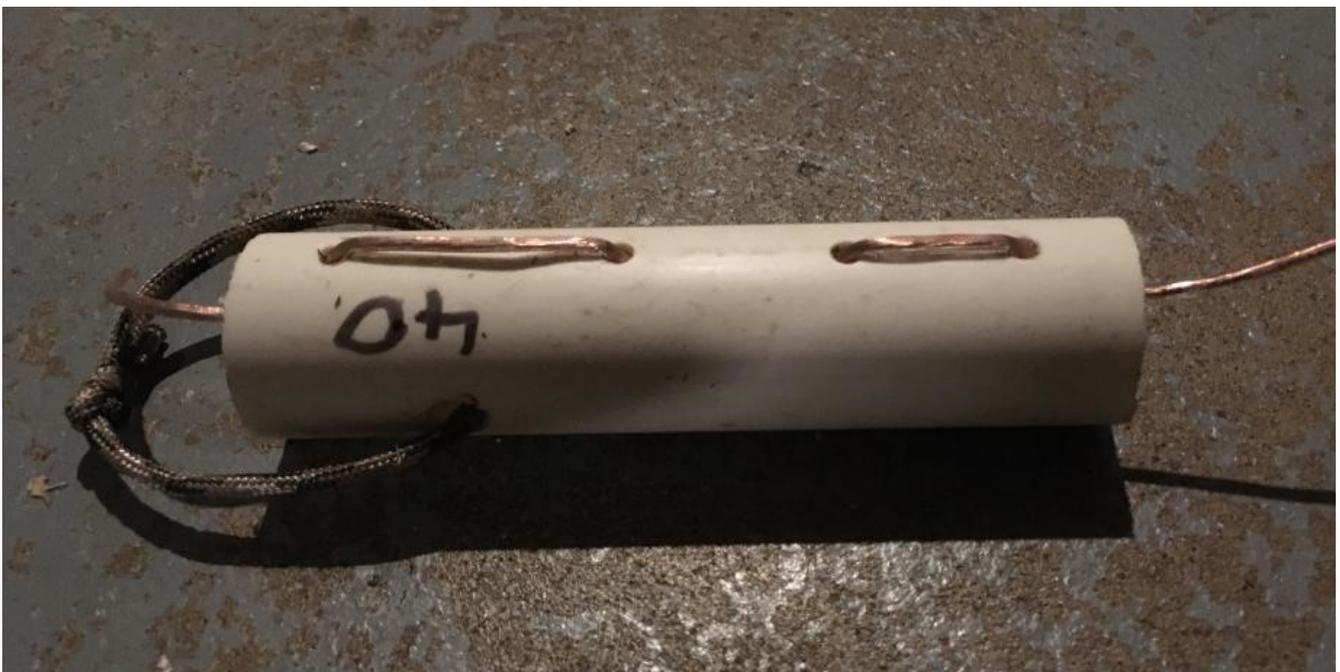
A time-honored approach to building wire antennas is to start with the wire longer than will be needed because wire can be trimmed easier than adding on. There is a process, then, to trim it to the length you want to achieve resonance. The formulas will generally get you close to the length you'll want, but there are variables that can affect the final length, so start with the wire a bit too long.

Up until a couple of years ago, I would normally pick up end insulators at swapfests just to have some on hand, they don't cost more than a couple of dollars. An idea occurred to me that changed my practice, though. Some of you might like this idea, so I thought I'd share it.

I had an application for an inverted vee antenna on which the center insulator would rest on top of its support, so I thought about using a length of PVC as the center insulator. A good practice when soldering is to use the solder to ensure the electrical connection, but not for the physical support. Since I was running it along PVC, why not weave the wire through a series of holes drilled into the pipe? As I looked at descriptions of center insulators in ARRL publications, they often suggest a similar approach to provide strain relief. It worked like a charm and I was able to maintain slack in the wire after only a couple of weaves.

The thought occurred to me in a later project to apply the same idea to the end insulators. Rather than traditional end insulators that require winding wire back on itself and soldering, I would simply use a short piece of PVC. That would allow me to trim the antenna to the length I want without having to cut and resolder around the insulator with each trim. I can simply feed more of the wire through the weaving to get a tail of wire to trim. It worked very well. I can drill larger holes in the PVC to allow the support ropes to be fed through and fastened. The PVC also has the advantage of being easily marked. The insulator in the accompanying picture; for example, is from the antenna I built for the recent NVIS experiment. It has four legs, two for 40 meters, and two for 75 meters. I was able to note that on the insulator making it easier to unwind from the plastic frame that I use for storage.

Drew Neve, AB9NE



# AMSAT 2020 Space Symposium video now online

By Dan Romanchik, KB6NU

The 38th AMSAT Space Symposium and Annual General Meeting was held online on October 17, 2020. I'm kinda bummed about this because I just joined AMSAT, but somehow, I managed to miss this event. Fortunately, the symposium was recorded and is now online, and I've been enjoying watching the video ([https://www.youtube.com/watch?v=EHDgrI\\_w8hY](https://www.youtube.com/watch?v=EHDgrI_w8hY)).

The video includes updates on AMSAT projects and presentations on amateur satellite technology. For details on presenter names and presentation titles, visit the AMSAT website. AMSAT members can access the Symposium Proceedings on the AMSAT website as well. (The proceedings for all the AMSAT Symposiums are available there as well, but you do have to be an AMSAT member.)



Here's a list of the different presentations on the video and the times at which they start:

- 0:00:00 Welcome
- 0:02:07 AMSAT GOLF-TEE System Overview and Development Status
- 0:43:02 GOLF IHU Coordination
- 1:19:10 GOLF Downlink Coordination
- 1:50:15 FUNcube Next
- 2:13:50 LunART – Luna Amateur Radio Transponder
- 2:45:35 CatSat HF Experiment Overview
- 3:13:30 Neutron-I CubeSat
- 3:39:58 Progress and Development of Open Source Electric Propulsion for Nanosats and Picosats
- 4:15:00 AMSAT Education
- 5:14:00 ARISS (Amateur Radio on the International Space Station) / AREx (Amateur Radio Exploration)
- 6:14:00 AMSAT Engineering
- 7:21:16 AMSAT Annual General Meeting

So far, I've only watched the GOLF-TEE System Overview and the AMSAT Education presentation. They were both interesting and I'm looking forward to watching the others.

I really hadn't been keeping up with AMSAT lately, so the the presentation on the GOLF project was definitely news to me. GOLF is an ambitious project aimed at sending up high Earth orbit (HEO) satellites. GOLF is short for "Greater Orbits Larger (user communication) Footprints." This is really pretty exciting stuff.

Watching these presentations really gives one an appreciation for the work that goes into the design of these satellites and the technical skills and dedication of the hams working on these projects. These guys are not getting paid to do any of this work, and as Eric Skoog, K1TVV, the GOLF System Engineer said in his presentation, "Space is hard."

=====

Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (KB6NU.Com/study-guides/), and often appears on the ICQPodcast (icqpodcast.com). When he's not trying to work the satellites, he teaches online ham radio classes and operates CW on the HF bands.





## RIVERLAND AMATEUR RADIO CLUB

### Monday, October 19, 2020 Board Meeting

#### MINUTES

**Call to order:** 5:36 PM

**Members Present:** Dan AB9TS, David KB9EWG, Bill KE9XQ, Shawn KD9KGQ, Drew AB9NE, Carl KC9HDS, Rick KD9GVS

**Approval of Minutes:** September minutes approved as written.

**Treasurer's Report:** Available upon request from Drew, AB9NE

#### **Old Business:**

Newsletter articles – Drew sent one in, Carl, Bill, and Shawn all volunteered to turn one in the near future.

Fox Hunt – postponed to 2021.

Rotary Lights – awaiting our Club's assignment. There will be no parade and opening ceremony this year.

Digital net on 146.97 repeater – not being conducted currently, unless someone else would like to volunteer as a NCS.

Oldest repeater, controller, and cavities is now stored at Greg's, Rick volunteered to research possible value of this equipment.

#### **Committee Reports:**

Repeater committee – Wires-X room 63956 is up and running from Dan's QTH. Control operators – Shawn was successful from various locations mobile, but not from his home QTH. Rick was not successful from his mobile in the La Crosse area.

Acentek provided us a no-cost internet connection at WXOW repeater site.

Wires-X node still at AB9TS home QTH using Rick's FTM-100DR until computer can be remotely controlled.

#### **Monthly Program List**

November – nominations will be taken for 2021 board members. Dan and Shawn will present their graphing antenna analyzers.

December – it was decided to conduct elections by E-mail. Dan will submit the procedure in an article for the Key so the membership is aware. Also Dan will present his "what we accomplished this year" summary.

## 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.

Address any correspondence or anything that should be included in the newsletter to: Greg Miller at KA9FOZ@gmail.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 LaCrescent, 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 LaCrosse.

Below are listed your RARC 2019 Board of Trustees and contact information.

President.....Dan Abts, AB9TS Email...[ab9ts@yahoo.com](mailto:ab9ts@yahoo.com)

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

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

Treasurer.....Drew Neve, AB9NE Email...[ab9ne@yahoo.com](mailto:ab9ne@yahoo.com)

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

Trustee.....Bill Wood, KE9XQ Email...[ke9xq@charter.net](mailto:ke9xq@charter.net)

Repeater Trustee...Shawn Hicks, KD9KGQ Email...[eistim68@gmail.com](mailto:eistim68@gmail.com)

Newsletter Editor.....Greg Miller, K9LEC Email...[ka9foz@gmail.com](mailto:ka9foz@gmail.com)