

THE KEY

Official Journal of The Riverland Amateur Radio Club WR9ARC



The Riverland Amateur Radio Club is a Special Service Club affiliated with the American Radio Relay League. The club is active in community service as well as actively promoting Amateur Radio in the Coulee Region. The Club is open to all who are interested in Amateur Radio and will help unlicensed persons become licenses thru the FCC.

**Riverland
Amateur Radio
Club**
P.O. Box 621
Onalaska, WI.
54636

Repeater
146.970 PL 131.8

RARC Net
8:00 PM Sunday on
the 146.970
Repeater

Club Meetings:

Trustee Meeting
3rd Tuesday 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
1st Tuesday of the
month at 7:00 PM,
Gunderson Clinic
conference room 1
in the lower level.

MS Walk 2019 ...By Carl Thurston, KC9HDS

As the years have gone by, the RARC has improved and expanded its coverage of the annual MS Walk event. This year was an especially large step forward for our club. In addition to the usual well planned out mapping of the route, the response from our members who participated was larger than ever before, we also had a new antenna and stand loaned to the club for use at such events, along with other improvements.

We also wore our new Emergency Communication vests complete with our club logo on the front.

This was a very good thing to have done as our club for the first time, had by wearing those vests, full recognition of our participation and support for the MS Walk event. All of the participants in the walk could plainly see that we were there to help and protect their safety as they walked the route of the event. In addition to this, we also had our banner posted prominently at our communication net control station in the La Crosse Center where the event was organized and where the starting point and ending point for the walk has been established for many years.



The weather was rather iffy this year, with cold temps, rain turning to snow, and a stiff breeze. As a result the turn out of those walking the route was a bit less than previous years, but those who did brave the elements, were rewarded with a good time, a nice lunch, prizes from various sponsors, as well as the ramped up marshaling by the RARC.

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**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.

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. 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 LaCrescent, MN. 146.970 pl 131.8.

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

President.....Dan Abts, AB9TS
Email...ab9ts@yahoo.com

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

Secretary.....Rick Kolter, KD9GVS
Email...rckolter@gmail.com

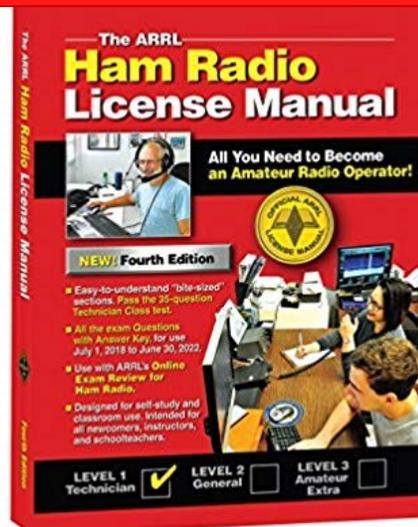
Treasurer.....Drew Neve, AB9NE
Email...ab9ne@yahoo.com

Trustee.....Carl Thurston, KC9HDS
Email...kc9hds@gmail.com

Trustee.....Bill Wood, KE9XQ
Email...ke9xq@charter.net

Repeater Trustee...Shawn Hicks, KD9KGQ
Email...eistim68@gmail.com

Newsletter Editor.....Greg Miller, K9LEC
Email...ka9foz@gmail.com



TEST SESSIONS

Test dates for 2019 for any new licenses or upgrades are:

August 10

September 7

November 9



The trailer will be on display and active on June 15 at both the Onalaska Community Days 731 Sandlake Rd. and the club picnic at the Quincy Street Shelter as well as June 22-23 for Field Days.

FREQUENCY MODULATION FROM THE PRESIDENT...Dan Abts, AB9TS



June will be a busy month for the Riverland Amateur Radio Club. We start out with the June program meeting on the 4th with a presentation on how to use the club's Kenwood TS-570 and the Icom IC-718. We will also talk about the Field Day event the club has planned for June 22nd and 23rd.

On June 15th is the club picnic at the Ball Park Shelter near the softball fields on Quincy street in Onalaska. It starts by 11:00 am and runs until 3:00 or 4:00 pm depending on how long people want to hang around and talk. The club will provide steaks and some beverages but please bring a dish to pass. There will be a sign-up sheet passed around at the club meeting so we can get an idea of how many people will attend and what they will bring. We will have the club trailer there and a station set up.

The monthly board meeting is June 17th at 5:30 pm at Perkins in Onalaska. Board members are expected to attend but any club member can attend and offer their ideas as well.

The weekend of June 22nd is Field Day. This is a great weekend to get on the radio. There are over 35,000 hams that participate in this event in the US and Canada. The site we use is just north of West Salem at N6376 Jostad Coulee Road. Some of us will go up Friday night to get trailers to the site, set up our campers, and plan where the stations and antennas will go. Saturday morning between 9:00 and 10:00 we will start setting up the antennas, radios, and computers. While the actual contest doesn't start until 1:00 pm, I encourage people to come early and pitch in with the setup. The ARRL is emphasizing the skill, service and discovery aspects of amateur radio this year. Field Day is the perfect event for this. All three of these aspects abound. You can get on the radio or help a new ham. You can log for another operator or trouble shoot problems that come up. You can help with set up or take down. You can watch what others are doing and maybe learn something. It is also a great time to talk with other hams or to bring your own equipment to try it out or get help with it. There will be a pot luck at 5:00 pm with the club providing steak and beverages. Please bring a dish to pass. We will operate all night if we have people who want to operate. Sunday we will continue until 1:00 pm when the contest ends then take it all down and head home.

Remember the date for the swapfest is August 10th at 8:00 am at the Onalaska American Legion. Watch for the flyer for more details. Special thanks to Carl KC9HDS for finding this great location and securing the date for us. The parking lot should work great for tailgaters and the food will be an improvement.

Feel free to contact me with comments and suggestions at AB9TS@yahoo.com.

73 de Dan Abts AB9TS



MS Walk 2019.....Continued from page 1

It all went without incident, thanks in large part to those who organized both the event itself and those who volunteered in support of it. It should be noted that the RARC Net Control and planner was Rick KD9GVS. The crew of marshals included: Dan AB9TS, Dave KD9MLF, Drew AB9NE, David KD9EPN, Arthur W0JDC, Shawn KD9KGQ, Dave KB9EWG, Carl KC9HDS, and Scott KB3MKD. Logistical Support was provided by Bob W9LSE, Bill KE9XQ, Tom WB9BJQ, and Roger KA9BKK.

All of this was due also because of the active and forward thinking of our President Dan AB9TS, our Officers: Dave KB9EWG, our Vice President, Drew AB9NE, our Treasurer, Rick KD9VGS, our Secretary, Shawn KD9KGQ, our Repeater Coordinator, Bill KE9XQ and Carl KC9HDS, Executive Board Members at Large.

The event ran from 10:00 am to around noon, with a lunch of sandwiches, fruit, milk, soda, doughnuts, and cookies (provided by the various sponsors of the MS Walk.) The lunch was served by Volunteers and it was enjoyed by all in attendance.

After lunch, everything was taken down and packed in cars to be returned to our Emergency Communications Trailer, where it will be ready for the next event to be announced soon.

Every event that the RARC members participate in expands the impact that this club has on community events and the public at general. These are the sort of things that make the RARC a Special Services Club and part of the American Radio Relay League's active role in making everyone aware of the need for Amateur Radio and its ability to communicate at any time, any where, for any needed occasion.

All members of the RARC should be proud of the active role that our club is pursuing for the betterment of our community, our commitment to service, our continuing cooperation with the National Weather Service and our hobby.



A Great Public Opportunity For The Riverland Amateur Radio

The Onalaska Community Days is celebrating 14 years this year and they are teaming up to help the Onalaska Fire Department celebrate 125 years of serving the Onalaska community. They are also pairing up with the Onalaska American Legion Post 336 and the YMCA for the Wounded Warrior Walk.

They have taken this opportunity to invite the [Riverland Amateur Radio Club](#) to be a part of the event this year.

Onalaska Community Days will be June 14-15, 2019 on the grounds of Onalaska American Legion Post 336.

This will be a great opportunity to work together with The Onalaska Community Days on Saturday June 15th. We will set up the club trailer at 8:30 am and be open to the public at 10:00 am. Take down is at 2:00 pm.



Getting loaded (antenna-wise, anyway) ...By Dan Romanchik, KB6NU

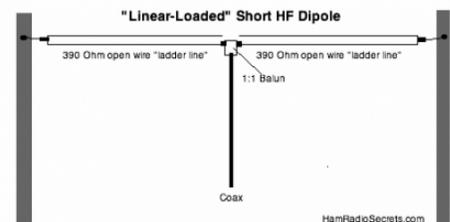
A couple of years ago, I homebrewed a "Cobra" antenna (<https://www.kb6nu.com/yet-another-new-antenna-the-cobra/>). It's a doublet antenna, meaning that it consists of two elements connected to a center insulator, where it connects to a feedline. The unique thing about the Cobra antenna is that each element consists of three parallel conductors connected in series.

My antenna uses a lightweight, three-conductor rotor cable that used to be available from Radio Shack. The feedline is 450 Ω ladder line that connects to an antenna tuner to give me multi-band operation.

Connecting the conductors in this way is supposed to provide "linear loading." Somehow, running the conductors in parallel is supposed to increase the antenna's effective length. My antenna is only 73-ft. long, but it easily tunes up on 80m.

The *ARRL Antenna Book* has a short section on linear loading. It says that linear loading is a "little understood" alternative to inductive loading that can be applied to almost any type of antenna. Furthermore, "...it introduces very little loss, does not degrade directivity patterns, and has low enough Q to allow reasonably good bandwidths."

As I mentioned, I've been using this antenna with good results for a little more than two years now. When I first put it up, someone mentioned the concept of linear loading to me, but not being an antenna guru, I didn't give it much thought. About a week ago, though, I ran across a link to the page Short Ham Antennas for HF (<https://www.hamradiosecrets.com/short-ham-antennas.html>). That got me thinking about the topic again.



This page describes a way to build a linearly-loaded dipole antenna with a feedpoint impedance of approximately 35 Ω . This allows you to feed it with coax instead of the ladder line that I use. The author uses 390 Ω ladder line for the elements. He says it's commonly available, but I don't think I've ever seen 390 Ω ladder line. You could probably use 450 Ω ladder line by adjusting the element lengths a little.

At that point, I started Googling. The next linear-loaded antenna design that I ran across is a design from M0PZT (<http://www.m0pzt.com/40m-linear-loaded-dipole/>). He built his elements from some sturdy wire and homebrewed spacers made from PVC pipe. He's used this design for the 40m elements of a fan dipole covering the 40m, 20m, 15m, and 12m bands. Only the 40m elements are linear-loaded.

I also found a design for a linear loaded vertical antenna for 40m and 80m (<https://www.qsl.net/pa3hbb/ll.htm>). This antenna is only 7.736m, or 25.4 ft. tall. Of course, it requires a good radial system to work well, but it will work a lot better for DX than a low doublet or dipole.

Finally, there's an eHam discussion on linear loading (<https://www.eham.net/ehamforum/smf/index.php?topic=84418.0>). Unlike a lot of eHam discussions, this one is quite civil. It's worth reading if you're interested in the topic.

So, if you're thinking of getting loaded, errrrr, I mean loading your antennas, here's a method for you to consider. It works!



May the 4th be with you

On May the 4th, RARC hosted yet another VE Test Session. It was the single largest test session in years. There were 12 who were tested and 11 of those passed. 6 Techs, 3 Generals, and 2 Extras. Those are the basic stats of the day. But those are but the conclusion of the event. There is much more to make note of. There were 5 VE testers present as well as our own VEC. Outside, the day was perfect; sunny with mild temperatures and a slight wind. Inside of the Church of Christ, was packed with those taking the various tests. In spite of the close quarters, everyone present was intent on doing their best to get or upgrade a license.

Bill Wood KE9XQ as usual, was the host. Providing in addition to the facility itself, he also saw that there was coffee, candy, and popcorn for all to enjoy. Which was nice as it added a festive note. That added a nice touch to things and it quite possibly helped propel those being tested to a favorable conclusion. As can be seen, this was a most unusual test session, To begin with it was held at noon rather than the usual 0900. It was changed to this time because there was one person who wanted to test but didn't get off of work until then so an accommodation was made for that person. No one seemed to mind this change of time, as everyone was eager to complete the test session and reap the rewards of their efforts.



Roger KA9BKK, our VEC, was at first a bit overwhelmed by the response to this test session, but he quickly took charge and the testing went very smoothly.

The VE testers present were:

Scott Cross KB3MKD, Tom O'Brien WB9BJQ, Dave Peters KB9EWG, Carl Thurston, KC9HDS, and Bill Wood KE9XQ.

The list of those being tested was:

Gerald Anderson Tech, Kelly Becker General, Michael Byers Extra, Blane Clerico Tech, Katherine Donvig Tech, Rick Hanson Tech, Rick Komperud General, Noel Mayes Tech, Greg Miller Extra, Andrew Robinson General, and Trenton Smith Tech.

This test session, due to its size and its success rate is further proof that Amateur Radio in general and the RARC in particular is flourishing. With so many new and upgraded Hams that were present at this VE Test Session, the future of our service and hobby looks brighter. That linked with the active nature of our Executive Board, progress will continue, and our club will continue to grow both in size and in the active nature of our members.



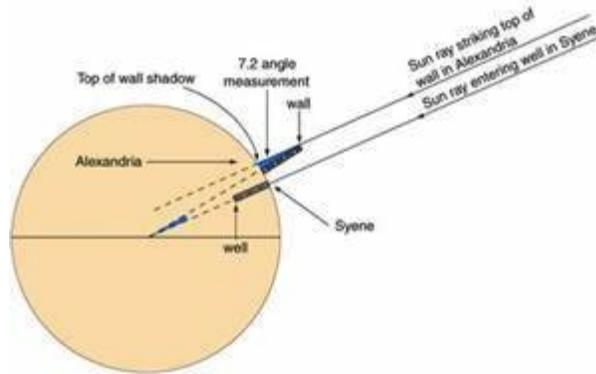


Fig. 1-5. Eratosthenes Determination of the Circumference of the Earth - about 200 B.C.

Bill's Corner...

By Bill Wood, KE9XQ

Greetings Earthlings

"There is a fifth dimension beyond that which is known to man. It is a dimension as vast as space and as timeless as infinity. It is the middle ground between light and shadow, between science and superstition, and it lies between the pit of man's fears and the summit of his knowledge. This is the dimension of the imagination, it is an area we call" ...
 (....)

These little articles are proposed as food for thought, eclectic in nature and meant to be presented with the aim of fun. Some of these you will of course agree fully with, while others will seem incredulous. If you have a topic you'd like to see covered, let me know and we'll see what happens.

Should be some electronics involved here and there, but all is fair in love and war, and this is war. War against boredom, war against couch potato-ism, war against the 'status quo' etc cetera. Imagine sitting, staring at the clock and telling mom you're bored. this happens all the time today. would you have heard this very often 50 or more years ago? Cell phones, tablets, TV/computer games galore and you hear "I'm bored". What kept you busy 50 or more years ago, and were you ever bored? I sometimes think we've taken three steps forward and two back.

What kinds of tools do you have that Eratosthenes could not use? What advantages did he have over you, and what about the advantages you have over Eratosthenes? If you were living in that time frame would you be bored or would you pay a little more attention to your environment and maybe climb a tree?

"A 2000 year-old calculation" "Observations on the incidence of sunlight allowed the Greek scientist Eratosthenes to calculate the circumference and radius of the Earth some-time before 200 B.C." from the book Physics by Jerry D. Wilson and Anthony J. Buffa 1997.

Just remember "If You Steal From One Author, It's Plagiarism; If You Steal From Many, It's Research" "If we steal thoughts from the moderns, it will be cried down as plagiarism; if from the ancients, it will be cried up as erudition. " WHAT IS RESEARCH? To Prof. Notestein of the Yale faculty is attributed the following definition for research: **"If you copy from one book, that's plagiarism; if you copy from many books, that's research."** So my friends I plan on robbing from many books. If I tell you or show you I stole it, you can't get me for plagiarism. :)

Hope to cover a hundred subjects, so will have to keep my quotes to a minimum.

73 Everyone

CLUB ACTIVITIES FOR JUNE

June 2...Sunday Night net on the 146.97 repeater at 8:00 PM. Net control is Kevin, KC9ZGD.

June 4...Program Night at Gunderson Lutheran. Review of the clubs HF radios.

June 9...Sunday Night net on the 146.97 repeater at 8:00 PM. Net control is Mark, KB9OFK.

June 15...Club trailer display for the Onalaska Community Days at the American Legion 731 Sandlake Rd. Set up at 8:30 AM.

June 15...RARC Annual Picnic starting at 11:00 AM. Quincy Street Shelter House.

June 16...Sunday Night net on the 146.97 repeater at 8:00 PM. Net control is David, KD9EPN.

June 22-23...ARRL Field Day. RARC location will be on Jostad Rd. north of West Salem.

June 23...Sunday Night net on the 146.97 repeater at 8:00 PM. Net control is Greg, K9LEC.

June 30...Sunday Night net on the 146.97 repeater at 8:00 PM. Net control is Carl, KC9HDS.

RIVERLAND AMATEUR RADIO CLUB SWAPFEST

AUGUST 10, 2019 8:00 AM to

**Located in the Onalaska American Legion
731 Sand Lake Rd. Onalaska, WI 54650**

RARC CLUB PATCH ORDER FORM

Please send me _____ club patches to the address below. I have enclosed \$3.50 for each patch ordered.

Send patches to:

Name _____ Call _____

Address _____

City _____ State _____ Zip _____



RIVERLAND AMATEUR RADIO CLUB

Monday May 20th, 2019 Executive Meeting

MINUTES

Call to order: 5:48 PM 2248 UTC

Members Present : Dan Abts AB9TS, David Peters KB9EWG, Carl Thurston KC9HDS, Rick Kolter KD9GVS, Drew Neve AB9NE, Shawn Hicks KD9KGQ, Greg Miller K9LEC, Bill Wood KE9XQ

Approval of Minutes: April 15th 2019 minutes approved as written

Treasurer's Report: Available upon request from Drew AB9NE

Officer's Report:

+ WAR (Wisconsin Association of Repeaters) paperwork submitted-still no update on status

Committee Reports

+MS Walk event – discussed getting next year's volunteers on board with APRS. A smart-phone based app may be the way to go. Volunteers would need to apply for their passcode. We could display everyone's location on a laptop at the La Crosse Center.

+Club picnic June 15 – Carl would like everyone who plans on attending to send him an e-mail note to help in planning. He will also pass around a sign-up at the June 4th meeting night.

+Field Day planning – Dan has the sign-up sheets, have several volunteers already. Will circulate again at next Club Program Night meeting on June 4th.

+Repeater Committee – no update as of yet on meeting location for this group.

Old Business:

+Club Trailer updates – Should be ready to go by Field Day, Greg and Carl continuing their work.

+Fox Hunt – update on attenuator kits, Dan has 5 total, 2 assembled and 3 in kit form. Possibly a project for Sunday afternoon soldering sessions.

+Lottery/Raffle licenses – Renewals are due, Carl will renew both "A" and "B" versions.

+Name Badges – no update

New Business:

+Several new Amateur licensees in the area – Rick will send out complimentary membership letters from the Club

+ It was suggested that a fund raising opportunity exists by utilizing "Amazon Smile" where a portion of purchases is donated to the Club. Dave, KB9EWG, will look into this for us.

Motion to Adjourn : 7:18 PM 0018 UTC