



The Reading Radio Club Bulletin

W3BN W3CCH

Volume 58

Issue Number 9

September 2020

The Reading Radio Club Was Established March 10th, 1921 , ARRL Affiliated February 17, 1922

A Monthly Publication of the Reading Radio Club
Scott (KC3PCS) & Lori Scheirer, Editors (kc3pcs@gmail.com)

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WE WILL MEET IN PERSON SEPTEMBER 4TH, 2020, 7:30 P.M. - HERITAGE CENTER TRAIN STATION

we'll be together
again..



YOUR 2020 RRC OFFICERS

January 10, 2020

By: Rich Ahrens, W3WJC



L to R - Harry Hoffman, W3VBY, Secretary - Ron Waszk, K3RJW, VP
Chris Schlegel, K3ADA, President - Nate Rosenthal, N2ADD, Treasurer

Board of Directors & RRC Officers

2020 RRC OFFICERS

PRESIDENT	Chris Schlegel, K3ADA	Sutehk.CS@gmail.com	(20)
VICE PREZ	Ron Waszk, K3RJW	PolishPICL@aol.com	(20)
SECRETARY	Harry Hoffman, W3VBY	HarryHoffmanJr@juno.com	(22)
TREASURER	Nate Rosenthal, N2ADD	NateØ1PA@comcast.net	(20)

2020 RRC AT-LARGE BOARD MEMBERS

Art Becker, KB3LDI	ABeckerBeConCo@msn.com	(21)
Jason Potter, K3WDF	Radio.K3WDF@gmail.com	(21)
Joe Pietruszynski, AC3DI	JFP0250@comcast.net	(21)
John Engle, AB3SR	JEngle@830weeu.com	(22)
Scott Scheirer, KC3PCS	scott@viewneye.com	(22)

The two-digit number, in brackets, to the right of the BOD member's email address, is the year that their term ends on December 31.

(A normal 3-year term runs from Jan. 1 to Dec. 31, three years later).

The four officers of the RRC are elected from the BOD by the NINE board members at the annual RRC Board of Directors Reorganization Meeting held in January of each year. Please note that ALL nine BOD members have voting power.

Please note: The Board of Director Minutes are available online at <https://www.qsl.net/w3bn/BOD.html> or in written form by request.

meetings

Next Board Meeting: **September 1st, 2020 (Zoom Meeting—Email Chris Schlegel, k3ada@arrl.net to be included)**

Next General Meeting: **September 4th, 2020**

Topic: **Unknown**

Location: **Sinking Spring Heritage Center (Use 991 Climatis Street for GPS)**

PLEASE NOTE THIS MEETING IS AT THE TRAIN STATION!!

WE Exams

Are you looking to take your amateur radio test? Looking to upgrade? If we get enough interest, we can set up a test session before a meeting. Please contact Harry Hoffman

Tel: 610-678-8976 or email: harryhoffmanjr@juno.com.

WEB PAGE OF THE READING RADIO CLUB

=====

Dave Schearer, K3BN - The RRC Web Master

www.readingradioclub.org

or

just Google W3BN



<http://www.facebook.com/RRCW3BN> maintained by Chris Schlegel, K3ADA

UNITED STATES POSTAL SERVICE MAIL (USPS)

=====

Send **ALL** USPS Mail pertaining to the Reading Radio Club to the **OFFICIAL**, and long term, (Since Oct. 1986), Reading Radio Club mailing address:

ATTENTION TO **
READING RADIO CLUB INC
PO BOX 13777
READING PA 19612-3777

** = Officer, title, or name of the person or persons to whom your correspondence is specifically addressed.

**THREE SEVEN TEN
2 METER ACTIVITY INITIATIVE**

=====

By: Rich Ahrens, W3WJC (09/29/2018) (updated 1/27/2019)

You do not need to be IDing on repeaters over a period of a few weeks before you conclude that most repeaters throughout the United States are underused. You ID your station. . . . "This is KA3XYZ listening on 91" and no one returns to your call ID -

IT MAY BE THAT NO ONE IS LISTENING.

Here is an idea that MAY, MIGHT, COULD stimulate some conversation (QSOs) on the Reading Radio Club 146.910 MHz repeater. We might call it the "Three, Seven, Ten" gathering or maybe "T S T" for short.

The thought is to turn on your 2-Meter transceiver at 3:00 p.m., 7:00 p.m., and 10:00 p.m. Identify your station and see if anyone comes back and wants to shoot the breeze. No net control, just some informal Ham Radio conversation.

Let us try this and see if we can pep up activity on the Reading Radio Club, W3BN, 146.910 MHz repeater. The CTCSS is 131.8 Hz.

*Catch up with Jim, N3PRJ, he is usually on the 3:00 p.m. session.
Thanks Jim for being a regular on the RRC 146.910 MHz repeater.*

Dinez Says

By: Chris Schlegel
K3ADA

What a Hamfest! Not only did the Souders attend again, but we had another vendor come out this year. KJI Electronics also attended. With our Hamfest being one of the few being held, I had anticipated a larger attendance. However, all said and done, attendance was about average. There were license plates from many surrounding states in the parking lot. I would like to say THANK YOU to everyone who banded together and put time/effort into organizing and setting up the event.

I'm excited for this months meeting at the Heritage Park train station. It will be nice to have an in person meeting again. Hopefully, I can remember how to run the meetings, hi hi. Looking forward to seeing those who come out!

73,

Chris, K3ADA

October 19th, 2020

The 56th Annual Telephone Pioneer QSO Party
Telephone Pioneer QSO Party Chapter Coordinators
Telephone Pioneer Radio Amateurs
TelecomPioneer Chapter Administrators

The George S Ladd Radio Club (Golden Gate Chapter) invites all Telephone Pioneers, including former and current employees of the telephone related companies, and all other licensed amateur radio operators to participate in the **56th Annual Telephone Pioneer QSO Party**.

We welcome contacts from non-pioneers as well.

The Telephone Pioneer QSO party combines Telephone Pioneering and Amateur Radio. It is a great chance to renew old friendships. Help us celebrate the Annual Telephone Pioneer QSO Party.

For the latest information and results go to: <http://tpqso.com/>

If you are a chapter coordinator, please make every effort to contact all the Telephone Pioneer operators in your chapter.

Included with this letter are the rules, log sheets and a summary sheet. **Please use the summary sheet!**

The Telephone Pioneer QSO Party is scheduled for **Monday October 19, 2020**.

One complaint about weekend operating is the QRM with the various state QSO parties. The event will run eight hours with all modes running concurrently but scored separately.

There will be a special digital only session from 18:00 to 19:00 UTC. The increasing use of the digital modes, especially FT-8, will give all of us a chance to test its popularity.

Please give our announcement the widest possible distribution to all the known Amateur Radio Operators both pioneers and non-pioneers.. Thanks to all the previous coordinators who have made the TPQSO party a great success over the past 53 years.

For more information please call, email or write:

Jim Muijer N6TP
4233 Wooster Ave.
San Mateo, CA 94403
650-345-6973
n6tpjim@gmail.com
73

Jim -- N6TP

Please view their website to get the full announcement with the form to submit when participating.

Red Rose Repeater Association Welfare Net

Hear Ye, Hear Ye,

Have you heard about the Red Rose Repeater Association's Welfare Net?

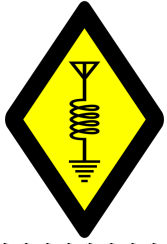
This net takes place every day at 7:45 pm on the W3RRR repeater (147.015 Mhz PL Tone 118.8 hz)

Per their website:

"This serves as a public notice for amateur radio operators in the area of Lancaster County (including those on the fringes of the repeater footprint). There will be daily nets on our 2m repeater, named the 'Welfare Net'. The purpose of this net is to daily bring together the local amateur radio community and allow for round-table updates with respect to this area. If you are concerned, if you have input, please tune in to our VHF repeater every evening 1945EDT for a brief Wellness and Welfare update. Hosted by RRRRA just to give everyone in the listening are a chance touch base amid the current COVID-19 situation. Drop in, connect and say 'HI'! If you have neighbors in your immediate area with a specific need, this might be an opportunity to share and provide needed relief. "

Participants are encouraged to offer information and/or observations with respects to where they are located.

Be sure to check in if you can. Let's help them make this a great resource during the COVID 19 outbreak.



Editors' Remarks

by Lori & Scott (KC3PCS) Scheirer

Wow it's hard to believe we are 2/3 of the way through the year. It's been a strange year so far. There is good news ahead. We get to have an eyeball qso meeting. Doesn't that sound exciting.

We had a great time at Ham Fest. We had a great turnout. As a VE, I was glad to see everyone passed their initial exams. I always hate to have to tell someone they didn't pass that first one.

The new Digital Net seems to be taking off.

I have a few questions for the membership:

#1: Would the membership be interested in a virtual ham class for something such as a license upgrade (just a class, not the test session)

#2: What would the membership like to see in the bulletin? What do you like/dislike about the bulletin?

This is OUR radio club. I'd like to see more activity. The repeater is very lonely during the day.

Let's get active again. Let's have those fox hunts. SMOTAS, and have people come out to our various events. Show the world that HAM RADIO is still alive and kicking!!!

See you all at the meeting.

Scott & Lori

RRC VE TEST SESSION August 8, 2020

By Harry Hoffman, W3VBY

On Saturday morning, August 8, 2020 the Reading Radio Club sponsored its 99th Volunteer Examiner Amateur Radio Test Session. The Test Session was held at the RRC Hamfest site at Heritage Park in Sinking Spring, PA. starting at 8:30 a.m. There were five candidates in attendance.

The Test results were as follows:

2 – Technician Class

3 - General Class

The candidates came from Mifflintown, Reading, and Schwenksville. The candidates were invited to join the RRC and attend future RRC meetings and events.

Our Volunteer Examiners for this test session were: Harry Hoffman, W3VBY; Nate Rosenthal, N2ADD; Scott Scheirer, KC3PCS; Ron Waszk, K3RJW; and Stuart Higgins, W2SLH.

Thanks to our VE Team for a job well done. The test session started at 8:30 a.m. and was completed by about 10:30 a.m. The test materials were packaged and delivered to the Sinking Spring Post Office on Monday afternoon August 10th for shipment by Priority Mail to the ARRL/VEC.

The next VE Test Session will be held at a later date to be announced.

If you need more information on Amateur Radio testing or wish to register for an exam call the VE Team Liaison, Harry Hoffman, W3VBY at 610-678-8976 or send an E-mail to harryhoffmanjr@juno.com. The cost for participating in a test session this year is \$15 payable by check to the ARRL/VEC.

73, Harry Hoffman, W3VBY

MEMBER MAKINGS

Ham Shack Test Equipment on a Budget: The NanoVNA

By Christopher Schlegel, K3ADA

Earlier this year I was planning on giving a presentation to the club on the usage of the RTL-SDR dongle paired with a wideband noise generator to be used as a poor man's spectrum analyzer. There are many uses for a spectrum analyzer in the ham shack such as testing RF output of a rig, filter response, pre-amp response, and many others. Since that time, I have looked into and played around with the NanoVNA, a device that costs about the same as the RTL-SDR and noise generator together (\$60). However, the NanoVNA is far more capable. With that being said, and no in-person meetings being held, I figured I will do a write up for the bulletin on the NanoVNA. So here we go...

For around \$60 this little device is a wonder. A VNA (vector network analyzer) is used to take many different measurements including reflection coefficients and transmission coefficients. From here a slew of other measurements can be calculated by the VNA. It is important to note that the NanoVNA is only half a 2 port VNA measuring the S11 and S21 numbers. The NanoVNA is an open source project that is constantly evolving. As such, there are many different versions out there. Some have larger screens and others have better specs (the NanoVNA v2). I purchased the AURSINC NanoVNA v3.4 (this is the software version not the hardware version). Most vendors will include the calibration kit needed to calibrate the NanoVNA and two test cables. The specifications for the AURSINC NanoVNA follow below:

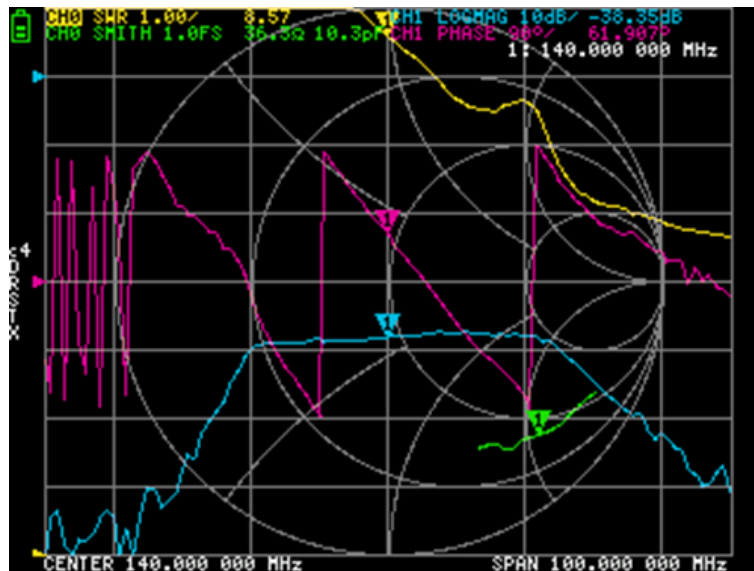
- Display: 2.8 inch TFT (320 x240)
- RF Output: 0 dbm (± 2 dbm)
- Port SWR: < 1.1
- Display: 2.8 inch TFT (320 x240)
- Size: 54mm x 85.5mm x 11mm
- Weight: 63 grams
- PCB: 50mm x 68mm x 10mm (without connector, lever switch)
- Measurement Frequency: 10KHz - 1.5GHz
- Measurement range: 70dB (50kHz-300MHz), 60dB (300M-900MHz), 40dB (900M-1.5MHz) enable extended firmware
- USB interface: USB tyoe-C communication mode: CDC (serial)
- Power: USB 5V 120mA, can use battery powered, maximum charging current 0.8A (battery included)
- Number of scanning points: 101 (fixed)
- ◆ Display Tracking: 4, Marking: 4, Setting Save: 5

It is important to note that this NanoVNA came with a battery built in. Another thing to consider during purchase is the construction. The AURSINC version was stacked PCB with little shielding to the internals.

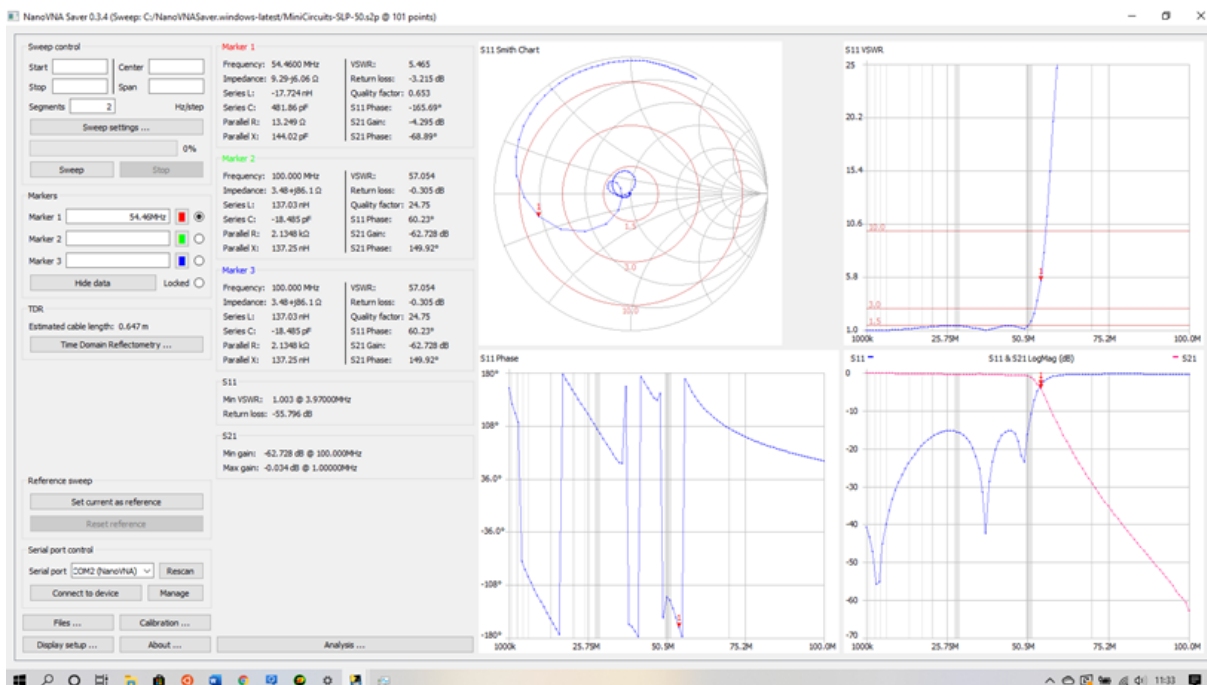


The NanoVNA controls are relatively simple to use and the menus are easy to navigate with a little usage. There is a rocker switch (left: right side of the NanoVNA) and touch screen that can be used to navigate the NanoVNA's user interface. This version uses a USB-C connector to charge the battery and connect to the computer for the PC or Android software that can be used to augment and increase the NanoVNA's capabilities. The

main screen includes the plots and up to 4 traces with the cursor readings. In this example of a pre-amp response you can see the SWR, Smith chart, transmission coefficient, and Phase shift at 140 MHz. You can choose which traces to display and what measurements they are showing.



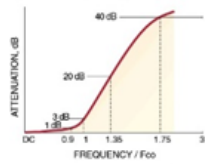
Screenshot of the PC software:



Low Pass Filter Electrical Specifications

PASSBAND (MHz)	f _{co} (MHz) Nom.	STOPBAND (MHz)		VSWR (-1)	
(loss < 1 dB)	(loss 3 dB)	(loss > 20 dB)	(loss > 40 dB)	Passband Typ.	Stopband Typ.
DC-48	55	70-90	90-200	1.7	18

typical frequency response



electrical schematic



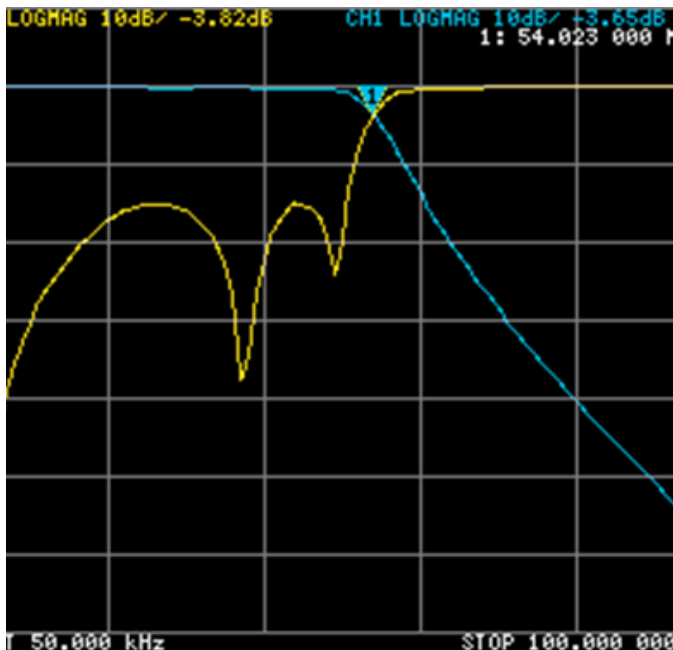
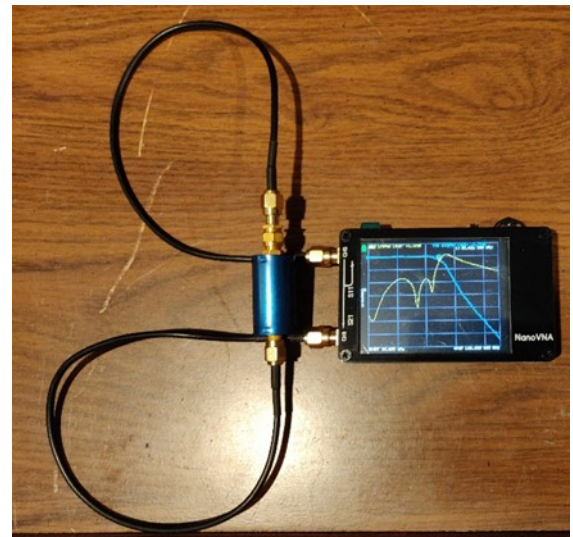
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	\bar{x}	σ			
1.00	0.05	0.0	41.2	1.00	16.62
15.50	0.23	0.1	22.7	8.50	16.73
23.00	0.37	0.1	15.7	15.50	17.87
30.50	0.43	0.1	15.4	23.00	17.45
38.00	0.40	0.1	25.1	30.50	18.79
45.00	0.65	0.1	14.8	38.00	21.89
48.00	0.70	0.1	17.1	45.00	25.87
52.00	1.46	0.2	9.9	48.00	30.56
55.00	4.65	0.3	3.0	49.50	33.62
57.00	7.96	0.4	1.5	52.00	42.09
61.00	14.84	0.5	0.5	53.50	42.83
65.00	20.96	0.0	0.3	55.00	38.77
67.00	23.43	0.6	0.2	57.00	22.20
69.00	26.33	0.7	0.2	59.00	22.03
70.00	27.59	0.7	0.2	61.00	16.66
72.50	30.55	0.8	0.2	63.00	14.04
80.00	38.67	1.2	0.1	65.00	11.17
82.50	41.07	1.4	0.1	67.00	10.62
85.00	43.54	1.6	0.1	69.00	8.06
87.50	45.78	1.8	0.1	70.00	7.57
90.00	47.97	2.2	0.1	72.50	7.70
100.00	56.91	4.1	0.1	75.00	7.14
133.50	68.38	5.2	0.1	80.00	6.57
150.00	67.23	4.2	0.1	81.00	4.93
163.00	68.62	4.6	0.1	82.50	3.61
170.50	69.35	3.3	0.1	85.00	0.84
175.00	69.36	5.8	0.1	87.50	1.23
185.50	77.07	8.8	0.1	90.00	0.73
192.50	69.51	5.2	0.1	100.00	0.70
200.00	71.27	9.7	0.1	125.00	0.69

After purchasing and familiarizing myself with the device, I decided to try an experiment to see just how accurate this little device was. I decided to characterize a Mini Circuits SLP-50, a low pass filter with a cutoff at 50 MHz.

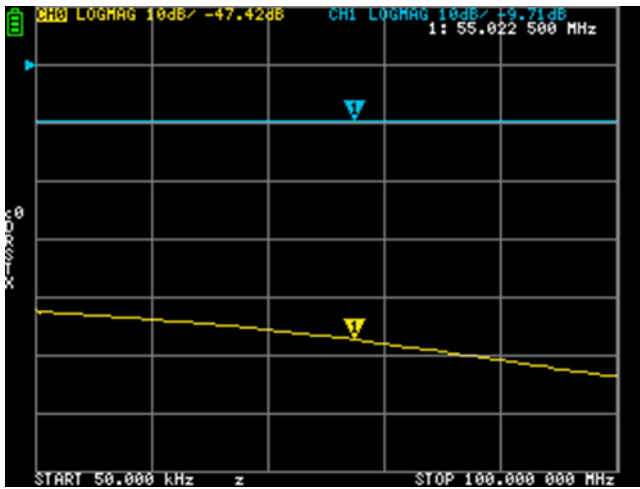
To the left you can see a snippet of the datasheet for the SLP-50. The 3 dB roll off of the filter is specified as 55 MHz. The lower portion shows the insertion and return loss at various frequencies for the filter.

After calibrating the NanoVNA for the frequency span and measurements of interest, I started to work on the setup. Port 1 was calibrated at the end of the barrel connector and setup with the SMA female connection to the filter just as you would find in real usage. It is important to calibrate the test ends as close to real life usage as possible to get the most accurate measurements.



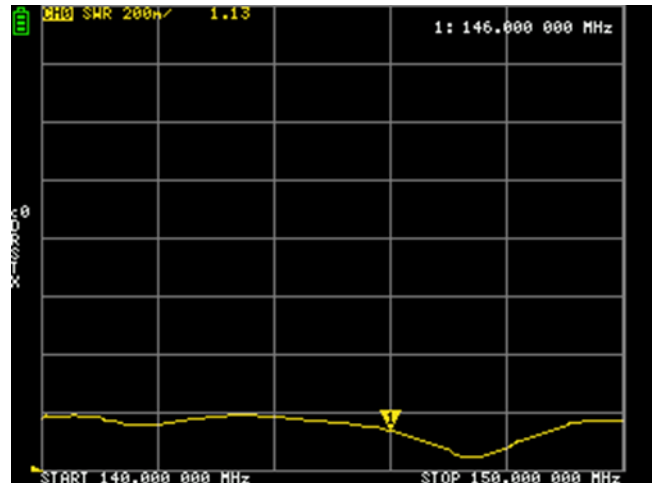
Here is the screenshot from the NanoVNA using this setup. You can see the measured roll off of the filter. At 54.023 MHz. the attenuation is 3.65 dB. Here is where the limitations of the device and my setup come in to play. At 101 datapoints there is not enough resolution to really get an accurate frequency for the 3 dB cutoff. To fix this I would have to redo the setup concentrating on a tighter frequency span around the cutoff frequency. However, for my intent of validating the device, this was close enough for me.

Some further testing and playing around showed that the NanoVNA is indeed a valid and valuable little device for amateur radio operators to have. Two other measurements that I took to show the usefulness of the device follow below:



Here a Mini Circuits SAT-10 10 dB attenuator was being tested. CH0 is measuring the return loss and CH1 is measuring the attenuation. At 9.71 dB of attenuation, this measurement is well within the 0.4% deviation specified in the datasheet for the device.

Here the NanoVNA is being used as an antenna analyzer. The sweep of my base VHF/UHF antenna is from 140 – 150 MHz. At 146 MHz. the SWR of the antenna system is 1.13:1. I tried to compare this measurement with the RigExpert analyzer that I have, however the RigExpert figures the coax type into the measurement whereas the NanoVNA does not.



For approximately \$60, the NanoVNA is a much appreciated test device in the ham shack with acceptable accuracy far out performing the RTL-SDR and noise source setup for a similar price. The NanoVNA project is growing by leaps and bounds with increased performance and capabilities on the horizon. You can learn more about the project and the device (including usage instructions) at <http://nanovna.com>.

The Reading Radio Club 2020 Hamfest

Heritage Park, Sinking Spring

Saturday, August 8, 2020

By Jim Nicholas, W3ITH

The Reading Radio Club 2020 Hamfest was held at the same location as last year, Heritage Park in Sinking Spring, on Saturday, August 8, 2020. After a week of on and off rain showers, the club was fortunate that hamfest morning began with clouds and sun to help the grounds dry out. But that's not really when the hamfest began. As we say, it begins the day after the previous hamfest closes.

HAMFEST PREPARATION

Weeks before the hamfest, and without a clearly certain decision that the hamfest was a "go" due to the COVID issue, the RRC hamfest committee began to mobilize. ARRL/VE tests were ordered, publicity efforts involving the ARRL and Eastern Pennsylvania radio clubs were started and door prizes were bought. Vendors were contacted and volunteers recruited. Road signs were refurbished. COVID signs were made. Closer to the hamfest date, the freight station kitchen, restrooms and main room were cleaned. Personal protective equipment (PPE) was purchased, as were sanitizer bottles, gloves, and facemasks. An eight foot by 3 foot plastic barrier was constructed to protect the food workers. Food and beverages were purchased. Estate sales items were set up. Final planning for "where does this or that go" was done.

On Thursday evening before the event, Harry Hoffman, W3VBY,, Jim Nicholas, W3ITH; Brad Wegman, KC3HKR; Walt Grube, WD8MNE and Dave Wiley, K3MXS gave the park a final check-up. We were almost there.

On Friday, Mary Anne Nicholas, N3TVT purchased the food and drinks for the event. Road signs were placed by Jim and Dave. We also placed (with a sledge hammer) the stakes and yellow caution tape to delineate parking and selling areas. I think we both needed Advil after that.

COVID RULES COMPLIANCE & The FRONT GATE

The Reading Radio Club was given a choice this year. Should we cancel the hamfest or work even harder to host one? The choice is evident. We decided to do everything in a safe, cautionary manner to assure that we have a successful outcome. The front gate volunteers, Walt Grube, WD8MNE; Joe Pietruszynski, AC3DI; RRC Pres. Chris Schlegel, K3ADA; son Aidan Schlegel, KA1DAN; and Gate Supervisor, Dave Wiley, K3MXS, not only greeted attendees and received their fees, but issued all comers a facemask and explained that they needed to wear one. Also, COVID signs made by Joe Pietruszynski, AC3DI, were in plain view around Heritage Park. The freight station food was served and paid for from behind a plastic barrier. Eating was done outside on the freight station porch. Sanitizer bottles, recycling and trash cans were available. Thankfully, all complied and made the day enjoyable.

PARKING

But the front gate effort did not stop there. The 150 attendees needed an organized way to park and then be able to exit without being "parked-in". So the parking staff worked in a non-stop, rapid pace to ensure that vendors were happy being close to the buyers and that buyers were given an appropriate place to safely park. The parking staff made certain that the hamfest buying and selling could be done in an organized manner, despite the fast pace of the event. Thanks, guys!

ARRL/VE TESTS

Starting at 8:30 a.m. sharp, the RRC ARRL/VE Team went into action and very competently administered tests to five eager candidates.

Test results were as follows:

2 passed the technician test

3 passed the general test.

The five were invited to join the RRC and attend future club meetings. The testing was completed at 10:30 a.m. All testing materials were securely managed throughout the test session. On Monday, the items were packaged and mailed to the ARRL/VEC using U.S. Postal Service priority mail.

Our Volunteer Examiners for this test session were: Harry Hoffman, W3VBY, VE Coordinator; Nate Rosenthal, N2ADD; Scott Scheirer, KC3PCS; Ron Waszk, K3RJW; and Stuart Higgins, W2SLH. The next VE Test Session will be held at a later date to be announced.

If you need more information on Amateur Radio testing or wish to register for an exam, call the VE Team Liaison, Harry Hoffman, W3VBY at 610-678-8976 or send an E-mail to harryhoffmanjr@juno.com. The cost for participating in a test session this year is \$15 payable by check to the ARRL/VEC.

DOOR PRIZES

As the morning progressed, door prizes were won by paying attendees, each of whom received a door prize ticket. A \$50 and two \$25 ARRL gift certificates were awarded. Thanks, ARRL!

Ten cool blue and red Yaesu baseball-type caps were also won. And ten more caps were given to hamfest volunteers. Thanks, KJI Electronics! KJI Electronics was a busy vendor at the hamfest. They are a dealer for Icom, Kenwood, Yaesu, and other brands. KJI Electronics is located at 610 Pomton Ave., Cedar Grove, NJ, 07009. Telephone number is 973-571- 1930. Fax number is 973-239-4389. Email is k2kji@aol.com.

Also, a very nice 2-meter mobile antenna was donated by a veteran RRC vendor and won by a lucky attendee. Thanks to Sauder Electronics, Lebanon, PA! Telephone 717-389-6077. Give the above two vendors a call for your next ham radio needs.

I must say there was a lot of excitement surrounding the three major door prizes won at the hamfest. These were the three newly-designed Baofeng UV-5RTP Dual Band

2m/70cm 8W High Power HTs. One of the three winners was a new ham who had just taken and passed her first amateur test an hour before she won her first amateur radio. Needless to say, she was having a great day!

At the FREIGHT STATION

On the side porch of the freight station, Ron Waszk, K3RJW, was pulling double-duty by acting as the talk-in station (RRC Repeater 146.91/.31, tone 131.8) and as a seller of RRC estate items for sale. Jim Nicholas, W3ITH, helped in this sales endeavor inside the freight station while assisting with food sales, door prizes, sign-in and the RRC and ARRL information table.

Almost all of the estate items were sold very quickly. In particular, the items we hams lovingly call “boat anchors”, the thirteen receivers, transmitters and other very heavy items from years gone by, all sold except for two. It is said that Ron will use these two items to help his truck navigate in future snowstorms.

At the RRC Café, inside the freight station, Mary Anne Nicholas, N3TVT, RRC Café Supervisor, was busy preparing Jimmy Dean Breakfast Sandwiches and coffee for early-arriving hamfesters. Also working in the café were Janine Galiyano, K4AJZ, Lori Scheirer, Jessica Landis, KC3PIG, and Alex Nicholas.

As the day went on, hot dogs, pastries, Klondike Bars, sodas and bottled water were sold to many hungry hamfest attendees.

Harry Hoffman, W3VBY, event chairman, set up the test station, which included a tool kit, volt-ohm meter, HF/VHF/UHF large dummy load, and VHF and HF antennas. A few people used the test station which powered up some soon to-be-sold estate items.

John Engle, AB3SR, ran the very professional public address system, which he assembled from his own equipment. By noon, the hamfest was literally wrapping up as vendors packed up any unsold items.

SUNDAY

Of course, there is the packing up and tidying up and that needs to be done after a hamfest. Dave Wiley, K3MXS, was loading up stakes and what seemed like miles of yellow tape into his trunk. Mary Anne Nicholas, N3TVT, was cleaning the inside of the freight station. Ron Waszk, K3RJW, and Jim Nicholas, W3ITH, loaded boxes of paper goods, extension cords, unsold estate items, trash cans, recycle cans, and other items needed for a hamfest into their vehicles. Harry Hoffman, W3VBY, took care of refuse and recycle removal as we wanted to leave the park as clean or cleaner as when we first arrived. And we always do.

ANYWAY, WAS it a SUCCESS?

Yes, the event was a success! All of our guests were pleased to come to our RRC Hamfest. One can judge our hamfest by the number of exiting attendees who drove down

the driveway leading out of the park, and leaned out of their car windows to say "Good hamfest!"

We heard that a lot. Many of the hamfesters were recognized as repeat visitors. One ham visits us every year and heads directly to the estate items. Another asks every year, "Hi! Have any tubes this year?" So that kind of gratitude propels us to do it again the following year.

A big thank you goes out to all who participated in the event. We are gaining a reputation as being perhaps not the largest hamfest, but we are certainly the friendliest. Did you know that we had an amateur visit us whose home QTH is the Ukraine? Bondan, UR5BKH. News of our hamfest has really gotten around. See you there next year!

RRC members who attended are listed below:

Eric Cintron Ortiz, KN3M

Jon Durand, N8EUL

John Engle, AB3SR

Janine Galiyano, K4AJZ

Dennis Goodling, N3JRW

Walt Grube, WD8MNE

Stuart Higgins, W3SLH

Harry Hoffman, W3VBY

Jessica Landis, KB3PIG

Don McKinney, W3FCT

Alex Nicholas, daughter Jim & Mary Anne

Jim Nicholas, W3ITH

Mary Anne Nicholas, N3TVT

Joe Pietruszynski, AC3DI

Nate Rosenthal, N2ADD

Lori Scheirer, XYL Scott

Scott Scheirer, KC3PCS

Aidan Schlegel, KA1DAN

Chris Schlegel, K3ADA

Kevin Stodart, N3SYT

Craig Wanner, K3CRG

Ron Waszk, K3RJW

Dave Wiley, K3MXS

Hamfest Photos

In No Particular Order—Submitted by Jim Nicholas, W3ITH









The Trans-Siberian Railway and FT8

By Joe P, AC3DI

I have seen some online comments that digital FT8 and FT4 is nothing more than filling out logs. I guess the same comments were made when radio evolved and HAMs no longer used spark gaps. True, you don't get to actually talk, but I doubt other than English, you could carry on a conversation with someone a world apart from your location. Sometimes we cannot even converse locally, an example would be trying your hand at Pennsylfaanisch Deitsch at a local farmers market.

We all seem to be missing an opportunity with our contacts that we make to find out who and where they live. I will give you a perfect example, I am sure you have heard of the Orient Express from movies, how about a place called Achinsk. I certainly did not, but after a contact on FT8 with RA0ADQ Grid SQ NO56, I was about to find out where he was actually from and where NO56 was.

“Achinsk (Russian: А́чинск) is a city in Krasnoyarsk Krai, Russia, located on the right bank of the Chulym River near its intersection with the TransSiberian Railway, 184 kilometers (114 mi) west of Krasnoyarsk. Population: 109,155 (2010 Census).”

I doubt if any of you knew that!!.

“Achinsk is one of the oldest known inhabited places in the area. Paleontological study has shown that people lived here as early as 28,000–20,000 BCE. Some of these ancient caves are located 2 kilometers (1.2 mi) east of the city. “

It is or was the location of a Russian arms depot that exploded in 2019, you can find spectacular video of city and the explosion online.

You see if I had not been able to contact Vladimir as my Asia CQ, you and I would never have known this place existed or some of the history behind Grid Square NO56.

AC3DI

TRIVIA

Submitted by Don McKinney, W3FCT:

A Tube can be tested with a certain number of parts. How many parts and what are they?

Answer

Here is the answer to the trivia question what is the minimum number of parts to get a reading of how good it is. It takes just 3 parts to test. A transformer, a resistor, and a meter. See the attached diagram.

Don W3FCT

exciters and tubes, and a tube test-be, there is to evaluate transmitting important re used — ge power life. The junk box accepta-

polarized properly, *i.e.*, the grid must be going positive as the plate is going positive. To check this, reverse the filament connections. Choose the

more as indicated on the meter. Note that this meter indication is the average of half-wave rectified current. Tubes providing 90 mA or less should

fig. 1. Simple tester for 6146 transmitting tubes is easily built from junk-box parts.

one which yields the greatest plate current. The tester is then ready for use.

A good tube will draw 115 mA or

be discarded or, at most, kept for emergency spares. The tester is also useful for balancing pairs of tubes.

Gary Jiegel, W6KNE
W6KNE

Meeting Highlights

THE July Eyeball Meeting was cancelled due to COVID-19 Concerns

Unfortunately, due to the COVID 19 virus, there was no eyeball meeting in July. There will be a meeting at the Train Station on September 4th, 2020.

RRC MEETING ON THE AIR (RRCMOTA)

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By: Rich Ahrens, W3WJC

(08.22.2020)

Check into the **RRC MEETING ON THE AIR** on the Friday evenings that we do not have an in-person meeting. The net, on 146.91 MHz, starts at 8:00 p.m. with the latest AMATEUR RADIO NEWSLINE REPORT from the West Coast.

We then have an exchange of information that may be of interest to the members of the Reading Radio Club as well as those that are not RRC members.

The last part of the net is a roll call where we usually have 13 to 56 stations check-in and test their FM equipment. The CTCSS is 131.8 Hz. (3B).

The net has been in operation since Friday January 21, 1994, when we had 13 check-ins during that first session, over 26 years ago.

On Friday August 28, 2020, we had session number 1131, and Jim Nicholas W3ITH, was the Net Control. The next RRCMOTA will be on Friday September 11, 2020, starting at 8:00 p.m. on the Reading Radio Club 146.910 MHz W3BN analog repeater. Dave Wiley, K3MXS, will be the Net Control for session number 1132, on Friday, September 11, 2020, starting at 8:00 p.m. local time.

NOTE: There is an In-Person RRC meeting on Friday September 4, 2020, at Heritage Park, starting at 7:30 p.m.

FYI: AMATEUR RADIO NEWSLINE is the "Amateur Radio's independent on the air news and bulletin service" and is not a service of the American Radio Relay League. (ARRL).

Everyone, RRC Members and those that are not members,
are invited to tune in and check into the

READING RADIO CLUB MEETING ON THE AIR

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RON'S RAVINGS

VICE PRESIDENT'S MESSAGE

Including The Fox Hole, Simplex Meeting on the Air, and More.

by Ron Wazsk, K3RJW

WELL, WELL, its finally starting to open up a little. Our first face to face will be 4 Sept at 1930 hours. It will be a greatly appreciated meeting and thanks to Harry Hoffman for getting the train station for our meeting.

We will be picking both the Fox get together and the SMOTA dates on that evening,. We are unsure of the FOX hunt yet. As to HOW many members will even be at the meeting and then who will be interested in having the hunt. I do know there are about 2 or 3 that want to have it, but again, that is in the wind yet.

As for the SMOTA, it seems like a Saturday afternoon seems to be the best day for it now. The last SMOTA was low in sign ins. Again, we will wait till the 4 Sept meeting to see what the best day would be. I do not want to interfere with any nets on the air now. Therefore, a vote would really set that up compared to Joe and I picking a date and time.

As of now, we have 5 regulars for the FLDIGI net and we are really starting to get things together. We help each other every week setting things up and finding problems as we all are kinda new to the service. We have 2 that are well-versed, both Dave and Harris are pretty well trained, and can give excellent ideas on how to repair settings.

That's all for now. Enjoy the weather, its not real bad, but could change in a heartbeat.

RON K3RJW, 73

HELPING HAMS

Have an idea that would help other hams? Are you a ham with a question that has stumped you? Do you have equipment you need to test, but aren't sure how, or if you have the parts to test it with? This is the section for you. In this section, we will post requests for help / offers for help. Please send your questions or suggestions to kc3pcs@gmail.com. We will post solutions here when appropriate.



50 YEARS AGO

BY RICH AHRENS, W3WJC

Due to an injury, Rich was unable to put together the 50 years ago for us this month. Get well soon Rich.

CHECK THIS OUT

Remember to contact these RRC Hamfest vendors when purchasing amateur radio equipment--

SAUDER ELECTRONICS to purchase ham radio-related items such as connectors, mobile antennas and many other items. Telephone 717-389-6077.

KJI Electronics, located at 610 Pomton Ave., Cedar Grove, NJ, 07009. Telephone number is 973-571- 1930.

Fax number is 973-239-4389. Email is k2kji@aol.com

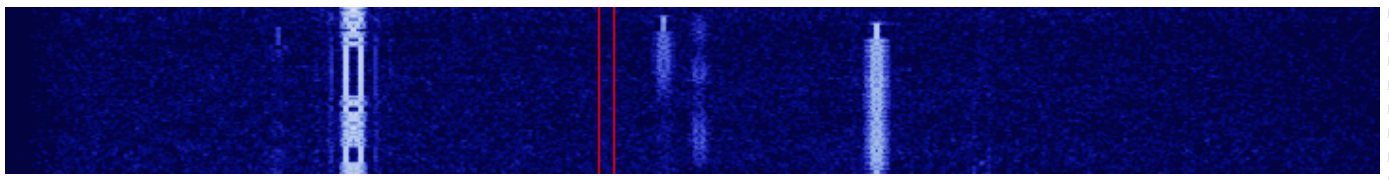
Repeaters & Nets

ACTIVITIES ON THE RRC REPEATER
146.910 MHz RPTR - CTCSS = 131.8 Hz (3B)

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QCWA READING CHAPTER 31 NET
Mondays at 9:00 p.m.

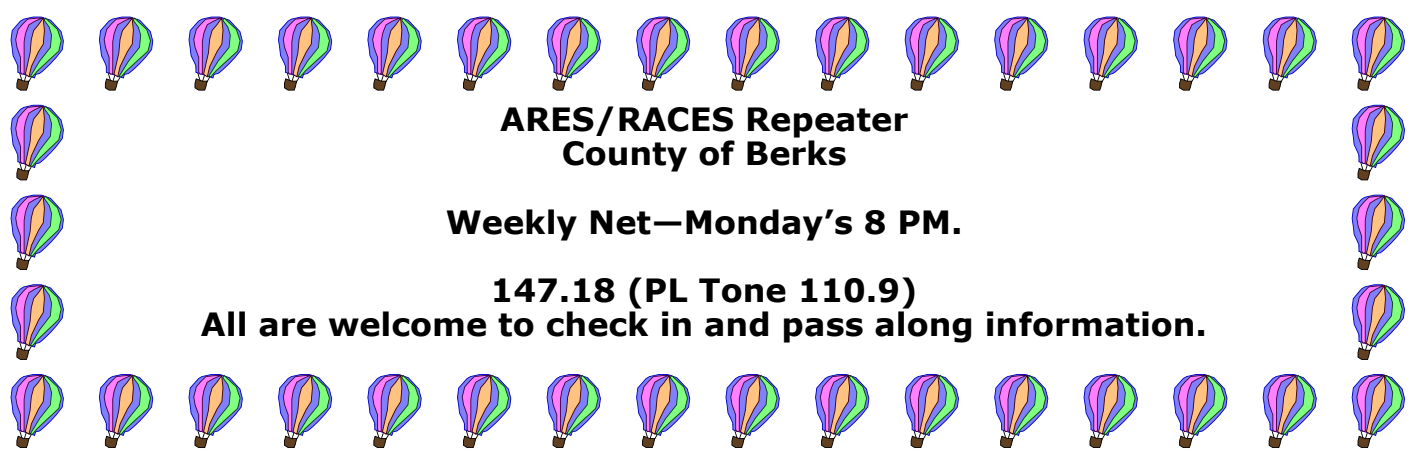
RRC MEETING ON THE AIR NET (RRCMOTA)
Fridays at 8:00 p.m. (Started January 1994)
(Other than Club meeting nights)



*** DIGI Net ***

Run by Harris, KC3PBI, Thursdays at 7:30 PM on the W3BN Repeater.

Check in and learn how to use FLDIGI and the digital modes.



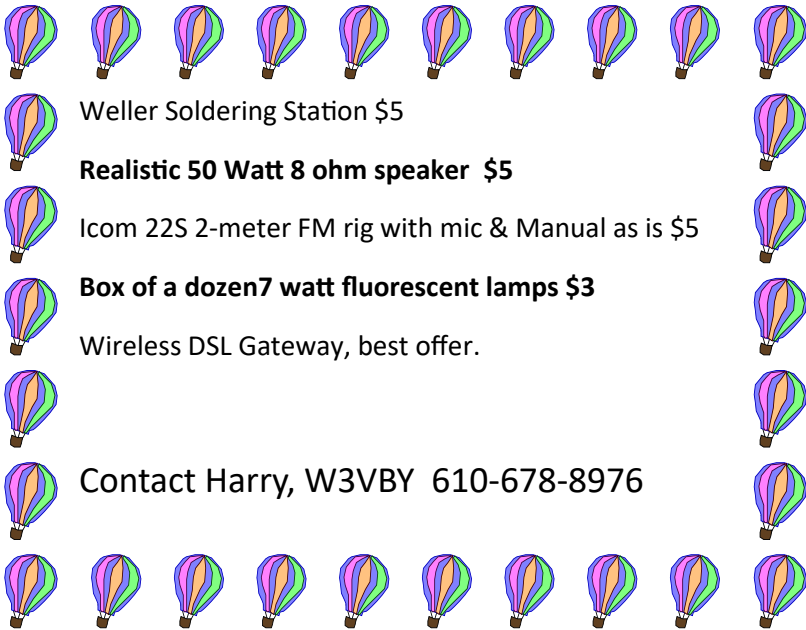
ARES/RACES Repeater
County of Berks

Weekly Net—Monday's 8 PM.

147.18 (PL Tone 110.9)
All are welcome to check in and pass along information.



Please note: Ads placed here will run for 2 bulletins unless you let the editor know you still want them posted, deleted, or changed.



Weller Soldering Station \$5

Realistic 50 Watt 8 ohm speaker \$5

Icom 22S 2-meter FM rig with mic & Manual as is \$5

Box of a dozen 7 watt fluorescent lamps \$3

Wireless DSL Gateway, best offer.

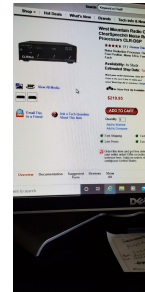
Contact Harry, W3VBY 610-678-8976

WEST MOUNTAIN RADIO Clear Speech digital signal processor. Wired for Anderson Power Pole 12v. Brand new, never used, incompatible with my Heil Pro headset.

Paid \$233.00, selling for \$125.00.

Call 484-955-9381 leave message.

W3WZN.



MFJ 269C antenna analyzer with wall wart 110v power supply and Nifty Fifty operation guide as well as factory manual. One year old, can't tell from new, works 100%. Paid \$340. Sell \$285.

Call 484-955-9381 leave message.

W3WZN.



WANTED:

HF TRANSCEIVER & TUNER

New ham seeks HF base station / radio for access to 10m and beyond. I'm well situated to do a long horizontal wire antenna.

Contact Harris, KC3PBI on the air or (917) 359-2088 phone/text.

Please Note: The Editors and/or RRC are not responsible for items listed on this page.

Descriptions & Pictures are supplied by the Seller.

Membership Statistics

Send all license and mailing address changes to:
 RRC Treasurer Nate Rosenthal, N2ADD, at NateØ1PA@comcast.net or N2ADD@arrl.net
 Please let us know if you upgrade your license. Email to Scott, KC3PCS, and Lori at
 KC3PCS@gmail.com with updates.

By: Rich Ahrens, W3WJC - RRC Historian

(08.22.2020)

STATS AS OF SEPT. 1, 2020

Full Voting Members: 68
 Associate (Non Voting) Members: 19
 Supporting (Non-Voting) Members: 2
 Total: 89

1/4 of Full Voting Members
 required for a quorum. (17)

53 RRC Members are members of the ARRL (60%).

87 RRC Members receive the RRC BULLETIN via email (100%).

76 RRC Members have a Broad Band ISP (88%).

"Honorary Membership for Life"

Jim Nicholas, W3ITH

By RRC BOD action on December 8, 2009.

"Life Member"

Rich Ahrens, W3WJC

By RRC BOD action on June 6, 2006.

89 = Total RRC membership as of Sep. 1, 2020

90 = Sep. 2019	105 = Sep. 2008
92 = Sep. 2018	116 = Sep. 2007
85 = Sep. 2017	115 = Sep. 2006
75 = Sep. 2016	124 = Sep. 2005
81 = Sep. 2015	126 = Sep. 2004
85 = Sep. 2014	136 = Sep. 2003
86 = Sep. 2013	132 = Sep. 2002
87 = Sep. 2012	129 = Sep. 2001
89 = Sep. 2011	124 = Sep. 2000
97 = Sep. 2010	123 = Sep. 1999
100 = Sep. 2009	127 = Sep. 1998

There were 193 Members in 1978

Extra Class: 39 (44%)

Advanced: 5 (6%)

General: 23 (26%)

Technician: 20 (22%)

Novice: 0 (0%)

No License: 2 (2%)

May not total 100% due to rounding

Data may not be up to date

Checked FCC for upgrades August 22, 2020

By Rich Ahrens, W3WJC

RRC Calendar of Events

September 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		4 7:30 pm Board Meeting—Zoom	2	3 Digi Net 146.91 7:30 PM	4 7:30 pm Meeting Train Station	5
6	7 ARES/RACES 147.18 (8 pm.)	8	9	10 Digi Net 146.91 7:30 PM	11 MOTA (8 pm)	12
13	10 ARES/RACES 147.18 (8 pm.)	15	16	17 Digi Net 146.91 7:30 PM	18 MOTA (8 pm)	19
20	17 ARES/RACES 147.18 (8 pm.)	22	23	24 Digi Net 146.91 7:30 PM	21 MOTA (8 pm)	26
27	24/31 ARES/RACES 147.18 (8 pm.)	29	30			

PLEASE NOTE:

September 1st, 2020—Board Meeting 7:30 PM—Zoom

September 4th, 2020—General Meeting—Sinking Spring Train Station—7:30 PM

On the Fridays, that we do not have an in-person meeting we will have a "Reading Radio Club Meeting On The Air" (RRCMOTA) on the RRC 146.910 MHz repeater starting at 8:00 p.m. The CTCSS is 131.8 Hz.

September Birthdays: Nader Rahmanian, KC3NWP; Edward Tatham, KC3GLL; George Martin, Jr, None; Dennis Goodling, N3JRW; Scott Scheirer, KC3PCS;

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The PRIMARY purpose of The Reading Radio Club Bulletin, is to provide, to the membership, timely information about the activities of the Reading Radio Club, Inc.

IN ADDITION, the RRC BULLETIN provides an easily searchable and accurate historical record. The RRC strongly recommends membership in the American Radio Relay League (ARRL) as well as membership in a local Amateur Radio Club. The READING RADIO CLUB BULLETIN is copyright © 2020 by the Reading Radio Club, Inc. Opinions expressed in the RRC BULLETIN are those of the writers and do not necessarily reflect the opinions of the Reading Radio Club, Inc, the RRC BOD, or the RRC membership. Material from this RRC BULLETIN may be reproduced in whole or part, without Additional permission, if credit is given to the READING RADIO CLUB BULLETIN and the author.

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September 1st, 2020 - EMAIL VERSION STARTED ON FEBRUARY 10, 1998.
Circulation: Over 100 Members & Non Members, Clubs and Organizations.
THE FREQUENCY OF PUBLICATION IS MONTHLY.

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Got an idea or an article for the Bulletin? Be sure to send it to us kc3pcs@gmail.com. All submissions are welcome.



Deadline for the RRC bulletin is always the 25th of the month. However, earlier is better. Please submit to kc3pcs@gmail.com.