



THE RICHMOND HAM

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June 2019

THE RICHMOND AMATEUR RADIO CLUB will meet Friday, June 14th 2019, 7:00PM, at the Bon Air United Methodist Church, 1645 Buford Road.

Coming Events:

Manassas Hamfest, June 15th
Field Day, June 22-23rd

This Month's Program:

Ken Zutavern, K4ZUT will give a demo of some simple test equipment that new hams can use.
Jason Pye from RATS will speak about Field Day.

Richmond Amateur Radio Club

Meeting Minutes May 10, 2019

The regular meeting of the Richmond Amateur Radio Club was called to order at 19:00 on May 10th, 2019 at the Bon Air United Methodist Church by President John DeMajo, (K5HTZ).

Members Present

All present signed RARC Log Book
Last month's Minutes – Motion to accept by Tom Flippen, carried.

Treasurer's Report

Ken Leidner, (WV0L) gave the Treasurer's Report, with an ending balance of \$9517.25. The report was approved unanimously. Ken presented 2 prospective members: Kathleen Adams (KN4UMD) and David Laveck (W0COP). Motion to accept by David Robinson, 2nd by Tom Flippen, approved unanimously.

Pending VA. Law concerning Ham Radio:

Win Grant updated us on the pending Cell phone law, which, due to poor wording, will apply to Amateur Radio used in motor vehicles. The law as passed only applies to Work Zones, which gives us time to work on improving it.

Committee Reports: License School is finished and testing is May 11th.

New Business and Announcements

- 1)RARC will hold a Yard Sale on May 11th from 8 AM until Noon at Bon Air United Methodist Church. Items for sale will consist of surplus RARC equipment and donated items. Proceeds to benefit RARC Treasury.
- 2)Builders Group meets May 21st
- 3)Field Day of the Past has approached us to set up an Amateur Radio exhibit on September 20-22

Adjournment

Meeting was adjourned by vote. Mac Lyle from Boy Scouts gave a talk about using Ham Radio in the Merit Badge Program and starting a Radio Club for scouts. He needs equipment and expertise to set up a permanent station at Camp Brady Saunders. Bruce MacAlister has donated a Kenwood TS 940 and the club will provide assistance for this project.

The next general meeting will be at 19:00 on June 14th, 2019 at Bon Air United Methodist Church.

Minutes respectfully submitted by: David F. Robinson (KJ4LHP), S

From The Prez

I am proud to announce that, with the help of our members, we were able to supply Mac Lyle's Boy Scouts from Goochland with the equipment for a complete HF-VHF station. Mac has been keeping us informed on the progress of securing a place to install what will be the scout troop's official club station. We anticipate that Mac's efforts, along with our donation, will enable many of the area scouts to obtain licenses and to enjoy the Ham Radio hobby in the future. I also want to thank all those who contributed time and donated equipment for our 2019 garage sale, which was held on May 11th. I understand that total sales amounted to \$1240.00, with the club donating 10% of the gross to BonAir Methodist church for

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the use of their hall in which to hold the sale. At our June meeting, we will be hearing from Jason Pye about this year's planned Field Day activities, and Ken Zutavern will be presenting a program on construction projects that might be of interest to new hams, so please be sure to attend.

John, K5HTZ

RARC VE News FCC EXAMS EVERY OTHER MONTH

RARC offers VE Testing Sessions on the second Saturday of odd months except June to cover Field Day instead of July: Bon Air United Methodist Church, 9 AM.

The June testing session will be on the 22nd at Field Day at the Laurel Park Recreation Area.

If you have questions about a session, please see our website, www.rarclub.net or contact Allan, WA3J, at 804-399-8724, or ve@rarclub.net

Club Info...

RARC meets on the second Friday of each month at 7:00 PM, at the Bon Air United Methodist Church, 1645 Buford Road.

We offer 10-week license prep classes in September and March with exams following. Members provide VE testing sessions on odd-months during the year.

Join the Richmond Amateur Radio Club.

You don't have to have a ham license, just have a genuine interest in the hobby.

Annual Dues are:

80 and over \$0

Regular Membership \$20.00

Lots of information about the Club and our activities is available on our website, www.rarclub.net.

Nets

RARC has the first and only D-STAR digital repeater in the area. 147.255 (+ 600), 443.7125 (+ 5) and now 1284.0000 (-20). In addition to our Wednesday local D Star net (below), we link the D Star VHF module for the National Capital Region D Star Net on Wednesday nights at 9pm. On Tuesday nights at 9pm, we link our VHF module to the North Carolina D Star Net, and on Sunday nights at 9pm to the South Eastern D Star Weather Net.

Beginning on March 5, 2014, the RARC D Star Net which meets on Wednesday nights at 8:00pm will be accessible on our three D Star modules, all of which will be linked.

You can use any of the three frequencies, 2 meters, 70 cm or 23 cm, and you should hear and be heard by everyone.

If you participate in the net via DVAP or DV Dongle, you must link your device to Ref 062D rather than to any of our modules. Since the W4FJ stack will all be linked to Ref 062D, anyone linked to that reflector will be connected to the net.

Sunday	7:00 pm	50.135	USB
	7:30 pm	52.525	FM
Wednesday	7:00 pm	28.475	USB
	8:00 pm	147.255	D-Star Rptr
	8:15 pm	145.730	Packet

MRA

Interested in information or support of the **Metropolitan Repeater Association (MRA)?**

Call Ed, KG4SNK, at 804-513-1947. The sole business of the MRA is to own, operate and maintain the 145.430 repeater.

Show and Tell!

If you have an item, idea, latest and greatest, or whatever gizmo; please bring it to the RARC meeting. We have a table (usually) set up near the front where you can place your item and share/discuss it with others as they arrive. We also have a section of the agenda set aside for members to discuss their "Show and Tell" item(s). No need to be tentative; we are INTERESTED in what you are doing, how you are doing it and, in true Ham fashion, how much it costs!

Radio Makers instead of RVA MakerFest

The Fall RVA MakerFest at the Science Museum has been canceled. The MakerFest board and the Science Museum of Virginia management couldn't agree on the cost sharing.

So, we're going to have a Radio Makers festival (aka, fest) in early November at the Richmond Railroad Museum on Hull street near the James River. We need club members and other Hams to help staff it.

Ham Radio and the RARC have been part of the RVA MakerFest since it started in 2015. It lets several thousand people see that Ham Radio is not dead, not just part of their grandfather's or uncle's generation. It's very modern, uses all the latest technology and – at 750,000 US Hams – is very much alive. The board of the Old Dominion Chapter of the National Railroad Historical Society kindly offered us the use of their museum for our festival.

Doing it on our own brings a couple more responsibilities:

1. We need hams with their HTs to direct parking. The museum volunteers have lots of experience with that. A few of us need to volunteer and learn from the museum folk.

We'll work in shifts so you're not stuck with it all day.

2. We need a few hams with HTs to give directions to the visitors and do general crowd control. Again, the museum folk can teach us and we will work in shifts.

3. We need a person or two to lead the publicity. If you know much about contacting the Times-Dispatch, Style, Richmond Magazine and the TV stations, raise your hand, we need your help.

4. We need someone as net control for all the other Hams walking around with those HTs.

(Okay, that's four more responsibilities.)

We already have a core team that knows which exhibits attract non-ham visitors, how to set up the tables, hang antennas, etc. after four years of doing it.

Need to know more? Contact me at

w4bru@arrl.net

or 804-353-4269.

Bruce MacAlister, W4BRU



John L. Reinartz, K6BJ

In John Reinartz's obituary it calls him "radio pioneer and inventor who was once called the greatest Amateur Operator in America". Here is a little about this not well known but certainly not forgotten pioneer of Amateur Radio.

John L. Reinartz was born in Germany in 1894, the oldest of seven children. In 1904 the family migrated to America, where they settled on a Connecticut farm. When he was 14 years old, John became interested in the new science of wireless. He erected a 600-foot wire between treetops and went on the air with a spark-gap station. In these days, before government licensing, it was common for experimenters to use their initials as call letters. John chose to use JL as

his call. Ten years later, during World War 1, Reinartz taught wireless to military radio operators. He was one of the large numbers of amateurs who joined in the military effort. The ARRL was even forced to suspend publication of QST during the war when the editor was called to service in the Army Signal Corps. Around 1921 John Reinartz developed a new receiver circuit, called the Reinartz Tuner. The unit had an unheard of tuning range from 200 meters down to 28 meters. Construction information was published in QST and numerous other magazines. Thousands of experimenters built the receiver. It was the predecessor of modern day multi-band receivers.

In 1921 Reinartz began publishing a free magazine, *How to Build Receivers and Transmitters at Low Cost*. Throughout the twenties he was a prolific contributor to QST, Radio News and other magazines. Many of his articles dealt with improvements to his Reinartz Tuner.

With the coming of federal licensing of radio stations, John was assigned the calls 1XAM and 1QP. On November 27, 1923 the first successful two-way trans-Atlantic amateur communication took place. 1XAM was one of three stations participating in this feat. 1XAM and 1MO were in the U.S. and 8AB was located in France. All three stations utilized Reinartz designed transmitters and receivers.

The October 1924 issue of QST reported that 1XAM was copied solid in Australasia (Australia/New Zealand) on May 29 of that year. Reinartz was operating CW at 108 meters, running 1 KW input.

Propagation of radio waves was not well understood. Reinartz was driven to achieve ever-increasing communication range. To achieve this he conducted numerous studies of antennas and of propagation during the early and mid nineteen twenties. He devoted much of his effort to solving the *problem* of skip in short wave communications. His article *Reflection Theory of Short Waves* was published in the April 1925 issue of QST. He presented an engineering explanation of the phenomena of wave propagation.

In 1925 Reinartz set a new record for DX by communicating with 6TB in Santa Monica, California on 20 meters at high noon.

Reinartz' work attracted the attention of the U.S. Navy. He was recruited as radio operator for an expedition to the North Pole in June of 1925. Commander MacMillan, USNR, headed this project.

Reinartz designed the short wave radio gear used aboard the expedition ship Bowdoin. The second in command of the expedition was Commander E. F. MacDonald, Jr., president of Zenith Radio Corporation, who was stationed aboard the Neptune.

Neptune was equipped with marine radio gear produced at Zenith Laboratories. Reinartz collaborated in the design of the Zenith equipment.

One stateside city was in daily contact with Reinartz and the Arctic explorers. In Cedar Rapids, Iowa a young high school student, named Arthur Collins, maintained daily schedules from his amateur station 9CXX. Collins later established the radio company that bore his name. It was a long-time producer of high quality amateur and commercial radio communication equipment.

Two radio-equipped airplanes played a key role in the exploration. Air operations were under the command of Lt. Commander Richard E. Byrd, USN. In the 1930's Admiral Byrd became renowned for his own Arctic and Antarctic exploration.

Following the Arctic expedition, Reinartz did further radio research and experimentation for the Navy. In 1929 he was rewarded for his work with a commission as a Lieutenant in the Naval Reserve.

He joined RCA in the early thirties. There he conducted further research on radio propagation and short waves. He was called to active duty by the Navy in 1938 and given the task of assembling a corps of experienced radio personnel. He drew heavily upon the ham community.

Reinartz served in numerous positions during his Navy service. Among other assignments, he conducted radio and radar research. Captain Reinartz was discharged at the end of the war. He returned to RCA in 1946.

Reinartz held 28 patents. His work encompassed many areas. He developed a super-regenerator receiver, which offered improved VHF reception; his loop antenna design was used in microwave radar; his design for high efficiency tuned circuits was used in transmitters. He also developed equipment for aerological and meteorological studies. In 1958 he was named a Fellow in the Institute of Radio Engineers---now the IEEE.

In 1949 John retired from RCA. He moved west to join Eimac, as manager of their Amateur Service Department. Upon his retirement in 1960 John and his XYL, Gertrude K6MJH, moved to Aptos.

Captain John L. Reinartz, K6BJ, became a silent key on October 5, 1964 at the age of 70. He is buried at Golden Gate National Cemetery. Not only was John an important figure in the development of radio communications, he also represents the American story—youthful immigrant who pulls himself up by his bootstraps and then makes significant contributions to his adopted country.



Problems programming Baofengs?

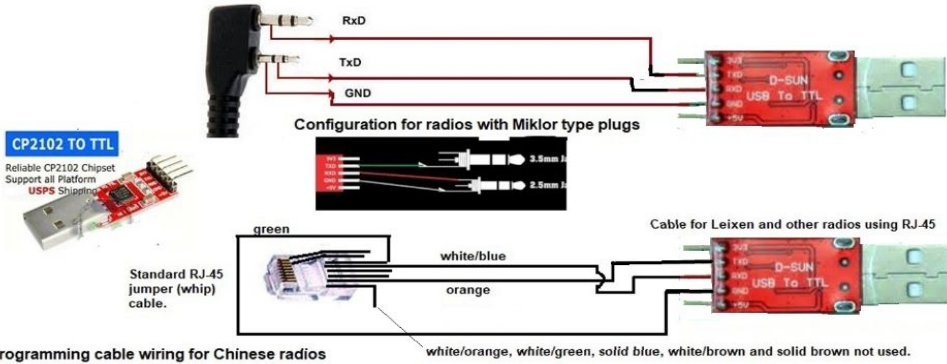
After my daughter got her Tech license at the last test session, my wife and I bought her a Baofeng handheld since the club was out of the give-away radios for new members. I figured she could get her feet wet with a radio that would at least get her on the air, and if she proves to be serious about hamming, we can get her a nice ICOM for Christmas.

When we went to set up the repeater frequencies in her radio, we had problems with the USB programming cable that is sold by Baofeng specifically for those radios. This is because the Chinese chips they use in their cables are bootleg copies of the American 2102 chips, and they do not work with Windows 8-10 USB drivers. After some research, I discovered this and ended up buying a Windows 10 compatible USB-UART on a board, and I fabricated a new program cable that did work. I had a similar problem with that little Leixen radio that I donated to the garage sale too. It came with an OEM USB to RJ-45 program cable that wasn't recognized by Windows-10, and I later learned that they used the same Chinese knock-off chip in that cable too.

Last week, the board voted to purchase another 25 Baofeng's for Allan to give to newly licensed techs who join the RARC on passing their tests. Anticipating that others will have the same problem with the OEM cables that we did, I prepared an article for the newsletter that gives examples of how to deal with this, and to make a cable that does work. The sad part is that Baofeng sells their program

cables for \$22, and you don't find out that it doesn't work until you try to use it. Their tech support recommendation is that you downgrade your computer to a Windows 7 USB driver, which can screw up any other USB devices that are working on Windows 10, so it's probably a good idea that we let the new techs know about this problem before it bites them.

John DeMajo K5HTZ



Programming cable wiring for Chinese radios

Sometimes you meet the nicest people at Hamvention!



Allan WA3J & Bob K9EID



Armand WA1UQO & Sheila K4WNW

The SWAP SHOP

Club members may list their wares in the newsletter. Send descriptive information to Armand at wa1uqo@arrl.net, or call me at 508-838-8353. The Swap Shop is presented in the newsletter as a benefit to our members. RARC takes no responsibility for items sold or traded in this newsletter. The ad will appear three times unless extended. Interested parties will contact you directly. **You must be an RARC member to place an ad.**

Wanted

Two (2) surplus type '30 (thirty) thermionic triode valves.
Matched pair preferred.
Will buy or trade.

Contact Alexander Sahhar at 804-560-3449 agsahhar@gmail.com

A donation of an older 2 meter rig (base or mobile, it doesn't matter) that doesn't do the CTCSS (PL) tones. I want to try creating my own tone generator to make these old radios work with the local repeaters. If successful, I will share the schematics and code with the group. The radio needs to be in working condition. Thank you. Please call Dan (w4erf) 540-872-5946 or email chronobot2001@gmail.com

For Sale: Kenwood TS430s, PS430 power supply and AT250 antenna tuner for sale \$950 plus shipping in US. It passed all the tests, USB, LSB, CW & AM on the Ham bands. Bought new in the box, 1984. call Bruce Haynes at brucehaynes@comcast.net

Thought For The Day!

It is far more impressive when others discover your good qualities without your help.

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Dave Robinson	KJ4LHP	Secretary		
Ken Leidner	WV0L	Treasurer		