



# THE RICHMOND HAM

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May 2022

## THE RICHMOND AMATEUR RADIO CLUB RARC Meeting Virtually Happening and in person!

Our monthly meeting on Friday May 13th, 2022, 7:00PM, at the Bon Air United Methodist Church, 1645 Buford Road, and also a virtual one. The Zoom meeting will start at 7:00pm.

Upon joining the meeting you will be muted. You may exchange greetings with members through the chat feature (keyboard).

Cell phone and tablet users please use Landscape orientation for better imaging.

**Kenneth Leidner is inviting you to a scheduled Zoom meeting.**

Topic: RARC Monthly Meeting - Virtual  
Time: May 13th, 2022 07:00 PM Eastern Time (US and Canada)

Every month on the Second Fri.

Please download and import the following iCalendar (.ics) files to your calendar system.

Monthly:

<https://us02web.zoom.us/join/j88518058584>  
[https://us02web.zoom.us/meeting/tZwoduGoqzMvEtBdpM3wG1LJ7Ro1ZcdB0qf1/ics?icsToken=98tyKuGgqzoiGtGdtRGDRpw-GYj4WfTwmFxyj7d\\_mA\\_IUDd0My\\_cYdBNY4h8FPqA](https://us02web.zoom.us/meeting/tZwoduGoqzMvEtBdpM3wG1LJ7Ro1ZcdB0qf1/ics?icsToken=98tyKuGgqzoiGtGdtRGDRpw-GYj4WfTwmFxyj7d_mA_IUDd0My_cYdBNY4h8FPqA)

Join Zoom Meeting

<https://us02web.zoom.us/j/88518058584>

Meeting ID: 885 1805 8584

One tap mobile

+13017158592,,88518058584# US (Germantown)

+13126266799,,88518058584# US (Chicago)

Dial by your location

+1 301 715 8592 US (Germantown, MD)

Meeting ID: 885 1805 8584

Find your local number: <https://us02web.zoom.us/u/kbj882gslc>

Ken Leidner , WV0L

## This Month's Program:

Rob Thomas, KC4NYK will talk about Microprocessors - Managing Peripherals - Wifi, Sensors and Displays.

Rob will follow up on his previous talk on Circuit Python to cover the various microprocessors some of which have Wifi built in and some that don't. He will go over how to get those onto your network with a minimum of headache (only one Advil!) and some of the extended options and the complexity tradeoffs involved.

He will also cover various sensors and displays and the latest simple ways they may be added to your projects, even if they weren't included in them originally. These include I2C, SPI and other data busses.

Last he will do an overview of all of the above by stepping through the Pulse Oximeter project that he and John De Majo are working on, that covers all of the above topics.

## Richmond Amateur Radio Club Meeting Minutes April 8th, 2022

The regular meeting of the Richmond Amateur Radio Club was called to order at 19:04 on April 8th, 2022 on Zoom and in-person by President John DeMajo, (K5HTZ) with a Quorum present online. Agenda was displayed on screen.

### Members Present:

Check-ins on Zoom and in-person at the Church  
**Last month's Minutes** – Approved unanimously.

### Treasurer's Report:

1) Ken Leidner, (WV0L) gave the Treasurer's Report. We had an ending balance of \$19,152.76. The Report was approved unanimously by voice vote.

2) 1 new membership application : George Ackinclose Jr (W4GNE) – Approved unanimously.

3) President John DeMajo, (K5HTZ) announced that a Special Olympics will be held on June 10th and 11th. Darren Faulkner (KG4INW) contacted John to see if we could provide help at the event. If anyone can help please contact Darren to volunteer.

## THE RICHMOND HAM May 2022

b)RATS is holding a POTA event at Powhatan State Park April 16<sup>th</sup>. RARC members are invited participate.

c)RARC Builder's Group will meet at Ken Zutavern's (K4ZUT) on April 12<sup>th</sup>.at 2pm

d)RARC has been awarded a \$1000 Educational grant from ARRL.

4) Bruce MacAlister (W4BRU) reported

a)April 13<sup>th</sup> will be last class for Carter Woodson Middle School students. Teacher thinks some of the students want to get their Licenses.

b)New Ham Workshop on April 30<sup>th</sup> at the Richmond Railroad Museum, also thinking about doing more with HF for New Hams at Field Day. Future plan is to roll all this together at FrostFest next year. Bill and Judy added that RATS needs volunteers if Frost Fest is to become a reality again.

c) RARC School: Bruce MacAlister (W4BRU) School will be finished by next week. Hoping to have a Special Testing Session for Students.

d) Remote Station: hopefully problems are taken care of. Full report in Newsletter.

### **Program:**

Tonight's presentation is by Cody (W3AMG) from Bridgecom on DMR Basics.

**Adjournment:** at 19:40.

The next general meeting: May 13th, 2022 at 19:00.

Minutes respectfully submitted by:

David F. Robinson,(KJ4LHP), Secretary

## **From The Prez**

Greetings,

I am pleased to announce that the Richmond Amateur Radio Club has received a grant from the America Radio Relay League, in the amount of \$1000, as funding for our club's educational programs. The money has already been put to work in covering expenses for our New Hams Workshop which was held on April 30th. The workshop was very successful in that it gave newly licensed hams an opportunity to build antennas, witness demonstrations of satellite tracking with easily available equipment, learn about the various services and public service organizations that are available, and most importantly, to meet seasoned operators who can serve as ELMERS. Thanks to Bruce Mac Alister, W4BRU for planning the program, and to all the hams and students who participated. More of these programs are in the planning stages, as we are working closely with the planners of FrostFest to hold another New Ham Workshop as part of the FrostFest program lineup.

Bruce and his team of volunteer instructors also closed out this year's program with the students at Woodson Middle School by holding an on-site

live demonstration of satellite tracking and HF communications with the assistance of Bill Catogni, N4WLC and Judi LeHuquet N4JDI. The efforts of our volunteer teaching corps seem to have paid off, with ten students from the 6th grade science class requesting that we conduct a summer camp to get them licensed. This will require volunteer help, so if you are interested in helping Bruce with this, please contact him. Thanks to all of these efforts, RARC has established it's place in the Richmond area as a serious educational asset. With the help of our members, we plan to continue the expansion of our outreach programs to schools, scouting and adult learning opportunities.

73

**John K5HTZ**

## **RARC VE News**

We have two different groups that provide testing.

1. One is free, but only offers testing sessions on the second Saturday of odd months except June (Field Day) replaces July. The next session will be on Saturday May 14<sup>th</sup> at 10:00am.

2. The other one cost \$15.00, but offers testing sessions on the 1st Saturday of every month.

1. RARC offers Free VE Testing Sessions on the second Saturday of odd months except June (Field Day) replaces July. Currently all testing starts at 10:00 AM and is at: Chesterfield Library Bon Air Branch 9103 Rattlesnake Rd North Chesterfield, VA 23235.

Pre-registration Required. Walk-ins Accepted. Pre-Registration required for Techs and for special needs applicants. Anyone taking the Tech exam needs a FRN from the FCC (Google obtaining a FCC FRN) and bring that info to the session. If you have questions about a session, please see our website, [www.rarclub.net](http://www.rarclub.net) or contact Allan, WA3J, at 804-399-8724, or [ve@rarclub.net](mailto:ve@rarclub.net)

2. KC4TS Cats Vet (Cats Volunteer Examination Team) offers VE Testing Sessions that cost \$15.00 on the 1st Saturday of every month. Currently all testing starts at 10:00 AM and is at: Gospel Light Church 2109 Anderson Hey Powhatan VA.

Check-in is between 10am and 12pm and we stay as long as needed to finish all the exams. Walk-in candidates are welcome! You just need a valid ID, an individual FCC FRN, and the testing fee of \$15 which goes directly to the ARRL (cash or check made payable to "ARRL VEC"). We can provide pencils and a very simple calculator or you can bring your own. See <http://kc4ts.org/> for more information.

**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 \$22.00

Lots of information about the Club and our activities is available on our website, [www.rarclub.net](http://www.rarclub.net).

**Nets**

RARC has the first and only D-STAR digital repeater in the area: 147.255 (+ 600), 443.7125 (+ 5) and 1284.0000 (-20). In addition to our Wednesday local D Star net (below), we link Module C (VHF) to REF 062A for the National Capital Region D Star Net on Wednesday nights at 9pm. On Tuesday nights at 9pm, we link Module C (VHF) to REF 054C for the North Carolina D Star Net.

The RARC D Star Net meets on Wednesday nights at 8:00pm and is accessible on our three D Star modules, all of which will be linked together via REF 062D. So if you are in RF range of the repeater, you can join the net on any of the three RF modules and be heard by everyone.

If you participate in the net via DVAP, DV Dongle or a Hotspot (such as Pi Star), you should link your device to REF 062D rather than to any of our modules which will allow you to be heard by everyone.

Any questions, contact Win - W4WIN at [wingrant@gmail.com](mailto:wingrant@gmail.com)

<b>Sunday</b>	7:00 pm	50.135	USB
	7:30 pm	52.525	FM
<b>Wednesday</b>	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!

**Last radio class for Woodson Middle School, Hopewell.**

On April 13th Bill Catogni, N4WLC, Judi LeHuquet, N4JDI, and I taught the last radio class for Carter G Woodson Middle School in Hopewell. The ARISS-NASA advisors suggest having a class after the the space station contact. This class was about using amateur radio satellites to communicate. Bill had the foresight to set up a QRP HF station to use when there wasn't a convenient satellite pass during a class. While Judi and Bill were setting up for a satellite pass outside, I covered the basics in the classroom. Then the teacher and I marched the students outside for a demonstration. We heard a few VHF-UHF satellite contacts and a few HF contacts.

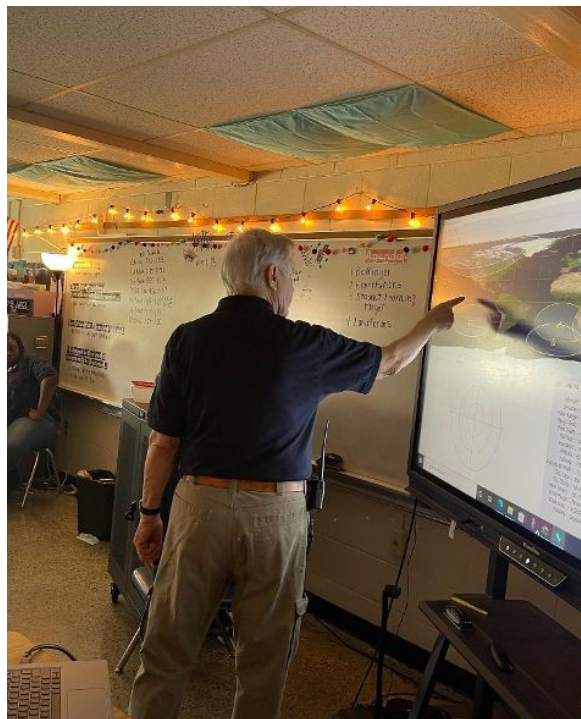
It is clear the kids are comfortable talking on a radio. Alex Perry, the teacher, took a picture of one of the students walking beside me heading outside with the student talking to Bill on the radio hooked on my belt. I like that these kids are comfortable around radios. Maybe next spring we can have a "radio camp" during an intersession and get a few of them amateur licenses.

73, Bruce MacAlister, W4BRU



Bill, N4WLC explains satellite contact and equipment





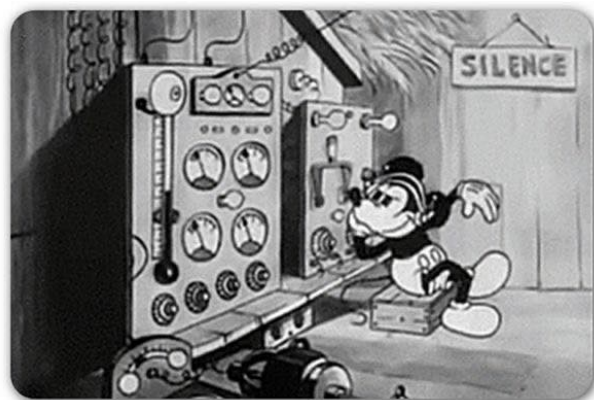
Bruce, W4BRU shows incoming ham radio satellites and the ISS on Gpredict tracking map



Comfortable with talking on a radio, a student talks for N4WLC using the radio on the hip of W4BRU



A very interested student leans into the antenna aiming by Bill, N4WLC



## New Hams Workshop – the first of a series of three

The students entered the freight area of the old train station and found John DeMajo, K5HTZ, sitting at the first table with lengths of copper pipe prepared to show how to build and tune a 2-meter J-Pole. The students learned about SWR and antenna analyzers. The next pair of tables were for building and testing hang-up ground plane VHF antennas. Soldering, terminating transmission lines, and roll-up J-Poles made of 300ohm TV cable were built there by the students. Mike Owens, K4RKO, Rob Thomas, KC4NYK, and Steve Boles, W4SB, handled that table. At the next table was George Starke, WB4VWR, with ARRL handouts, handouts he made on clubs and nets in the RVA, and a lecture on public service, emergency communications, Skywarn, and ARES. They learned the secret codes of "listening" versus "CQ." At the fourth table was Ken Zutavern, K4ZUT, with an SDR receiver, a loop, and a show-and-tell on spectrum displays. Outside on the loading ramp was Bill Catogni, N4WLC, with a satellite rig and an HF rig with loop demonstrating satellite communications (no convenient flyovers) and HF jargon (of which there was plenty).

Not formally on list of topics – but a big part of the session – was "seasoned" hams welcoming new hams into our community. We did what ham radio mentors-elders did for new hams in the past. We've send a survey to the students to see what they thought of it.

This is the first of three workshops we plan through February 2023. We were thinking of up to 40 students would attend. We got 10. It was one of the first gorgeous spring days after a 2 year pandemic and there were hundreds of events planned in the area. Duh; I should have expected that. The nice part of 10 and not 40 students was we saw that we need to figure out how to scale it up for a larger number when we do our third workshop at Frostfest in 2023. The nice thing about Frostfest is that it's in February when there is far less competition from community events. The second workshop is planned as "New Upgrades Workshop" in league with the RATS-led Field Day in June. The emphasis there is HF antennas, logging, and making HF contacts on very crowded airwaves. It's making new upgrades to General and Extra more comfortable with crowded, noisy, competitive HF.

At the third workshop at Frostfest our plan is to incorporate topics for both new hams and new upgrades. A grant from the ARRL Foundation is paying for this series of educational workshops. My thanks to the seven instructor-mentors who led this effort.

Bruce MacAlister, W4BRU



K5HTZ and the J-Pole table



K4RKO in foreground terminating a transmission line



## The SWAP SHOP

Club members may list their wares in the newsletter. Send descriptive information to Armand at [wa1ugo@arrl.net](mailto:wa1ugo@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.**

**Estate Sale!** I have a long list of Ham equipment I am going to sell either locally, on QRZ or eBay. Hams can email me at [n4nqy@arrl.net](mailto:n4nqy@arrl.net) for a spreadsheet of what's for sale. Included is HF equipment, VHF and UHF mobile radios and handheld radios (both analog and DMR) and various accessories. JB Edmonds, N4NQY.

**Test equipment, misc. Electronics:** An acquaintance of Scott, AE4TC is trying to clean up his dad's collection of avionics, electronics, test equipment, racks, transceivers, receivers, surplus etc. This is Mr Sternheimer's collection, he owned the A&N stores here in Richmond. There's several rooms full of equipment. Some new stuff still in the box. There's ham equipment, meters, cable, and so on. He is looking to get rid of this stuff and looking for people who can appreciate it. Please contact him directly, his name is Zach. [zastarri@comcast.net](mailto:zastarri@comcast.net)

### For Sale:

1. Ameritron AL-80A linear amplifier. Very good condition. Bought 3 years ago (used) and I never used it. Made full power when I got it. \$500. IF interested, call Dennis, KG4UT, cell (804) 709-5717.
2. MFJ Kilowatt dummy load. Bought new, never used. \$75. If interested, call Dennis, KG4UPT, cell (804) 709-5717.
3. Boonton Model 250-A Impedance Bridge. Very Good condition. I replaced filter caps. This reads the parallel combination of resistance and reactance over the range of 500 KHz to 250 MHz. I bought this for a project I was working on, and it did fine, but no longer have a need for it. \$75. If interested, call Dennis, KG4UPT, cell (804) 709-5717.

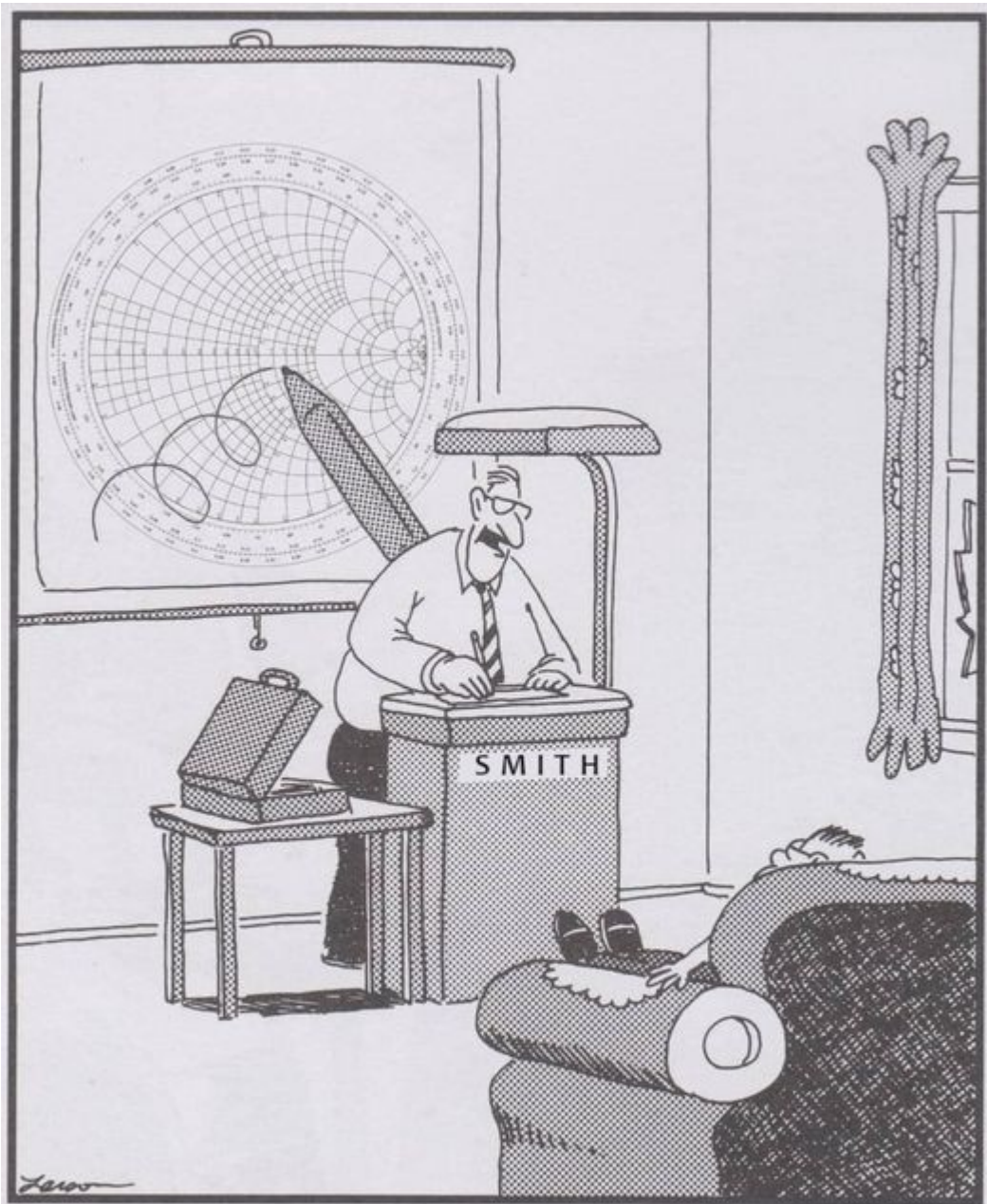
### ANTENNA ROTATOR FOR SALE:

THIS IS A YAESU G-800SA. IT IS BRAND NEW NEVER REMOVED FROM THE BOX. NEVER HOOKED UP OR USED. SOLD AS IS. COMES WITH A GC-038 BRACKET AND 125 FEET OF NEW 8-CONDUCTOR ROTOR CABLE. PRICE: \$ 550.00. Contact JERRY WILLIAMS, KJ4IT. 804-730-0221.

## Thought For The Day

***If you want your children to listen, try talking softly to someone else.***

John DeMajo	K5HTZ	President	(504) 858-7689	<a href="mailto:jdemajo@demajo.net">jdemajo@demajo.net</a>
Allan Johnson	WA3J	Vice President	(804) 318-6951	<a href="mailto:wa3j@arrl.net">wa3j@arrl.net</a>
Dave Robinson	KJ4LHP	Secretary		
Ken Leidner	WV0L	Treasurer		



Eventually, Billy came to dread his father's lectures over all other forms of punishment.