



# THE RICHMOND HAM

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March 2022

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

Our monthly meeting on Friday March 11th, 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: March 11th, 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/meeting/tZwoduGoqzMvEtBdpM3wG1LJ7Ro1ZcdB0qf1/ics?icsToken=98tyKuGgqzoiGtGdtRGDRpw-GYj4WfTwmFxFy7d\\_mA\\_IUDd0My\\_cYdBNY4h8FPqA](https://us02web.zoom.us/meeting/tZwoduGoqzMvEtBdpM3wG1LJ7Ro1ZcdB0qf1/ics?icsToken=98tyKuGgqzoiGtGdtRGDRpw-GYj4WfTwmFxFy7d_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:

we are expecting a presentation from a vendor who would speak on a program regarding DMR radios and repeaters.

## Richmond Amateur Radio Club Meeting Minutes

### February 11th, 2022

The regular meeting of the Richmond Amateur Radio Club was called to order at 19:15 on February 11th, 2022 on Zoom by Joey Hairfield, WJ3H with a Quorum present online.

**Members Present:** Check-ins on Zoom.

**Last month's Minutes** – Motion to approve and seconded.

### Treasurer's Report

1) Ken Leidner, (WV0L) gave the Treasurer's Report. We had an ending balance of \$18,848.44 The Report was approved unanimously by voice vote.

2) No new members this month

**Bruce MacAlister**, (W4BRU) reported that the Middle School classes are continuing well and that the Space Station contact will occur sometime on the week of the 28<sup>th</sup>.

Sign-ups for the next set of classes,

Tech – 8 Zoom only

General – 4

Extra – 3

Antenna Modeling – 5

Remote Station operation – 2

D-Star – 3

**Old Business-** none.

**New Business** – Ken Zutavern, announced the next Builders Group meeting would be on the 15<sup>th</sup>

**Show & Tell** – Rick Waller, KA4OHM demonstrated his self contained antenna tracker. John De Majo, K5HTZ displayed his SX-25. Jon Bennett, NQ4A showed his beautiful Collins 30L1 amp.

Bruce Mac Alister, W4BRU gave us a peek at his new, tiny, spectrum analyzer.

Rob Thomas, KC4NYK described joining the Long Island CW club.

The business meeting was adjourned at 19:39 followed by a presentation by Mike Friedman, W4MAF on POTA activation.

**Meeting closed** at 20:03

The next general meeting: March 11th, in person at the church and via ZOOM.

Respectfully submitted by Armand Hamel, (WA1UQO) .

## From The Prez

Well the year has started off on a good note for the RARC. We just witnessed an extraordinarily successful project, headed up by Bruce McAlister, with the assistance of several members who donated their time and efforts, allowing the sixth graders at Carter Woodson Middle School to talk directly with an astronaut aboard the International Space Station. As a result of their work, RARC received valuable publicity in the public media, which strengthens our club's outreach program, and hopefully will bring in new members.

We now turn our attention to upcoming projects. This year, we will be actively partnering with RATS for Field Day. We have also announced that the club will hold an all-day "boot camp" for new hams on April 30th at the Richmond Railroad Museum. We have applied for grant money from the ARRL educational grants program that was recently announced, and we hope to receive a grant that will cover the club's expenses on the camp and possibly other outreach projects.

Finally, I would like to let members know that we are not sitting idly by on this issue of the Virginia Balloon law. We have members who will be actively lobbying to have a provision placed into the bill that is now prohibiting us from launching any type of balloon in Virginia. Both the governor and delegate Mike Cherry of Chesterfield have been asked to help us get an exemption placed into law that would again allow hams in Virginia to launch radio weather balloons.

Now that Covid restrictions are finally being lifted, I am looking forward to a productive and exciting 2022 for RARC.

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 March 12<sup>th</sup>. **The March session will take place at 12:00 Noon.**

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 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.

<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!

### Amateur Radio ban – Ukraine

Ukraine has declared a state of emergency in all of Ukraine except for eastern Donetsk and Luhansk oblasts starting on Feb. 24.

The parliament approved the decree introduced by President Volodymyr Zelensky on Feb. 23, as the threat of Russia's all-out invasion of Ukraine continues to grow.

Donetsk and Luhansk oblasts already have a special legal status because of Russia's ongoing occupation since 2014.

Restrictions introduced by the state of emergency are due to last 30 days and will vary depending on the region.

The state of emergency allows the authorities to temporarily limit the public's constitutional rights.

The decree green-lights the following measures:

- increased public order protection and security;
- checks of identification documents of civilians and frisking if necessary;
- ban on protests;
- temporary or permanent evacuation of people from dangerous areas and providing them with accomodation;
- ban on relocation of conscripts and reservists without notice;
- ban on producing and spreading information that may "destabilize the situation";
- **ban on amateur radio transmitting devices.**
- Other measures that may be implemented "if necessary" include:
  - a curfew;
  - a special regime of entry and exit;
  - ban on mass events;
  - "special rules" for spreading information online.

Source: <https://www.dx-world.net/amateur-radio-ban-ukraine/>





### Next QSO Today Virtual Ham Expo set for Mid-March

What's become a regular March event, the next [QSO Today Virtual Ham Expo](#) will be held live from March 12 – 13, and then on demand for 30 days afterward. More than 60 speakers will deliver presentations on their subject areas.

"There's content for everyone, whether a newly licensed ham looking for next steps...or [an experienced] ham looking for new projects," QSO Today Virtual Ham Expo organizers promise. Presentations will include "Core HF Communication Concepts: Fundamentals of Shortwave Propagation;" "Deep Dive of An FPGA DVB-S2 Implementation;" "Fun With The NanoVNA," and "Helically Wound Vertical for 160 Meters." The complete list of presentations is available from the [Virtual Ham Expo home page](#).

Virtual visitors may watch as many presentations as they want and return any time within 30 days to view other speakers and presentations, as well as explore exhibitor offerings. This Virtual Ham Expo will debut new technology that organizers say will "further improve the live video interaction experience with exhibitors and fellow operators."

ARRL The national association for Amateur Radio®, is a QSO Today Virtual Ham Expo Partner. Early bird tickets go on sale on February 1. Tickets are \$10 through March 6.

### RARC + RATS = QSO Party!

RARC and RATS will be holding a joint get-together on Saturday, March 19th from 12 noon until 5 pm at BonAir Methodist Church, on Buford Road, as part of the Virginia QSO Party. It will be an opportunity for folks to bring their portable equipment and set up antennas in the parking lot. The club's regular meeting space will be available for station setups and operating, as well as eyeball QSOs and refreshments. "Come one come all" for a chance to get together for some much needed in-person socializing and fun!!

### Space station contact with RARC assistance completed!

The call was from Alexandra Perry, sixth grade science teacher of a Hopewell school, asking whether the Richmond Amateur Radio Club would help with the school's desire for a student contact with an astronaut on the ISS (International Space Station). On the application for an ISS contact was the requirement that FCC-licensed amateur radio operators be a part of her team. Our RARC officers approved and I agreed to be the club's project manager. So began a year of involvement that culminated with the "space chat" (NASA terminology) with astronaut Tom Marshburn, KE5HOC, on February 28 at 1443 UTC (9:43am EST) at Carter G Woodson Middle School in Hopewell, VA.

You can view it on the ARISS YouTube channel at <https://www.youtube.com/watch?v=KmFtTluF3aQ>.

You may also have seen Sarah Bloom's interview with the students on Richmond's NBC channel 12. The club members who signed up for one part or another were John DeMajo, K5HTZ, Tom Flippin, KD4CMK, Ken Leidner, WV0L, Michael Owens, K4RKO, Rob Thomas, KC4NYK, Lauren Ware, WD4FMG, John Watkins-Pitchford, KX4QC, Ken Zutavern, K4ZUT, and me, W4BRU. And there was the Radio Builders Group that assembled the Morse code light senders that KC4NYK had designed and laser-cut.

We started with Tom, KD4CMK, and John, KX4QC, doing a roof-walk to see if the sight lines to the horizon were clear enough to put up a tracking antenna. As it turned out, delays from the pandemic made us decide to use a phone-patch from a well-experienced ham ground station and a telephone link for the contact. One day we want to be ready to do a "direct" ISS contact for a local school.

Then there's the paperwork; lots of it. Most fell to the school but we had our portion to do. Fortunately ARISS (Amateur Radio on the International Space Station) assigned Kathy Lamont as educational



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mentor and Bob Koepke, AA6TB, as ham radio mentor, both with the experience to guide us. ARISS and NASA had recommended topics for the students to study, things like orbital mechanics and radio communications. From those we picked four for us hams to teach and for the rest the teacher used NASA material to teach.

For the first class we used “paper cups and string” to communicate at a distance without shouting. The teacher provided some slides on air compression and how the paper cup converted those to vibrations on the string, in effect modulation the string. The students learned attenuation by putting fingers on the string. They tied two strings together and saw the complications of a four way conversation, and we made them close their eyes so they had to say “over” to know when to move their cup from their mouth to their ear.

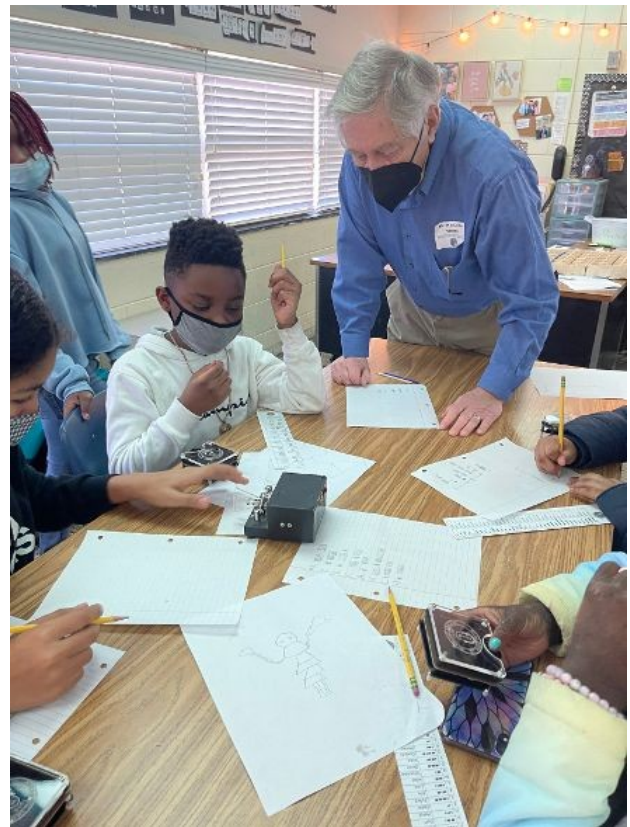
For the second class we used the club’s stash of 25 HTs to give them experience with push-to-talk, radio discipline, and to be precise on their location if help was to be summoned. This was a chance to cover all the two-way radios we use every day from their cell phones to the WiFi connections of their Chromebooks. They had fun but there was much mayhem so we will find a better way to do this one in the future. The third was probably the most successful of our classes, dealing with Morse code. We knew from our time at the RVA MakerFests that kids of this age are fascinated with codes and ciphers.

KC4NYK designed 25 code practice units and cut the parts on a CNC router and a laser cutter. The Radio Builders Group gathered in the K4ZUT garage to assemble them. It was clear that classic Morse code practice units would be too noisy for the classroom so Rob designed them with LEDs. For demonstration we had lots of loaned senders and receivers from railroad units to sending at sea with light. We got some good history, geography, and math done playing the reconstructed code traffic from the sinking Titanic ([https://www.youtube.com/watch?v=FxRN2nP\\_9dA](https://www.youtube.com/watch?v=FxRN2nP_9dA)).

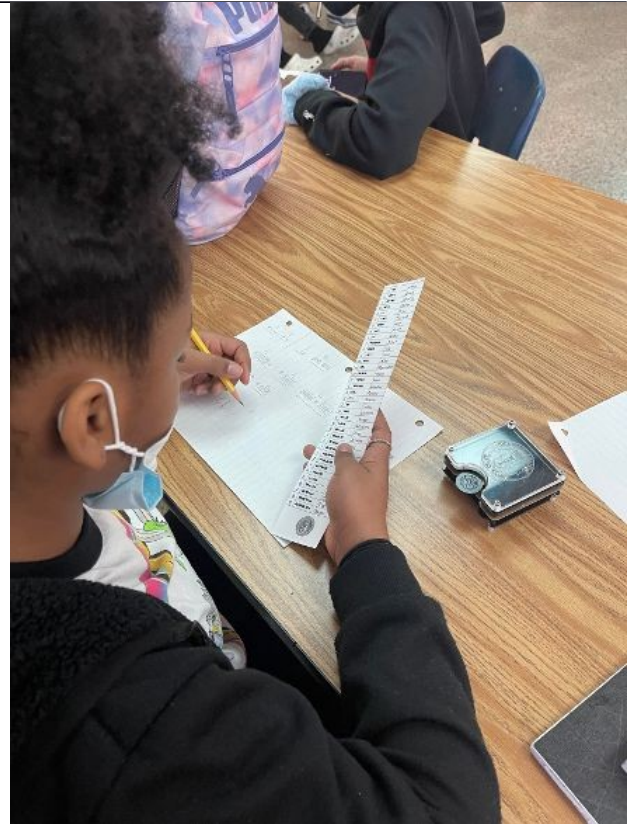
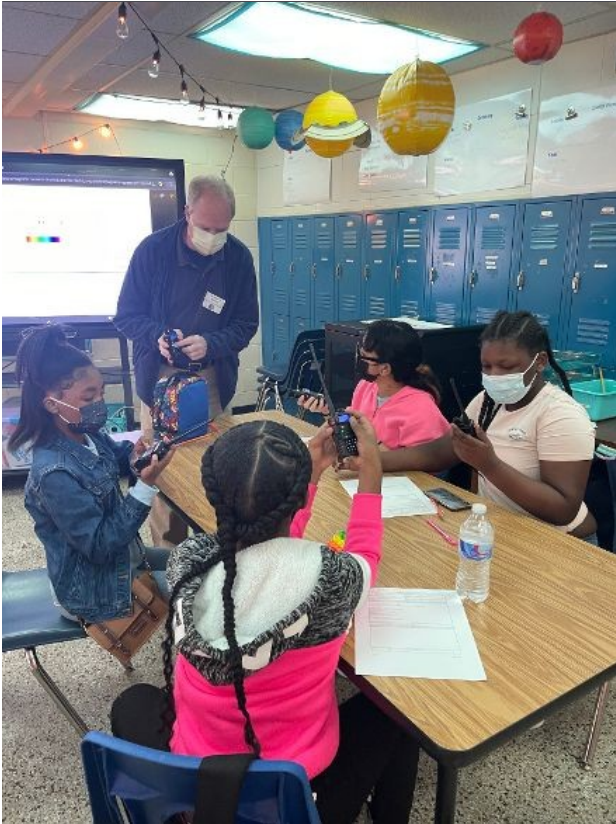
Class four awaits warmer weather for an outdoor class. This is “Satellite tracking & communications.” We want them to see an antennas tracking satellites and, with luck, have a QSO via satellite.

With the fourth class we will conclude this partnership with Carter G Woodson Middle School. I hope we have future opportunities with other schools and with Woodson again. It’s a great way for us to show we meet the expectations of our license through public service. It also exposes lots of people who either didn’t know anything about Ham radio or thought it was dead.

Bruce MacAlister, W4BRU.



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### The SWAP SHOP

Club members may list their wares in the newsletter. Send descriptive information to Armand at [wa1uqo@arrl.net](mailto: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.***

**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:** Yaesu 857 with LDG YT-100 Autotuner. \$700.00 Contact David Robinson at (804) 833-3351 or [thedarbinian@comcast.net](mailto:thedarbinian@comcast.net).



## Thought For The Day

***A smooth sea never made a skilled sailor.***

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		

