



THE RICHMOND HAM

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April 2014

The RICHMOND AMATEUR RADIO CLUB will meet Friday, April 11th 2014, 7:00 PM, at the Bon Air United Methodist Church, 1645 Buford Road.

PROGRAM: Fall Protection and Tower Safety by Kristafer Proctor, KK4SIJ.

Coming Events:

April Meeting, April 11th, 7:00 PM.

RARC's annual yard sale on May 10th.

VE Testing Session, May 10th, 2014 9:am at the Bon Air United Methodist Church.

The Central Virginia 6 Meter SSB Net
TailgateFest May 17th at the Scottish Rite Temple.

Public Service:

Ashland Railroad Run, April 26th Contact Jerry Williams kj4it.jw@gmail.com

Powhatan Historic Bike Tour, April 27th Contact Mike Hackett mhack61@yahoo.com

March For Babies, May 4th Contact Roy Schultz ki4mcx@arrl.net

Virginia Special Olympics June 6th and 7th. Sign up at http://k4mtk.com/?page_id=2

Club Members!

If you are not receiving your copy of the Club's monthly newsletter, please contact Richard, WA4FEH, RARC's Treasurer, at wa4feh@gmail.com or phone 743-3899.

From the Prez

Well, looks like we finally on the way to spring and summer. Time for fixing winters antenna damages and planning new antenna installs. Looking forward to hamfest season with Manassas, Berryville, Charlotte, and especially Dayton in a few weeks.

Of course we can't forget our families and vacations which give us a chance to do some individual dxpeditioning while on

vacation. Our families are our greatest asset and they give us the time to play with our radio toys.

We also must remember those who need our help with donations of food, money, etc. and our elderly who need help with doctor's visits, fixing something for them, or ????.

Then of course we have our ham radio EMCOMM. This is where we use our hobby for the good of all people. This does take some training, because there are rules and procedures. It also takes away from family time, but it is a donation to help. One of our biggest problems is, we are all very busy with jobs and family, but if you volunteer to help, be it with church, elderly, or EMCOMM, please understand this becomes your obligation. This is very important, because people count on you. PLEASE, if you agree to volunteer to do something-----do it.

Dr Joe Palsa

k3WRY

March 2014 RARC Meeting Minutes

Meeting Date: Mar. 14, 2014

Meeting Time: 7:00 PM

(Due to weather conditions there was no Feb meeting)

Presiding Officers: Dr. Joe Palsa, K3WRY, President; David Robinson, KJ4LHP, Vice President; Richard Arnold, WA4FEH, Treasurer; and Maylon Pearman, KG4RPQ, Secretary

Dr. Palsa opened the meeting, welcomed guests Carolyn Worssam, KK4VIF / Richard Worssam, no call / Beverly Cummings, Daniel Cummings mother / L. Williams, KK4SRF / Kris Proctor, KK4SIJ. Officers and board members were introduced. Then everyone was asked to introduced themselves.

Minutes were approved for Jan 2014 meeting.

Bruce MacAlister, W4BRU reported on the RARC school. 20 students signed up for tech class, 6 students signed up for general, 3 students signed up for extra class and 6 students signed up for the morse code class. There are now 7 instructors.

Richard Arnold, WA4FEH gave the February-March treasurer's report. New applications were received and voted on. They were John DeMajo, K5HTZ; Donald Manis, KB1HND; Lisa Kieffer, KD0RXH; Julian Bailey, KV4VP; Carl Cash, KF4UBE; and Reid Barden, KK4NYK. Welcome to the club.

Jim Bates, K8OI reported on the D-star repeater activity and usage. The D-star net meets on Wed. night at 8:00 PM.

Grayle Hunley, KF4USV reported he is still working on transportation for members needing rides to meetings.

Jim Bates, K8OI reported on the Metropolitan Repeater Association is swapping out the repeater on the 145.43 machine to make it a dual mode with P25 (currently it is FM only). Any questions call Jim.

David Thomas, WD3O announced that the VE exams are scheduled on the second Saturday of the month at 9:00 am on the odd months only. The RATS club handles the even months.

Rob Thomas, KC4NYK reported on a new group call Hack RVA, which is located near Curly Neck Dairy in Scotts Addition. They have tools and can assist in building projects. Saturdays are open hack days and they will help you build your project.

Pete Fundinger, AA4PF reported on robotics teams competing at VCU on following Saturday. Pete will be moving from the Richmond area the 1st of July.

Grayle Hunley, KF4USV announced that he will be bringing his chili to the April meeting.

Joe asked for members to volunteer to bring refreshments. If members can pick one month the club will reimburse for expenses.

Joe reported on the legislator changes to law on amateur radio vehicle license plate. The law will be changed thanks to McNeer, K4YEF; so that ham radios do not have to be permanently

mounted in the vehicle. The fee will remain at 1 dollar.

Joe asked if anyone has any radio equipment they not using and want to sell, give away or loan to please list it in the newsletter as there are many new hams getting licenses or upgrades and are in need of radios equipment.

The meeting was adjourned and Bruce MacAlister, W4BRU gave a presentation on the working of GPS navigation.

RARC VE News

The May Testing session will be on the 10th at the Bon Air United Methodist Church at 9:00am.

If you have questions about a session, please see our website, www.rarclub.net/ or contact Allan, WA3J, at 804-399-8724, or wa3j@arrl.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.

FCC EXAMS EVERY MONTH on the SECOND SATURDAY. For January and all odd-numbered months: Bon Air United Methodist Church, 9 AM. Call coordinator, Allan Johnson, WA3J, 399-8724, or visit <http://www.rarclub.net/>.

For February and all even-numbered months, FCC test sessions are provided by the RAVE group. Coordinator, Pat Wilson, W4PW 804-201-1898.

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 007D rather than to any of our modules. Since the W4FJ stack will all be linked to Ref 007D, anyone linked to that reflector will be connected to the net.

The Club sponsors several local radio nets each week. Join in for the informative discussions and fun.

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 Repeater
	8:15 PM	145.730	Packet

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
Age 12 and under	\$5.00
Age 13 to 18	\$10.00
Regular Membership	\$15.00

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

2014 Refreshment Schedule

The refreshment schedule for 2014 is wide open! Consider signing up for your favorite month. The entire year can be covered by only ten volunteers. Let's see some new contributors!!

Help A Club Member

Grayle Hunley, KF4USV, is looking for volunteers to help give rides for older members to club meetings. He has members listed by zip codes to find those nearest to you. Contact Grayle if you can help. 730-0455

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.

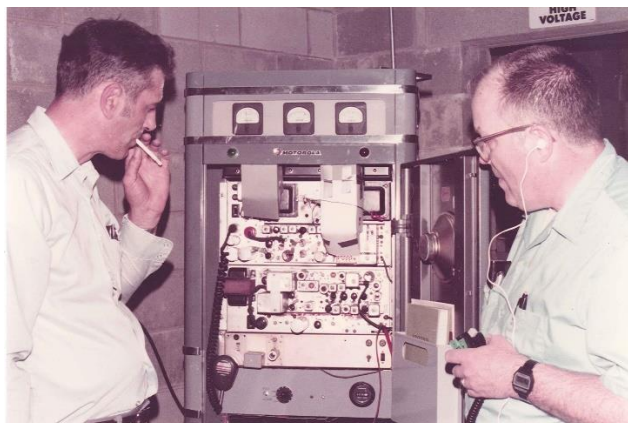
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April Meeting Topic

How many of you are aware that falling from a tower, pole, or tree can be fatal even if you have a safety harness and it works as intended? You will learn how best to survive surviving a fall tonight. Kristofer Proctor, KK4SIJ, has been interested in radio for 16 of his 28 years. He started with CB at the young age of 12. After getting "bit" by the Amateur Radio bug at Field Day 2013, he progressed rapidly to Extra in March. He will be talking on fall protection and tower safety. Kris brings a different perspective to the subject, having experience with elevated work as a welder/fabricator. He will have current style harness and lanyard to explain and demonstrate (just not from very high!)

MRA Repeater Update 2014-03-28

The Metropolitan Repeater Association (MRA) is chartered as a non-profit corporation by the State Corporation Commission under Virginia law. The MRA's mission is to own, operate, and maintain repeaters supporting the amateur radio community. The MRA was established in 1981 and deployed its' first VHF repeater, W4SQT (now known as KG4MRA) on March 6, 1982. The W4SQT repeater has been in continuous operation and is located at the WRLH tower in Midlothian, Virginia.



Rod Kieper (W4SQT) on the left - Rod was the MRA Trustee for 32 years - from 1982 until 2014!

The MRA's VHF repeater has evolved over the years. The latest repeater was a General Electric Mastr II station controlled by a CAT 1000B controller. The Mastr II has served the MRA well!

As technology has evolved, so has the amateur radio community. There are now many types of digital technology commonly available to the average ham: P25, DMR, NXDN, System Fusion, and D-Star for example.

The MRA decided at a 2013 board meeting to explore options to expand, enhance, and benefit the amateur radio community. There were a few constraints mentioned and diligently followed:

- Do not duplicate existing functionality in the coverage area - meaning we don't need another 2m/70cm FM repeater!

- Try to be thrifty!

- Minimize tower climbing if at all possible

- Add functionality that does not exist in the coverage area

- Consider the cost impact upon an average amateur radio operator

A small team of MRA members began researching the available modes, bands, and cost impacts. The MRA team was presented with an option which met all of the constraints of the MRA board - a Motorola Quantar VHF, multi-mode (P25/FM) repeater. The Quantar would allow the existing infrastructure to remain intact - no tower climbs, no re-cabling, duplexer re-use and added an additional capability (P25) which did not exist within the coverage area!

While one may argue that new P25 equipment is not cheap (and that is a fair argument!), used, reasonably priced

equipment can be commonly found on eBay. A Motorola XTS-3000, which is P25 and FM capable, can be purchased for approximately \$250. A used XTS-3000 is half the cost of a D-Star ID-51 (\$515) and 60% of the cost of a Yeasu FT-1DRB (\$400). Again, while not "cheap", certainly in the range of reasonable for digital gear.

Additionally, there is a lot of interesting P25 activity in the Software Defined Radio (SDR) world. Some enterprising amateurs have developed a software suite which can decode P25 digital packets for under \$100. Check <http://op25.osmocom.org/trac/wiki> for more information. Again - VERY experimental, but isn't experimentation part of the amateur radio community spirit?

The MRA board agreed in March, 2014 to replace the existing GE Mastr II with the Motorola Quantar. The Quantar was acquired, configured, and deployed on March 28, 2014. There was an initial week of "FM only" testing; used to ensure the coverage would be equal or better than the prior repeater. P25 mode is permitted on April 4, 2014. Multi mode P25/FM was now fully available to the amateur radio community within the MRA repeater's coverage area!



The repeater installation crew (from Left to Right): Dave Meier (N4MW), Jim Bates (K8OI), Fred Towers (WB4KXS), Jay Lovelady (KD4BPZ) - not shown - Photographer - Jamie Stapleton (KD4RJN) The Quantar is in front!

If you are ever driving up/down I-95 through Richmond, VA - give a CQ on 145.430-pl 74.4 FM or P25!

<http://www.mrarichmond.org>

73 de K8OI

Jim Bates

MRA - President

2m SSB Interest in the Richmond, VA area

There are a few hams in the Richmond area who have expressed interest in using their 2m SSB gear on a more frequent basis. If you have an interest in participating or have ideas supporting this operation, please let me know.

Thank you!

Jim Bates, KJ4WLH

Mail to: jl Bates4@gmail.com (804) 592-1068

RARC's annual yard sale on May 10th. Bring your donations with you to the club meeting on Friday, May 9th.

The RARC's annual yard sale will be held on Saturday, May 10th. Proceeds from the yard sale make up a significant portion of the club's annual budget and help fund club activities such as the repeater, meeting refreshments, the newsletter, and the annual dinner.

Please start looking around your house for items that you would like to donate. Suggestions include household items, children's toys, books, pet items, electronic items, sporting goods, decorations, crafts, tools, plants, exercise equipment, DVD/CDs, jewelry, watches, and furniture. Ham radio equipment donations also are very much appreciated. (There will be no silent auction this year, but all donated gear will be available for purchase by licensed hams.) Remember that your donations benefit both you and your fellow club members.

Should you have any questions or need more information, please call Marshall Ervine, N4XBP, at (804) 320-8629.

W4FJ Repeater Code of Conduct and Operational Guidelines 2014-03-21

Purpose:

The Richmond Amateur Radio Club's (RARC) mission promotes the enjoyment and advancement of amateur radio and emergency communication. Consistent with that mission, the RARC purchased and operates the W4FJ D-Star repeaters.

General Rules:

- The use of the W4FJ repeaters is a privilege.
- Repeater usage is at the sole discretion of the repeater trustee, under the direction of the RARC Officers and Board of Directors.
- Acceptable traffic on the repeater must be in line with the RARC mission.

- Good manners and proper repeater protocol are always required. If you are not sure what constitutes good repeater operation, contact any RARC officer or the W4FJ repeater trustee.
- Traffic prohibited by the FCC is always unacceptable and illegal.
- Traffic of a political, religious, sexual or inflammatory nature is not permitted.
- Purposeful jamming or interfering with repeater operations is illegal. RARC takes this seriously and will report violations as necessary.
- Repeated violations or illegal operations will result in a report to the authorities.

W4FJ Operational Configuration

- 2 meter (VHF)
 - Frequency: 147.255 +600 Khz
 - Port: C
 - RPT1: W4FJ C (3 spaces)
- 70 centimeter (UHF)
 - Frequency: 443.7125 +5 Mhz
 - Port: B
 - RPT1: W4FJ B (3 spaces)
- 23 centimeter
 - Frequency: 1280.000 -20.00 Mhz
 - Port: A
 - RPT1: W4FJ A (3 spaces)

D-Star Operational Guidelines:

- Please wait for the Repeater and Gateway ID following each transmission.
 - Please wait 1 second after receiving a transmission before responding (keying up).
 - Voice identification is optional but highly encouraged; the D-Star digital protocol transmits your callsign on every transmission implicitly meeting the FCC identification rule.
 - The preferred methods of "Calling CQ" are:
 - Local Repeater Usage
 - (Callsign) (Status: [Mobile|Portable|Monitoring|etc]) on W4FJ ([2 meters|70 centimeters|23 centimeters])
 - Example: "K8OI Mobile on W4FJ 70 centimeters"
 - Crossband Repeater Usage
- NOTE: Please stop crossbanding once the QSO is complete.
- (Callsign) (Status: [Mobile|Portable|Monitoring|etc]) on W4FJ ([2

meters|70 centimeters|23 centimeters])
crossband on W4FJ ([2

meters|70 centimeters|23 centimeters])

■ Example: "K8OI Mobile on W4FJ 70 centimeters crossband on 23 centimeters"

- "Busy Lockout" is encouraged, but not required.
- All D-Star registered operators are welcome to link or unlink the repeaters

● D-Star Linking method:

○ NOTE: The 2 meter (VHF), Port C module is typically linked to REF025B during the work week from 07:00 - 19:00. Feel free to unlink as you wish.

○ Check the status of the repeater

■ URCALL

● Set the field to (Your Callsign) with an "I" (India) in the 8th position.

● Example: "K8OI I" (3 spaces after the I)

■ RPT2

● Set the RPT2 setting to "W4FJ G" (3 spaces after the J)

● This setting tells the D-Star Gateway to "read" the URCALL

setting

■ Key up the repeater. This will trigger an announcement with the current state of the link.

○ Ensure nobody else is using the link or the repeater before linking/unlinking.

○ Unlink or Link the repeater as you desire.

○ When you are finished using the link please return it to the previous state

● Transceiver Configuration for RF traffic:

○ MYCALL - You are REQUIRED to use your callsign. This is the callsign used for station identification and is required by the FCC for proper identification.

○ RPT1 - You must use the appropriate port configuration. For example, if you are using the "Port B" (UHF) module, RPT1 must contain "W4FJ B" (3 spaces after the J)

○ RPT2 - Must contain "W4FJ G" (3 spaces after the J)

● DVAP, Dongle, HotSpot, etc. connections are permitted.

○ MYCALL - You are REQUIRED to use your callsign. This is the callsign used for station identification and is required by the FCC for proper identification.

● GPS Auto Beaconsing is not permitted.

● GPS data sent during a normal, manual transmission is permitted.

The SWAP SHOP

Club members may list their wares in the newsletter. Send descriptive information to Armand at wa1ugo@arri.net, or call me at 804-454-0564. 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.**

Free for dismantling and disposing - 120 ft. guyed tower. Brand unknown. Located in Woodbridge, VA. It's three legged. Condition: used a long time. Included is a Yaesu transceiver believed to be one of the better models. Contact AA4PF(@)verizon.net (804-639-5573) for details.

Thought For The Day

There are those who make things happen,
those who watch things happen,
and those who wonder what happened.

73 de:

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