



THE RICHMOND HAM

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January 2015

The RICHMOND AMATEUR RADIO CLUB will meet Friday, January 9th 2015, 7:00 PM, at the Bon Air United Methodist Church, 1645 Buford Road.

PROGRAM: SDR Explained and Demonstrated. SDR – Software Defined Radio – is everywhere. It's the radio in your cell phone and your WiFi connection. It's also in most new HF ham radio transceivers. Unlike much of ham radio, you can actually build SDR radios for fun and make contacts at a reasonable cost. You can also add SDR functions to your older ham gear. This program is a brief introduction to SDR by Bruce MacAlister, W4BRU, followed by demonstrations of ham-built SDR equipment by Rob Thomas, KC4NYK. The gear will be available for viewing with time for learning how to build your own and/or learning more about how SDR works.

Speakers: Bruce MacAlister, W4BRU, has been a ham since 1995. He is most active as an instructor in the RARC radio school, chatting-while-driving via 2-meter repeaters and melting solder to build kits and circuits. With an average S7 noise level at his urban location he finds HF too noisy to work much but when he does its SSB and PSK31 on 40- and 20-meters. Rob Thomas, KC4NYK, has been a ham since getting his Novice license in 1986. After a long career consulting for national ad agencies and Fortune 500 companies nationwide, founding two software companies, two furniture companies and mentoring young entrepreneurs, Rob can be found these days plugging away at various projects from monitoring beer temperatures on the iPhone to communicating worldwide on less than 5 watts (QRP) with Software Defined Radio.

Coming Events:

January Meeting, December 9th, 7:00 PM.

Frostfest, February 7th

<http://frostfest.com/>

VE Testing Session, January 10th, 2015
9:am at the Bon Air United Methodist Church.

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.

December 2014 RARC Meeting Minutes

Meeting Date: Dec 12, 2014

Meeting Time: 7:00 PM

Presiding Officers: David Robinson, KJ4LHP, President; Ken Leidner, WV0L, Vice President; Richard Arnold, WA4FEH; Treasurer and Maylon Pearman, KG4RPQ, Secretary. Directors: Tim Farrell, KJ4NPB; George Golding, W3PPY; Buck Vaughan, KR4NL; School coordinator, Bruce MacAlister, W4BRU; and Newsletter Editor, Armand Hamel, WA1UQO.

Members and guest introduced themselves. New and upgrade licenses were announced. Minutes were approved from the November meeting.

Richard Arnold gave the Treasurer's report for November. Dues were due in November. Five new members were voted in: David Hallman, KM4GBW; David Mann, WA4UDI; Glen Strickland, WA4WVG; Mark Layne Garris, WA4WPG and David Briest (no call). Welcome to the Club!

Bruce MacAlister announced the school schedule for 2015. Registration will be February 24. New classes have been added for the winter-spring session. Please see the club's website at rarclub.net for more information. He

also reported on the Makers Fair which will be in October at the Science Museum of Virginia. Tom Flippin, KD4CMK reported on Century of Ham Radio in Richmond anniversary committee. They will need help from all members as there are many activities planned. They are planning to work with other area clubs during the celebration.

Saturday, January 10, there will be testing for licenses at the Church.

Frost Fest is February 7. Help is needed to man the RARC desk. Please contact David Robinson to sign up for any time that you can work.

The Virginia QSO Party is March 21 thru 22. Buck Vaughan, KR4NL and Tim Farrell, KJ4NPB would like the club to participate and operate under the club's Call Sign. They hope to get newly licensed hams to come out operate and have fun.

Richard Arnold announced that Len Varmette, N4NZL was leaving the club and moving out the area.

David Robinson adjourned the meeting as there was no further business.

The Christmas party was held afterwards.

From The Prez

Here it is, January already, and things are getting colder, but heating up at the same time. We have a testing session coming up on Jan. 10th, Frostfest on Feb. 7th, and the VA. QSO Party on March 21-22.

Our January meeting is the last meeting before Frostfest and we really need some help so that five (yes, only 5 people have signed up so far) members won't have the whole load on their backs. Come on folks, this is a chance to create some more good publicity for RARC and Amateur Radio.

With winter breathing down our necks and short days, what are you doing to pass the time? I plan to get my lazy body/brain (choose one or both) in gear and build a small project. Operating mobile, primarily, I worry about the problems power spikes can cause to expensive equipment. I have found some ideas for protection and plan to dive in soon. If I am satisfied with my results, I will share it at a future date.

Now for a bit of Trivia:

I found this on the Jameco Electronics website written by Managing Editor Nadia Alvarado, about the origin of the term HAM, as used to refer to radio Amateurs.

"ARRL concisely explains the [history of ham radio](http://www.courant.com/courant-250/moments-in-history/hc-250-hiram-percy-maxim-pope-manufacturing-20141225) (<http://www.courant.com/courant-250/moments-in-history/hc-250-hiram-percy-maxim-pope-manufacturing-20141225>)

[story.html](#)) and confirmed Ham is not an acronym. Ham is defined as an amateur radio operator, without any negative connotation, but that wasn't always the case. Long story short, back when commercial operators were landline telegraphers they often became frustrated with amateur operators for creating radio interference. They would call the amateur operators "hams" – a derogatory term that meant they were poor operators. Whether the amateurs knew ham was an intended insult or not, they took ownership of it and for decades have used it to refer to each other."

In closing, I hope to see everyone at Frostfest.

73 de KJ4LHP

David R.

RARC VE News

The January 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@arri.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
Regular Membership \$20.0

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

2015 Refreshment Schedule

The refreshment schedule for 2015 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!!

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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Grand Chili Cook Off

Bring your appetite and best chili to the January meeting! Grayle Hunley, KF4USV challenges you to a chili Cook Off. There will be a Grand Prize for the best chili as judged by the members. The Cook Off will go from 6 to 7:pm. Also some quarts of chili will be auctioned off to raise funds for the RARC 100th anniversary (checks accepted). But wait! There's more! Grayle will be bringing some great Philippine coffee, so bring your favorite mug and enjoy.

So let's start the New Year off with the most exciting meeting ever including a great **Door Prize!** Come with new ideas and share them at the January meeting. Bring a friend to show what the Richmond Amateur Radio Club is all about!!

HAMSITES!

Everyone has a few favorite Ham radio related websites. I have mine that I visit regularly and I'm sure most of you have yours. There are lots of facets to the Ham radio hobby and things can get quite specific in nature and also quite esoteric. Same with the Ham related websites. Many however are pretty general in content and can be appreciated by all. Also there are quite a few that offer really well done audio and video content and I'll list a few of those below. My appeal to YOU is that you let me know if you have any favorites that you think the club members would enjoy knowing about. I'll try to list a few each month as long as there is an interest.

This month's first offering is one that all area Hams should visit occasionally. Whether you're interested in emergency service or not, there is lots of information at this site, especially for new Hams. They have a great repeater list as well as a nice picture of club member Dan Bryant, N4DOB at work during a recent simulated emergency test.

<http://www.vcapares.org/>

The second is the YouTube channel of New Jersey Ham Alan Wolke, W2AEW. Alan is an electrical engineer, working as a Field RF Application Engineer for Tektronix. His videos are highly entertaining, very educational and just great fun to watch. His easy going style of presenting all sorts of Ham related topics will keep you looking forward to his next video.

<https://www.youtube.com/user/w2aew>

Got a favorite of your own? Let me know. Thanks, Armand. armand.hamel@comcast.net

CW - A new opportunity!

Interested in putting those rusty CW skills to use? Never learned CW but think you're ready to jump in? Do high speed CW QSO's cause your ears to melt into your brain? Here's a way to stop all those problems: Join the CW Slow Ragchew Net. The purpose of the group is to help new CW folks gain confidence, help old-timers get back in the groove, and plain 'ol ragchew with the "original" digital mode!

Details:

What: CW Slow Ragchew Net

When: Wednesday nights at 8:30pm (usually lasts about 30 minutes)

Where: 50.135

Who: Contact Jim Bates (K8OI) or Armand Hamel (WA1UQO) for details.

Another Reason to get an Amateur Radio License

By Bruce MacAlister, W4BRU

"Outfitting a model airplane with stereo vision was straightforward, if a little ungainly: I simply bought two identical cameras and two 5.8-gigahertz video transmitters and mounted them to the front of the plane. (Important note: To operate these transmitters legally in the United States, I needed my amateur radio license, so check your national regulations.)," wrote author David Schneider in the January 2014 issue of *IEEE Spectrum* magazine and website.

"The real challenge was how to view the two video streams stereoscopically on the ground," he added. Much of the article goes on to describe how he designed his headset to view

the images transmitted from the model plane.

Hams have long used their licenses to get more distance and less radio channel competition in operating RC (radio controlled) model planes. Where unlicensed users have to share a limited spectrum of 6 frequencies, licensed hams can use 90 channels in 50 MHz, 72 MHz and 75 MHz frequencies. The frequencies can be seen at <http://rcsource.hobbypeople.net/faqs/freqlist.htm>.

We think of ham radio as DX and contesting. It is that but for many hams DX and contesting isn't the main thing. For those hams it extends another hobby by being licensed to transmit.

The entire article can be viewed at <http://spectrum.ieee.org/geek-life/hands-on/a-diy-3d-viewer-for-remote-piloting>.



Photo: Zalman Joffe

Boy Scouts, Shotguns and Amateur Radio - What's not to love?

Boy Scout Troop 876, Midlothian, scheduled their annual "Davis Farm Shooting Expedition" for the weekend of December 12 - 14. The event had Scouts shoot around 5,000 rounds of shells - from .410, to 20, to 12 gauge. The shooting was great and the Scouts all shot as many rounds as their shoulders would take! The bruises were growing as the hours progressed :)

Bruised shoulders were good for two things: Adults got to shoot all the shells the Scouts "left over" and Amateur Radio increased in interest!

I purchased 6 Chinese UHF HT's (Amazon with Prime/free shipping) for the outing - all

radios were brand new, with chargers, batteries, antenna's, and boxes for \$90 total! \$15 per HT was just about right; if the Scouts lost, dropped, broke, or otherwise destroyed the HT - it would not "hurt" my wallet terribly.

The HT's were a HUGE SUCCESS - I had configured them with 2 memory configurations: 1st was 446.025MHz and dedicated to "Scouts", 2nd was 446.050MHz and dedicated to "Adults" I explained some basic use of the HT's as I handed them out; no bad language, have to say "K8OI" every 10 minutes or so; listen before talking; etc.

The listen before talking soon fell by the wayside - after the initial "PTT fright" dissipated, the Scouts could not find a free moment where 446.025 was not used! They doubled and (I'm sure) tripled all afternoon long - they just could not get enough words into the ether fast enough!

As the Scouts "ran off" into the woods with the HT's, a few stayed back and sat at my HF station. 10 meters was WIDE OPEN and it was a contest weekend as well - there were plenty of stations calling CQ. We listened to and made contacts with (in no particular order) Canada, Colorado, Morocco, Idaho, Spain, Oregon, Wyoming, Texas, Mexico, Peru, Oklahoma, Washington (State).

We made a number of QSO's with stations around the world and the Scouts were pretty excited. The Scouts were pretty tentative about making the QSO's, but completed a number of HF contacts anyhow.

I had originally intended to hold a Boy Scout Radio Merit Badge class, however, I had significantly underestimated how much Scout involvement the moment by moment involvement required! The Scouts were really engaged in how radio worked and expressed a lot of interest in following up with attending the Radio Merit Badge class.

I really enjoyed the weekend with the Scouts; we had a lot of fun shooting, talking, and learning about Amateur Radio. The opportunity for outreach to Scouts is wide open - stay tuned for opportunities to help!

73 de K8OI



D-Star Class Topics - Your Input Needed!!!

We are developing a D-Star class for the Spring and would like to obtain your input regarding topics. Please create a list of "things/topics" you'd like to discuss, learn, understand, share, etc. and e-mail them to jlbates4@gmail.com. All "things/topics" are welcomed! Even if you think your idea is basic or silly, please send it along anyway - if you don't mention it, do be sure that someone else will!

73 de K8OI

The SWAP SHOP

Club members may list their wares in the newsletter. Send descriptive information to Armand at waluqo@arrl.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.**

For Sale:

Heil Proset 6 with Heil Footswitch new condition with original boxes and manuals, about 6 months old. \$100. 1944 RAL7 Navy Receiver with matching 6 volt P/S – both in good working condition - \$150. Contact Kris Proctor, KK4SIJ , (804)306-4789

For Sale:

Kenwood TS2000 looks like new. Kenwood MC-90 Desk Mike. KRS-2000 Programming/Control Software. Buckmaster OCF Dipole 80-6 meters Asking \$2K for ALL equipment shown (negotiable)
Thanks!!! Gene Toler, NE4BT 804-749-4804 - ebtolerjr@gmail.com

900 MHz Radios and Antennas!!

For Sale: 900 MHz radios and antennas. Kenwood TK-981 FM transceivers for 900 MHz, used in good condition, bench checked, 15 watt, preprogrammed for Local and national simplex and repeater frequencies. Microphone, power cord and mounting bracket are included, price \$130. A limited number of mobile and base station antennas are also available. Equipment is provided at cost to promote Richmond area activity. Get yours now and join us on simplex or the 900 MHz repeaters.

Contact Dave Meier, N4MW 804-932-3641 - n4mw@n4mw.com

For Sale:

USED MILITARY ALUMINUM ANTENNA MAST SET CW-124/ GRA-4: TOTAL OF 8 ALUMINUM POLES. EACH POLE IS 66" LONG. THE OUTSIDE DIAMETER IS APPROX. 1.75". The masts are not bent and the case is in good condition. Might be missing a couple of guy stakes or small ropes but other than that the set is in good condition. PRICE: \$135.00 Sold As Is. Picture on request.

RCA TM-867 2-way/base station test set. Appears to be like new. \$50.00 Sold As Is.

Swan Electronics SWR Power Meter (Directional Coupler) Model WMM-200. Rated to 200 watts from 50 – 150 Mhz. Unit is new in the original box with the original instructions. \$150.00 Sold As Is. Picture on request.

Ameritron Model RCS-8V 5-position remote coaxial antenna switch. New in the box with instructions. \$149.00 Sold As Is. Picture on request.

MFJ Enterprises Antenna Analyzer Model MFJ-247. This is the first version of the popular MFJ antenna analyzer series. It covers 1.8 thru 30 Mhz in 5-bands which are 1.8 -2.9 Mhz, 3.2 – 5.3 Mhz; 6.5 – 11 Mhz; 12 – 21 Mhz and 18 -30 Mhz and gives a direct meter readout of the SWR for coaxially fed HF antennas in these frequency ranges. The instrument does not give impedance readings. The operation manual is included. \$50.00 Sold As Is. Picture on request

Items are being sold by Jerry Williams, KJ4IT, 804-357-2190, e-mail kj4it.jw@gmail.com.

All of this equipment is from the estate of a SK. All funds go to the family.

1. MFJ-259B antenna analyzer: \$150.00
2. MFJ-949 300 watt antenna tuner: \$50.00
3. Ameritron AL-80A linear amp. WITH 2 spare 3-500Z tubes: \$800.00
4. Heathkit 1410 electronic keyer: \$50.00
5. Heathkit HM-102 power/watt meter (200w/2000w): \$30.00
6. Heathkit HD-16 code oscillator: \$25.00
7. Heathkit CANTENNA 1 Gal dummy load with oil: \$25.00
8. Hy-Gain HAM IV antenna rotor with controller (New inbox): \$550.00
9. Autek QE-1A SSB/AM/CW filter: \$50.00
10. Swan WM-6200 SWR/power meter (20/200 watts) \$30.00
11. ROBYN SWR/POWER meter, 100/1000 watt scales: \$30.00
12. Time Wave DSP-599xp
13. A&M 10 meter ½ Square antenna: \$25.00 (good attic antenna / never been up)
14. Radio Works "G5RV" 10 – 80 meters: \$50.00 (never been up)

Contact Richard Arnold WA4FEH at 743-3899 or wa4feh@gmail.com

Thought For The Day

If pro is the opposite of con, is progress the opposite of congress?

73 de:

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