



THE RICHMOND HAM

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The RICHMOND AMATEUR RADIO CLUB will meet Friday, April 13, 2012, 7:00 PM, at the Bon Air United Methodist Church, 1645 Buford Road.

PROGRAM: Dominion "Resource's Renewable Energy Developments" presented by Emil Avram from Dominion Resources.

Coming Events:

D-STAR Academy, April 21, 10 AM - Noon

March of Dimes Walk, April 22

May Club Meeting & Silent Auction, May 11, 7:00 PM

RARC Yard Sale, May 12, 8:00 AM – 2:00 PM

VE Testing Session, May 12, 9:00 AM

Field Day 2012, June 23 & 24, Laurel Recreation Area

Getting to know this month's speaker...

Emil Avram is Director of Business Development at Dominion Resources, Inc. He is responsible for the development and acquisition of electric generation assets, with recent focus on renewable energy facilities. With 20 years' experience in the energy industry, he has overseen the development, financing and construction of over \$6 billion in power projects during his career. He is currently leading Dominion's efforts to develop additional biomass, wind, solar and other renewable generation projects within Dominion's entire generation portfolio. Currently, Dominion has over 1,600 MW of renewable facilities in development, construction, or operation. Prior to his current responsibility, he had various project management roles within Dominion leading the engineering and construction of new natural gas combined-cycle generation facilities, as well as leading a team focused on a multitude of capital improvements at Dominion's operating portfolio of electric generation facilities. Prior to joining Dominion in 2001, he spent 10 years with United Technologies Corporation in their power systems division overseeing several global power projects during their development, engineering, and construction phases for both public and private energy companies. Emil holds a B.S. in Aerospace Engineering from the Massachusetts Institute of Technology, an M.S. in Mechanical Engineering from Rensselaer Polytechnic Institute, and an MBA from the University of Connecticut.

From the Prez

Ron Chase has posted a story on page 6 (Thought for the Day) that is spot on. He affirms something that I have believed for a long time: Every successful project, amateur radio included, is typically the result of a collaborative effort. Our D-STAR repeater system is a perfect illustration.

Four years ago the Club purchased an ICOM 2 meter D-STAR repeater to replace an older analog system.

Thanks to a lot of hard work by Fred Berger, K4LJF, Ron Chase, KD4XA, Mel Ford, W4AHC, and others, the system was programmed and installed at the church. In 2010 the repeater was moved to its current location on the top of a building in downtown Richmond, and in 2011, the UHF module and new antennas were installed. Mike Owens, K4RKO, Alan Johnson, WA3J, Ron Chase, KD4XA, and Jerry Williams, KJ4IT, helped with all of this. Later in the year Anthony Harbour, KG4YXP, did the initial configuration on the gateway computer that allows D-STAR to do what it does so well which is linking to other D-STAR repeaters and reflectors.

While we had some limited functionality of the gateway for a while, firewall issues prevented us from achieving the full functionality and reliability that we knew was possible. Just a few weeks ago Jim Bates, KJ4WLH, graciously answered my call for some IT assistance with the gateway configuration. I called Jim to explain where we were and the issues that remained. His response was, "Buddy, I've just been waiting for you to call. I'll be happy to help." That's the kind of response a club leader likes to hear. We also received a great deal of help from Marshall DeBerry, K14MWP, president of the Alexandria Radio Club and the administrator of the W4HFH D-STAR repeater. Marshall was a wonderful resource as we worked through some configuration issues that you can't find documented anywhere.

I'm pleased to report that the D-STAR project is essentially complete, though a few members have expressed interest in having a "full stack" which would include the 1.2 gig voice and data modules. The gateway is working great. We can link to other repeaters, reflectors and even individual users (DV Dongle and DVAP) around the world. You can check the status of our gateway on the internet at <http://w4fj.dstargateway.org> and see who is connected to our repeaters and the last stations to be heard on our system.

Since we leave the UHF module connected to a reflector that serves the greater DC area, it's like having a wide area repeater that seamlessly covers much of the state. When hurricane season starts, we will probably link to the Southeastern D-STAR Weather Net which meets on Sunday nights at 9:00 pm.

But the point of this article is not to extol the virtues of D-STAR. It is to make the point that many people were involved in making this project succeed. No one person had all the requisite skills, but collectively we did it. When the Club leadership asks for volunteers to help with a project, I hope you will respond like those who put Richmond's only digital repeater on the air.

73, Win

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D-STAR Academy – April 21, 2012

Many of you have been patiently waiting for some training on how to use the D-STAR gateway features for linking our repeaters to other repeaters and reflectors around the world. The wait is over. We had wanted the gateway to be fully operational before conducting the training, and it is.

On Saturday April 21, 2012 from 10:00 am to noon in Room 202 at the church, the Club will offer a training session on how to use the gateway. We will discuss the mechanics and etiquette of linking our repeaters. We will also show you some of the radio and internet tools for how to check on the status of our D-STAR repeaters.

If you are not already registered on a D-STAR gateway somewhere, you need to be registered in order to use the linking features. You should only register one time. Registration on any gateway gives you access to the full D-STAR system. If you have not registered on any D-STAR gateway, you can go to <https://w4fj.dstargateway.org/dstar.do> to register. It may take a day for your registration to become effective.

We will be able to register anyone who is not already registered at the training session, but in order to apply what you will learn it would be good for everyone to complete a gateway registration in advance.

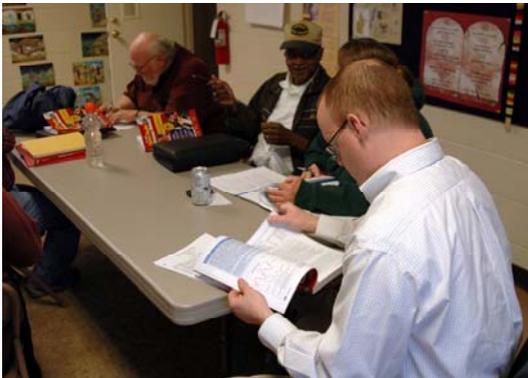
Since most linking functions are performed by programming memory channels to execute the commands, considerable time will be devoted to how to set up your radio so that you can easily access the gateway features. If you have a D-STAR radio and want some help programming it, bring it to the training. If you have your own programming software on a laptop, you can bring that and any data cables you have. We will have some laptops with programming software and cables for most (but not all) D-STAR radios to help you get set up quickly.

No reservations required. Just show up. Contact Win Grant – WA4SSG (wingrant@gmail.com) with questions.

Large Student-Body for RARC Spring Classes

We have 24 students and 5 instructors for the March to May RARC Spring license classes.

Fritz Schumacher, KI4HWQ, has the largest class with 14 students studying for Tech.



This is the second time Fritz has taught Tech. Blake Forbes, KK4FLN, assisted by Mayron Pearman, KG4RPQ, has 3 working on General. This is the first time Blake and Mayron have taught. The Extra class of 9 students is taught by me assisted by Buck (Edward) Vaughan, KR4NL. I've taught Extra before but it's a first for Buck. RARC Technical Committee head, Tom Flippin, KD4CMK, is helping with demonstrations of equipment and showing waveforms and such with a signal generator and an oscilloscope.

Bruce MacAlister, W4BRU, RARC School Coordinator

HMERT Exam Cram

In January of this year Mac McNeer, K4YEF, received a call from the Coordinator of the Health and Medical Emergency Response Team of The Virginia Office of Emergency Medical Services (OEMS) asking for support in developing an internal Amateur Radio capability for that Office. The Virginia Office of Emergency Medical Services has a requirement to maintain a reliable internal communications system which also includes Amateur Radio. The Office has Amateur equipment but needs licensed Amateur Radio operators.

The "Exam Cram" was scheduled for 24 and 25 March at the OEMS Office in Glen Allen. Attendees and applicants came from around the State. These included Paramedics, EMS Rescue Squad members, EMTs, and a Nurse who is also a Paramedic at MCV (VCU). Each was asked to study appropriate Q&A test materials and to take practice tests on line before coming to the sessions.

Mac solicited the talents and experience of RARC members. Win Grant, WA4SSG, discussed law and regulations. Using demonstrations and effective explanations, Bruce MacAlister, W4BRU, reviewed Electrical components and Safety. Fritz Schumacher, KI4HWQ, covered Operational Procedures and Electronic Principals. Jerry Williams, KJ4IT, elaborated on Antennas and Radio Propagation, and Allan Johnson, WA3J, explained the organization of Amateur station set up and equipment and administered the Exam sessions. Additionally, Richard Arnold, WA4FEH, attended to help with the Exam process and collection of exam fees. Marshall Ervine, N4XBP, attended to grade exams and assure that there were enough Examiners present. John Hickman, KJ4YKK, helped to keep the process flowing smoothly and efficiently. And, RARC member, Dave Thomas, KB4IQT, came to the Exam session and upgraded to EXTRA. Congratulations, Dave.

Mac reports that both the Cram and Exam efforts were a success. The Coordinator and attendees expressed their pleasure and gratitude for the ad hoc team's efforts. Because of the effectiveness of the Team's positive response, the Coordinator has asked for another session next year. Stay tuned.

* * *

RARC VE News

RARC had two testing sessions in the month of March. The first one on March 10 at the church with 11 tests given netting 2 Techs, 2 Generals and 3 Extras (1 zero to Gen). The second one on March 24 and 25, at the VA EMS HQ with 26 tests given netting 13 Techs, and 1 Extra. Total for the month 37 tests given, 15 Techs, 2 Generals, and 4 Extras.

Our next VE testing session will be **Saturday, May 12th, 9:00 AM**, at the Bon Air United Methodist Church.

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.

March Meeting Minutes

Meeting Date: March 9, 2012

Meeting Time: 7:00 PM Called to order at 7:10 PM

Presiding Officers: Win Grant, WA4SSG, President, Patricia Johnson, N8WEA, Secretary and Richard Arnold, WA4FEH, Treasurer

The President called the meeting to order and welcomed all. Visitors included were: Gus Williams, KJ4VFC, Steven Adams, K4CMR, Ed Winfree, KE4FSL, Tom Rogers, KJ4CHS and Jack Simila, KK4GHA.

Old Business:

The February minutes were approved and motioned to accept.

The Treasurer's report was provided by Richard Arnold, WA4FEH.

New membership applications were received from Jim Hartselle, AF4QG, Ed Winfree, KF4FSL, and John Simila, KK4GXA. A motion was made and seconded to approve the applications. Welcome to the club!

Mac McNeer, K4YEF gave a special announcement reminder that the club would be giving a special class and testing session to the State health department workers. This event will be held at the Virginia Office of Emergency Medical Services (OEMS) on March 24th and 25th. This is a special mission with homeland security trying to get all of the workers there licensed. If anyone is interested in helping, please let Mac know. It would be a great opportunity to volunteer and show your support.

New Business:

- A special thank you was given to the club for the donation of a surplus repeater to the Metropolitan Repeater Association. The club was happy to help out.
- Bruce MacAlister, W4BRU gave an update on the school which began March 6th. Registration went well and the classes are all good sized. All the classes also have instructors. Good luck to all students. ☺
- Allan Johnson, WA3J, reported that VE testing would be held at 9:00 the following morning, March 10th at the church (upstairs level). If

interested in testing or upgrading, please attend. All are welcome. No pre-registration necessary. Cost for the testing is \$15.00.

- Win announced that there would be a Ham Radio Cruise-In in Charlottesville April 28th from 10:00 am to 4:00 pm. If interested, the Pre-Registration form was attached to the February Newsletter. Sounds like a great day in Darden Towne Park.
- A special thank you was given to Chris Walker, N4CBW, the webmaster. Thanks for all your hard work. It looks great! If you haven't checked it out yet, please go to www.rarclub.net. (*I just did and it does look great!*) ☺
- The March of Dimes walk will be April 22nd in Monroe Park. If interested in helping, all you need is a HT radio and good walking shoes. Contact Roy Schultz, KI4MCX if interested.

There was no further business, so the meeting was adjourned @ 7:25 PM. Win announced the speaker for the night, Joe Husnay, Chief Engineer at the FCC's Enforcement Bureau, South Central Region. The program was enjoyed by a packed house. Following the meeting, many members enjoyed viewing the fully equipped vehicle in the parking lot. Thanks to Mr. Husnay for a wonderful "show and tell".

Respectfully submitted,
Patricia Johnson, N8WEA

Welcome our new members!

Jim Hartselle, AF4QG, John Simila, KK4GXA, and Ed Winfree, KF4FSL.

Public Service Events

This year the March of Dimes march for babies is being held on Sunday, April 22, in Monroe Park. Volunteers will need an HT and good shoes. Come on out and have some fun. This event usually takes till about noon. If you can help, please contact Roy Schultz at royschultz@hotmail.com.

Roy, KI4MCX

Mark your calendars now!

Field Day!

June 23 & 24, 2012

We are joining with RATS again this year. It was great fun last year. Great location, great operating setup, great food, great fellowship! Please plan to join us!!



RARC's Annual Yard Sale

Every year we count on our members to donate "stuff" to be offered at the sale and auction. The Yard Sale and Silent Auction are the only fund raising events we do each year so they are pretty important. Please start looking for things around your house that you are willing to donate to help the Club out. They are fun events and it always makes our piggy bank a little fatter. We can also use help at the sale so we are looking for volunteers. *More info on page 6.*

Silent Auction

Our annual Silent Auction has been a great fundraiser for the Club for the last couple of years. We were blessed with donations of some real nice ham gear from many different sources. This year we are asking our members and friends to consider donating any ham gear that they feel they will never need or use again. We have many new hams in the Club that could use some gently used older gear to help them get started. You can't write the donation off on your taxes but you can get a good feeling inside that you have helped a fellow ham and the Club at the same time. Please let Marshall, N4XBP, know if you have any gear you are willing to donate. We need to know by the end of April. Auction items will be listed in the May newsletter. Thanks!

Legislative News: Payroll Tax Bill Includes Provision for Amateur Radio Study

A bill that passed both the House and the Senate on February 17 -- and signed into law by President Obama on Wednesday, February 22 -- includes a provision for a study of the uses and capabilities of Amateur Radio Service communications in emergencies and disaster relief.

Section 6414 of the *Middle Class Tax Relief and Job Creation Act of 2012* mandates the completion of the study, with a report of the findings to the House Committee on Energy and Commerce and the Senate Committee on Commerce, Science, and Transportation. This study would "use the expertise of stakeholder entities and organizations" to recommend how to best use radio amateurs in emergency communications and disaster relief efforts, and how to best utilize the Amateur Radio Service in coordination with the federal government in these efforts. In addition, the study would also discuss the effects of unreasonable or unnecessary private land use restrictions on residential antenna installations and recommend ways to remove such impediments.

The bill passed in the House by a vote of 293-132. In the Senate, it passed by a 60-36 vote. Read more [here](#).

This article appeared in the ARRL weekly e-newsletter.

Submitted by Bruce MacAlister, W4BRU

Remote Operations, Part I

Jim Bates (KJ4WLH) - March 2012

I need to start this article with a confession; I am a very lazy man. I mean it; I've heard it from my XYL, so it

must be true! My laziness really is part of "me" – I am HAPPY spending LOTS of time avoiding something that is routine, trivial, or just not that exciting. I prefer spending time "thinking" (some might call it procrastinating, others might even call it daydreaming) about ways to make those activities not even happen – you know, ideas like paving over the front yard and putting down AstroTurf so I don't have to cut the grass; ideas that will never fly...

As I daydreamed about ways to make amateur radio even more part of my daily life, I'd often wondered what it would be like to have a complete, remote setup. You know what I mean: every band, every mode, plenty of power, great audio, rig control, antenna tuning, logging, easily portable, all that and more. What kind of "freedom" would that bring!? How could I accomplish this? How much would it cost me?! Does the technology exist to do all this? Even if I could, why would I want to operate remotely – I mean, isn't turning the VFO knob part of "being" a HAM?

Recently, my XYL made the fine "suggestion" that the coax hanging from the rear of the house needed to come down and I should just put my "stuff/toys/junk" outside in the shed. Not a bad idea I thought! I'd run power (50 amps of 220) to the shed several years ago to run power tools (table saw, planer, dust collector, etc.) and I really hadn't built a woodworking project in a couple of years. It turned out that the shed was a great idea; now I've got all my gear there – plenty of light, it's quiet, great ground system, and ALL the coax is just run wherever I need it – right through the floor! There is a thermostat controlled heater which keeps the shack at a comfortable temp when I'm in it and a "maintenance mode" which keeps the shed at 55°F when I'm not. I've also got a window and when summer rolls around, I'll be placing an AC in there. I've got a wireless router and a laptop connected to my home network – so I even have internet access. If I had a small fridge, coffee maker, and toilet – I'm not sure I'd really need to get back into the house!

By now, you might be asking, "If you've got a shack like that – what are you complaining about?!?" Remember the beginning of the article – the part where I said that I was lazy. Here's how that part fits in - the shack is outside. That's it. WHAT?!? You're moaning, complaining, and whining about having to WALK outside to your comfortable, DEDICATED, HAM SHACK?!? Yep, I sure am... Ok, ok, ok... There's a little more to it than that – I work from home quite a bit and my office is not located in my shack – it's in the house. Additionally, when I travel, it would be really nice to work my rig – not just a 2m/70cm HT, while somewhere other than at my QTH.

Remote operation – the answer to my quest for even more idleness! With a remote control station, I could sit at my desk at home or desk at work, link up my laptop and work the world! I could use my Ham Radio Deluxe software to control my rig, DM780 for PSK31 and automatically update PSK reporter, while automatically uploading my contacts to eQSL with no delay! (LOTW still needs a manual upload, haven't quite figured that

one out...) Headset and wireless network allows me to take my laptop anywhere in the house – OR BETTER YET, anywhere with an Internet connection! I would be able to participate in the D-STAR net on Wednesday evening, attend the 50.215 6m Central Virginia net at 07:00 for the early check-in list, perhaps follow the grey line for some 20m PSK31, and if I wanted to show anybody at work what Ham Radio is about – just connect over the Internet! The possibilities are (almost) endless!

For those of us who like lists, here are the things that I really wanted from remote operation:

1. Do EVERYTHING that I normally do at my station – except be there!
2. Ease of use – Be easy to understand, use, change, and operate.
3. Portability – Operate anywhere that had wireless or Internet connectivity
4. Reliability – Works reliably all the time – not just sometimes
5. Integration – Must work with Ham Radio Deluxe, DM780, etc.
6. Laptop Compatibility – Software remote operation
7. Rig Compatibility – Must work with my rig!
8. "Reasonably" priced!

The good news is that I've managed to get most of that list into my current operating environment. There have been a few bumps and bruises along the way; however, I've got to say, I've enjoyed most of the journey and am quite pleased with where the road has taken me!

Until next month – 73 de KJ4WLH

Strays

If you are not a member of ARRL, you might want to reconsider joining. Starting in June, in addition to the print copy of QST, all members will have access to an online, digital edition of QST at no extra cost. Members will also gain access to archived issues of QST from December 1915 to the present! You must register on the www.arrl.org website to gain access. Keep an eye on their website 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.

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 (932-9424) has information on his website <http://w4pw.org>.

- RARC has the first D-STAR digital repeater in the area. 147.255 (+) and 443.7125 (+). We now have the gateway tied into the worldwide D-STAR network.
- The Club sponsors several 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. Check it out!

RATS/RARC's Field Day 2011



The SWAP SHOP

Club members may list their wares in the newsletter. Send descriptive information to Barbara at wa4vuo@arrl.net. 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: Two 2-meter radios. **ICOM IC-211**, 2-meter SSB, CW, FM transceiver, mic, manual, IC-RM2 computerized remote controller. \$200. Also, **Kenwood TS-700A**, 2-meter SSB, CW, FM transceiver, mic, manual, VOX 3 VOX unit. \$125. Will sell both radios for \$300. Call Jerry Jones, WA4CQX, (804) 449-6245.

Wanted: 6 meter multi-mode transceiver. Base or mobile. Need SSB modes. Please email Blake Forbes at dforbes53@comcast.net

For Sale: Kenwood TS-450S, HF, 100 W, transceiver with hand mic, DC power cable, and Owner's Manual on CD. \$400. Ron, KD4XA, kd4xa@arrl.net.

Thought for the Day

There is a story about four people whose names were EVERYBODY, ANYBODY, SOMEBODY AND NOBODY. There was an important job to be done and EVERYBODY was sure that SOMEBODY would do it. ANYBODY could have done it, but NOBODY did it. SOMEBODY got angry about that, because it was EVERYBODY'S job. EVERYBODY thought that ANYBODY could do it, but NOBODY realized that EVERYBODY would not do it. It ended up that EVERYBODY blamed SOMEBODY when NOBODY did what ANYBODY could have done.

73 de:

Win Grant	WA4SSG	PRESIDENT
Pete Fundinger	AA4PF	VICE-PRESIDENT
Patricia Johnson	N8WEA	SECRETARY
Richard Arnold	WA4FEH	TREASURER

RARC YARD SALE

Saturday, May 12, 2011

8:00 AM to 2:00 PM

Bon Air United Methodist Church, Fellowship Hall

Please help make this a great fundraiser for the Club.

Bring donations of clean, usable items of any kind with you to the May 11th Club meeting. Suggestions include: household items, children's toys, books, (technical books are popular), pet items, computers, kitchen appliances, dishes, electronic items, sports items, decorations, crafts, tools, exercise equipment, plants, DVDs/CDs, jewelry, watches, and furniture. Please price as many of your items as you can. Please note on your electrical/electronic items whether they work.

Donated items that are not sold will be given to a local charity unless they are picked up prior to 1:30 PM the day of the sale.

If you have any questions, please call Win Grant at 301-8847 or Marshall Ervine at 320-8629.