THE RICHMOND HAM

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December 2018

THE RICHMOND AMATEUR RADIO CLUB will meet Friday, December 14th 2018, 7:00PM, at the Bon Air United Methodist Church, 1645 Buford Road.

Coming Events:

RARC VE Testing Session. January 12th. 2019.

This Month's Program:

Annual holiday meeting! Bring and share your favorite goody treat!

November 2018 RARC Meeting Minutes

Meeting Date: October 9th, 2018

Meeting Time: 7:00 P.M.

The meeting was held at the King's Korner Restaurant.

The new club officers were sworn in and are as follows;

President:	John DeMajo, K5HTZ
Vice President:	Allan Johnson, WA3J
Secretary:	Dave Robinson, KJ4LHP
Treasurer:	Ken Leidner, WVOL
Director:	Win Grant, W4WIN
Director:	Chris Pohlad-Thomas, KC1E

From The Prez

I want to thank everyone for the confidence you have placed in me by electing me as your new RARC president. It is obvious that our past president, Jim Bates, has organized the operational functions of the president very efficiently with the ample use of technology. Jim's dedication to improving the ways that the club distributes information to its members, is not only outstanding, but it has made the transition much easier. I appreciate the help that Jim and the other officers and directors have given me in learning to use all of these new tools, and I hope to maintain that same level of open communications with all of our members.

Throughout my work career, I have always maintained the position that open communications within any organization, is the key to success, so please do not ever hesitate to let me know what is on your mind. If there is something we can do to make the club better serve the needs of the membership, just drop me an email.

In looking over some of the history of this organization, there is no doubt that RARC has played an impressive role in the development of Ham Radio. With your help, we will continue to make this organization serve the needs and wishes of the Richmond Ham community. On that note, I would like to ask for volunteers to provide educational programs for our meetings. Just as in the business world, continuing education is essential in any field that continues to evolve on a highly technical level. One of the most valuable services RARC can provide to its members is to keep everyone up to date, through education, allowing us to better utilize the resources available to us as Ham radio operators. Each of us has our own areas of interest in the hobby, but wherever your interests lie, having a greater understanding of what is available to us as Ham radio operators, makes us more valuable to ourselves, and to the people we serve in the community. If you have an idea for a program, please let me know so that we can schedule for you an opportunity to share your knowledge.

John, K5HTZ

President's appointment to RARC Board.

The RARC by-Laws provide that, in addition to elected and appointed officers, the incoming President may appoint an additional Director to the RARC governing Board. This year John DeMajo, Club President for 2019, has appointed **Tom Ebbert, KG4BIZ** to serve in that position.

Tom has been a active member of RARC for many years and is a past President of RARC. He currently runs the Monday night 10 meter net on 28.475 mHz and the Sunday night 6 meter net on 50.135 mHz.

RARC VE News

FCC EXAMS EVERY OTHER MONTH

RARC offers VE Testing Sessions on the second Saturday of odd months except June to cover Field Day instead of July: Bon Air United Methodist Church, 9 AM.

The November testing session will be on the 10th at the Bon Air United Methodist Church, 9 AM.

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

RSS – a quick summary of RARC news

Look near the top of the club web site, http://rarclub.net/, and on the left you see an icon that looks like something radiating a signal. Actually it is a quick way to check on new entries on the website called an "RSS feed." Click it and you get a summary of the last few posts. You can have it put as a link in your on the browser list as you see in yellow. So each day or four you click the that link and you get a quick list of the most recent posts. If one looks interesting, click it in the list and it takes you directly to it. If everything looks boring, just go back to what you were doing.

Reported by Bruce MacAlister, W4BRU

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	$20.00

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

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 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!

Radio Pioneers

As Amateur Radio Operators we owe a great deal to those who paved the way through some difficult and perplexing technical and scientific issues. They also were there to shepherd a young hobby through threatening times when many governments and commercial enterprises didn't look too favorably on "amateur" experimenters. Many of these folks are familiar to most Hams but many are not. Hopefully as time and space permit I will submit a short Bio of these pioneers.

WA1UQO

Oliver Heaviside

The name of Oliver Heaviside may not be heard as much these days but he made many major contribution to radio and wireless technology in his day. In fact the ionospheric layers were often called the Heaviside layers in honor of the fact. Using mathematical methods he postulated the existence of an ionized layer above the Earth from which radio waves could be reflected or refracted back to ground. However he made many more valuable discoveries using his mathematical methods, explaining many of the problems that affected signal transmission in his day.

As a person Oliver Heaviside lacked many social skills. He was opinionated, and impatient with those less intelligent than himself. However his intelligence could not be questioned, and it was all the more remarkable as a result of the fact that he was largely self taught.

Oliver Heaviside was born on 18th May 1850 in Camden Town which is now in London. At the time it was a notoriously crime ridden area, Physically Oliver Heaviside was short and he was also a red-head. Life was not easy in Camden Town and the young Oliver had a difficult time. This was made worse by the fact that he suffered from scarlet fever and this left him partially deaf - an impairment that had a major impact on his life.

Heaviside was intelligent. He did not attend a neighboring school, but rather attended a school for girls run by his mother. Although this protected him from the influence of the local boys it did not develop his social skills and coupled with his hearing impairment he was unable to make friends easily. Despite being a good student, Oliver Heaviside decided to leave school at the age of sixteen.

After leaving school Oliver Heaviside did not stop his studies. He was fortunate to have a learned uncle, Sir Charles Wheatstone - the inventor of an early telegraph and the man who gave his name to the Wheatstone Bridge. Under Wheatstone, the young Heaviside studied German and Danish as well as learning some things about mathematics, electricity and the telegraph.

With his understanding of telegraphy and Danish, Heaviside managed to secure a job as a telegraph operator in Denmark. Here not only did he devote himself to his job as a telegraph operator, but he also undertook some investigations of his own. He noticed that the speed at which traffic could be sent varied according to the direction. This had been thought by many to result from some unknown properties of the undersea cable. However Heaviside looked at the problem from a different perspective and he deduced mathematically that the difference must have resulted from a different resistance at either end of the cable. In simple terms one end had a lower resistance and was able to put more current into the capacitance of the cable, and as a result data could be sent more swiftly.

Heaviside left Denmark, moving to the Great Northern Telegraph Company, and here he started an analysis of electricity. Then in 1874 he left the company to continue his researches on his own at his parent's house where he could focus better on the topic in hand. Although effectively a self-taught mathematician with a good understanding of calculus Oliver Heaviside studied Maxwell's Treatise on Electricity and Magnetism which he found particularly interesting.

Using mathematics, Heaviside applied Maxwell's theories to telegraph lines, and in particular to ones which traveled long distances such as underwater cables where the speed and shape of the signals were impaired by the effects of the inductance in the cable. Contrary to the belief of many, Heaviside correctly showed that the level of distortion could be reduced by adding induction coils to 'load' the cable.

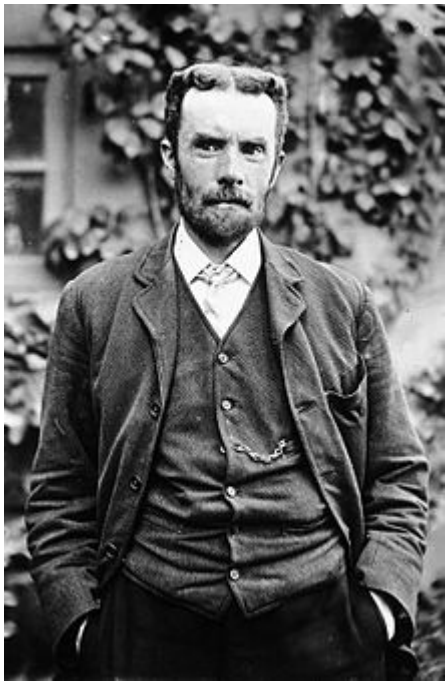
In this way Heaviside managed to solve one of the greatest problems affecting telegraph systems of the time. In addition to this the same solution was applied to early telephone systems which were unable to send voice signals over any distance because the low and high frequencies traveled at different speeds rendering the audio garbled over any distance. By adding small inductors along the length of the cable, the problem could be solved.

Heaviside gained little recognition for his work. In the first instance his papers were very difficult to read. Secondly, his manner was very difficult, and he was often sharp and his comments lacked any form of tact or diplomacy. As a result he created many enemies in the scientific community and as a result his work was often suppressed or ridiculed. It took 20 years and a rediscovery of the inductance idea by Silvanus Thompson. Only at this point were long distance telephone calls able to become a reality.

As he grew older Heaviside continued working on electromagnetic theory and its applications. One of his major legacies of this time was that he developed the concept of "operators" in the calculus equations and this reduced complication of the mathematics. It actually results in a technique known as the "Laplace Transform."

Also during his latter years, Heaviside introduced the concept of reactance. He further postulated the concept of an ionised layer above the Earth that reflected or refracted radio signals. Although this is now known as the ionosphere, the regions in the ionosphere were for many years known as the Heaviside layers or the Heaviside-Kennelly Layers. Kennelly also proposed the idea of the layers.

As on old man, Oliver Heaviside spent his final years comfortably, although his mental powers diminished. "I have become as stupid as an owl," he once bluntly stated. Heaviside died at the age of 74 on 3rd February 1925.



Oliver Heaviside

The SWAP SHOP

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

FOR SALE

MFJ-939Y3 AUTOMATIC ANTENNA TUNER Never used, kept covered in non-smoking home
On-line price is $159.95 but your price is $60.00.
Slightly weathered but NEVER USED **SteppIR 80m Vertical Antenna** CrankIR, 80m Adjustable Radial, Pole Extension, Quick Clamp Kits and Travel Bag On-line price is $615.00 but your price is
$300.00.
Call Patrick Boland KE4BUO 804-594-6627 bolandpatrick55@yahoo.com

Wanted

Two (2) surplus type '30 (thirty) thermionic triode valves.
Matched pair preferred.
Will buy or trade.
Contact Alexander Sahhar at 804-560-3449 agsahhar@gmail.com

Thought For The Day!

Eat, drink and be merry, for tomorrow you may diet.

John DeMajo	**K5HTZ**	**President**	**(504) 592-1068**	jdemajo@demajo.net
Allan Johnson	**WA3J**	**Vice President**	**(804) 318-6951**	wa3j@arrl.net
Dave Robinson	**KJ4LHP**	**Secretary**		
Ken Leidner	**WV0L**	**Treasurer**		

Merry Christmas!!

Banquet Installation of New Officers and Directors

November 9th, 2018, the officers and directors elected at the October RARC meeting were installed at the annual banquet. New president John DeMajo, K5HTZ, on the upper left spoke to the members after installation. On the right outgoing president Jim Bates, K8OI, greets the new president. At the bottom, the new and the outgoing officers and directors present are introduced by Jim. Left to right they are George Golding, W3PPY, Win Grant, W4WIN, David Robinson, KJ4LHP, and Ken Leidner, WV0L.