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ARRL REVISES ITS RESTRUCTURING PLAN IN RESPONSE TO THE FCC'S PLAN

ARRL Bulletin 90 ARLB090

"In a special meeting October 24, the ARRL Board of Directors unanimously reaffirmed the bulk of its July 1998 Amateur Radio License Restructuring plan with some modifications. Among other things..."

(The entire bulletin can be found on the AARC web page and at ARRL's web page. Below are some summary statements.)

QUICK OVERVIEW OF ARRL BULLETIN Some salient points listed and assumptions retained from the first ARRL Restructuring statement.

- Adopts FCC (current) license names; Technicians: require only a 35 question exam and suggested offering CW privileges on General Class CW bands. No formal code testing required. It would in effect be self-testing/practice opportunities which they "believe" would meet the International requirements; 200 W PEP maximum. 80-10 meters
- No more Novice or Tech+. They are still proposed to be folded into General Class.
- No multiple choice CW exams.
- Exam questions: Technician Exam (35); General (35) + 5 wpm; Advanced (40 down by 10) + 12 wpm; Extra (50 up by 10 and more highly technical subject matter). Retention of present topic areas. "It also affirmed 'its strong desire' that written exams be modified as necessary to demonstrate better the depth of the applicant's current radio technical knowledge and operating skill."

FRITZ on...

The ARRL Bulletin Summary above. I can live with that. I still would like to see some educational opportunities for theory advancement for all Hams. Perhaps some theory seminars. 1 or 2 sessions each, conducted by the experts we have in the Club. Education Committee, are you listening?

Joe, KD4RWX

NOVEMBER CLUB MEETING

Tuesday NOVEMBER 10, 1998 7:30 PM

Topic:

Phase 3D Video and AMSAT

National Radio Astronomy Observatory Auditorium
on the UVA Grounds off Edgemont Road

GREMLIN UPDATE (10/29/98)

If you attended the last AARC meeting, you already know that we have made a significant break through in eliminating the latest gremlin. The first breakthrough was discovering the pager was operating on 158.1 MHz. We confirmed this by injecting a weak signal into 76 while listening to both the pager and 76's output.

The second break came just a few minutes later when the pager gave a voice ID of KNKJ980. Paul Dean (WB9HGZ) traced this through online FCC databases to CFW telephone. CFW operates three pagers in the area on this frequency. One pager is at Martha Jefferson Hospital, another on Carter's mountain. The third pager is in Waynesboro.

Based on Paul's information, I did some DFing (Direction Finding) and requested others on the email list to do the same. I found a very strong pager in MJH and noise from a pager both above and below the 76 input. The signals were strongest right in front of the hospital. DF reports from Tom Lachendro, AD4AD, indicate that the pager is coming from the city and not from the mountain. Other reports from Paul Dean and Ed Deasy, KF4UTD, indicate that the pager is not coming from downtown. No reports indicated that the pager was coming from Waynesboro. At the last meeting, I announced that the pager appears to be inside MJH. The next step was to talk to CFW.

I made several calls to CFW and eventually got in touch with a technician responsible for maintaining the pager. He examined the pager at MJH and stated that the pager was operating within specifications (10 watts output) and that there were no measurable emissions around our input frequency. At this point, we have to back up one step and better isolate the offending transmitter and get CFW to take a closer look. The tech indicated that he would be willing to get together one afternoon for further testing. We should have this new information by the next club meeting.
Mike Duvall (AC4ZQ)

SILENT KEYS

We note the passing of two Hams.

- Lee Groller (WD4BAV). Lee became a member of the AARC in December, 1997. He died following a very brief illness.
- John Harvey (WB4KIT). John lived in Fishersville and had been a frequent visitor to our nets. He had been ill for a lengthy period of time.

AARC Leadership for 1999

President: Don Bush, KE4DDR

Vice President: Jessie Preston, KE4OID

Secretary: Joe Fritz, KD4RWX

Treasurer: Sharon Duvall, KO4OC

Directors:

Rick Berman, KO4WQ

Ann Condrey, W0ANN

Dave Damon, K4DND

Mike Duvall, AC4ZQ

Hein Hvatum, N4FWA

Congratulations to those elected to serve the AARC during 1999. At least, in my time with the AARC, there are some firsts. The Vice President is a female and the top 2 positions are held by Technician Class licensees.

Special thanks go to all of those who permitted their name to be placed on the ballot for voting. If you were not elected, do not be discouraged. There is another election in October, 1999. If you wish to try again, then let the next Nominating Committee know. It will be appointed at the September meeting. If you have some ideas about the direction the Club should move, step up and say, "I'd like to be nominated for President."

In the meantime, there are several committees which will be appointed by the incoming president at the January Board Meeting. Let Don know of your interest and begin your service to the Club during 1999 by working on a committee for your favorite activity.

WINTER DINNER

It is not too early to be thinking about the Winter Dinner, which is held in January. Jessie (KE4OID) will be taking the leadership on the planning. If she asks for assistance, step up and help her out.

One of the biggest problems associated with this process is that in the past, people have NOT indicated, early in the planning process, that they were coming. LET HER KNOW EARLY.

A Special KC4TQF T-HUNT

Is Coming This Month.

Joe and Nancy will be hiding a transmitter on

Sunday, November 22, at 1:00 PM.

See Cover Page for additional information.

The President Speaks

I was at a local restaurant the other day and ran into an old friend of mine who is a ham, like I am. We got to talking and he asked about our Club and I asked about his. The story he told me left me a little distressed. You see the Club he belongs to is an old, established Club and my friend (we'll call him Jim) has been a member a good number of years. He told me how, when he joined, the Club was just really getting its feet under it. He remembered that the Club started to actively recruit already licensed hams to join, then started to give yearly classes to recruit non-hams and turn them into hams. As the Club grew, they were able to start participating in small community events. This got them noticed and soon they were being contacted to help out with Public Service events working with groups like the March of Dimes and the MS Society. Oh Jim really enjoyed that...anything that would allow him to talk even more.

Soon the Club was pretty big, boasting over 190 members (not too bad given the size of the community he lived in). For the next few years Jim said the Club was really sailing along and they were very involved in many areas...contesting, paper chasing, satellite work, Public Service, etc. There was something for just about everyone and as the Club grew and its treasury grew. They were able to expand into other things like owning first one repeater, then two. They put up a DX cluster for the testers and paper chasers. These were good years, but something happened. Jim isn't sure just what it was because the membership in the Club stayed about the same...around 190 - 210 people for quite a while.

It just came to pass that slowly people started to stop being involved. Oh, they still paid their dues and many even added a bit more to help cover some of the things the Club wanted to do, but they stopped becoming physically involved in these things themselves. Over the next few years the Club quit contesting. The paper chasers stopped chasing paper. Oh, the satellite folks still worked the satellites, but not as a group and they stopped operating any satellite events. Soon, the Club had a paid membership of about 195 with about 25 people doing the main body of events. Of course, many of the things the Club used to do had to fall by the wayside because there were not enough people to do them.

Jim stayed on with the Club until recently. He said that he wanted to be involved in an active Club and that this once very active Club was more a social Club than anything else. The last year that he was involved in his former

Club, they did one (1) Public Service event and participated in Field Day in conjunction with another Club because they couldn't even get enough people together to operate Field Day.

At this time, the Club membership has dropped to about 43 from its heyday of 200. I asked Jim what he thought had happened. He said that he didn't know just why people had quit being involved, and he guessed that they thought that by paying their dues and maybe a little extra, that that was all that was needed to keep the Club going. "Why don't people understand that it's the doing that gets things done? If I run out of gas on the highway, stuffing 10 dollar bills into the gas tank isn't going to get me home. I need to physically fill the tank with gas."

I guess what he was saying was that paying the dues meant more than a simple monetary payment. It also means that there is an understood payment of your time and physical effort in order to keep the Club functioning. He said that the saddest thing of all was that over the past 20 years or so, the area he lives in has grown quite a bit and now boasts (according to the latest Buckmasters CD ROM) a ham population of over 400 hams. Of those, 43 belong to the Club - just about 10%.

That seemed like quite a waste of potential to me. He agreed. We finished our lunch and went our separate ways and I thought to myself, I'm sure glad that couldn't happen to our Club.????
Bill, KC4TQF

IT'S "OUR" CLUB

Recent events involving our election of officers have set me to thinking (OK, OK... that's a rare happening, I know!) about the future of the AARC. The Nominating Committee was unable to obtain candidates for the offices of President and Vice-President. That is tragic for a club the size and senior status of "Our" club. We are an ARRL Special Services Club... an indication that we do all the things necessary to be an important part of the community and Amateur Radio. Do "WE" (and that's all of the membership) truly deserve such a designation or is it because a very few have done so much to attain such recognition?

Why do we belong to a club? Is it for entertainment? Is it the opportunity to meet the folks we chat with on the air in person? Is it a sense of obligation... our dues help to support WA4TFZ repeaters? Is it a desire to help one another with problems we can discuss in person with club participation

thrown in? What is your reason for belonging? Perhaps it is a mix of all the above.

One thing becomes readily apparent when reviewing that last set of comments. There isn't really much of "YOU" or "ME" involved, unless we come to meetings with ideas and participation instead of paying our admission to be entertained.

The club needs your ideas, your input, your active participation. That doesn't mean you have to spend ALL your allotted Ham Radio time on club items, but it does mean you can contribute ideas to our Officers and Board Members and then provide the needed hands and feet to help do the job.

Believe me because I've been there... a club President looks for the membership's assistance. We were fortunate that two of our members, KE4DDR and KE4OID, permitted their names to be entered for those leadership posts. However, don't for a micro-second think that they accepted knowing that you and I expect them to keep us entertained throughout the year! Communicate YOUR ideas for programs, outside activities and other ways in which the club can deserve to maintain the recognition it has achieved.

AND... besides contributing ideas, VOLUNTEER to be on a committee for special activities... Field Day, the Dogwood Parade, setting up a station or exhibit at a public event or visiting a school and demonstrating Amateur Radio to the young folks.

You can help make Don and Jessie's job very enjoyable if you make yourself an active part of AARC activities. And some of us...the Senior Citizens of Ham Radio...will be standing and cheering (and helping, too.) It has been my pleasure to write thousands of words which have made their way into these pages, but none have ever been as serious as those you are reading now. 73...
 /S/ Harry, W2HD

T-HUNT

Try your hand at out-foxing the fox on the first T-Hunt in this area, in some time. Transmitter Hunting can be fun, as well as instructive. Sometimes, we have a real need to locate the source of signals which interfere with our own transmitters.

This T-Hunt honors Bill, KC4TQF, who has T-Hunt stories to tell. Be cautious, he is known to tell big fish stories, also.

See cover for more details.

BIRTHDAYS: NOVEMBER		
KD4GRM.....	Melissa.....	Nov 3
KD4TOR.....	Bill.....	Nov 7
KC4UCK.....	Pete.....	Nov 8
W4CZY.....	Billy.....	Nov 8
E4NNT.....	Jan.....	Nov 10
E4UKZ.....	J. L.....	Nov 10
W3DX.....	Rob.....	Nov 10
KD4NNL.....	Mike.....	Nov 12
KA0JG.....	Joe.....	Nov 13
WD4AYS.....	Carter.....	Nov 15
N4WJQ.....	Sam.....	Nov 18
N2YDW.....	Al.....	Nov 23
KD4CUA.....	Mark.....	Nov 24
W4LNT.....	Clay.....	Nov 28
KF4MEF.....	Nancy.....	Nov 29

Congratulations:**Upgrade:**

- Gary Beasley (KF4WNN) - first to General and a week later to Advanced.

New Call:

- Klaus Kudielka (KG4AKD) Technician

DID YOU KNOW?

The AARC cross-band 440 frequencies are 446.05, 446.10, and 446.15. All should use a 100 Hz tone.

MOBILE WATCH, ETC.

We will be having Lee Catlin and Sgt. Richard Martin of the Albemarle County Police as guest speakers sometime after the annual club dinner. In speaking to Lee, she wanted me to let all of the club members become aware of a Mw program the Albemarle County Police is instituting. It is a voice mail number for reporting street violations, such as tossing trash out of a car or truck onto the street. If you see this kind of activity, they request that you call 972-4145 and report the date and time, the location and, if possible, the make and license plate of the vehicle. The Albemarle County Police will then send the violator a note telling them that their action is against the law, and that any further violations will be prosecuted.

This is a good chance to help keep our streets a lot cleaner than they are now. Please help.
Rick, KO4WQ
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Basics: OHM'S LAW, YEAH STILL
Joe Giovanelli, W2PVY

Believe it or not, we have learned some very important concepts in electronics, and it was painless! Well, I thought it was anyway.

We have been learning about what has for years been referred to as "Ohm's Law." This dus to honor George Simon Ohm, who was the first to understand the working relationship among the terms "ohms," amperes," and "volts."

If you're like me, you must be asking why we care about this. We can't work a repeater with this simple circuit. What is the practical reason that we should care about current and voltage acting on a resistor?

Have you used a toaster, hair drier, base-board heater? I could have added many appliances to this list. What do all of these devices have in common?

If you noticed that all of them produce heat, you are right. Pushing current through a resistor will raise the temperature of that resistor. The rise depends upon the current flowing through it.

You can prove all of this in an almost practical way. Lightly rub your hands together rapidly. OK. Now I want you to press your hands together quite a bit as you rub them. Now I want you to really press them, hard as you can. Rub them some more. What happened?

Did you feel the heat as the "power" you used to maintain the motion kept increasing. We can say that the resistance of your skin to being rubbed increased, so it took more "power" to make your hands move against each other. We see that, in order to maintain this force as the resistance increases, more force is needed and more heat is generated.

It is no different in electrical circuits. If we wish to maintain a constant amount of current flow in a high value resistance over that flowing in a resistance having a lower value (in ohms), we must increase the voltage. Current is maintained, and the resistor begins to become hotter.

What I'm saying is that it takes both voltage and current to heat the resistor. This is "power." Power is measured in a quantity called Watts, in honor of James Watt, the inventor of the steam engine. To determine the amount of watts present in our basic circuit, we simply multiply the voltage by the current.

Well, now I have to get off this path for a second to tell you that it's too much work for me to write down "resistance," Voltage," "current," and "watts." As it happens, I really don't have to write all of this. I believe Mr. Ohm was the one who got me out of that predicament when he assigned a single letter to stand for each of the terms we have been talking about for the last few months. We use "E" to stand for volts. NO, I don't know why it wasn't "V" except that voltage is often called "electromotive force," as I believe we said in our first installment. So the E does

make sense after all. The letter used for current (amperes) is "I." I don't have a clue how they came up with that one! Resistance is denoted by the letter "R." At last, something that makes sense. Power (watts) is expressed by the letter "P," which sounds good to me.

Our new math formula for power can be written: $P = E \cdot I$. Our formula for determining voltage (when the current and resistance are both known) is $E = I \cdot R$. Current is determined by the formula $I = E/R$. Resistance is determined by the expression $R = E/I$.

Home work! Go back to last month's article on Ohm's Law and rewrite my problems and solve them using our new, shortcut system.

Next time you go to OCB (Old Country Buffet) or to the AARC meeting, spout off some of this "stuff" and everybody will know you're doing some serious work in electronics.

After all this time and study, we are ready to tackle a practical power problem. I want to know how much power my toaster uses. I know that my house voltage is 120 volts and I know the resistance of the toaster heating element, 19.73 ohms. What power will be use when toasting? What formula will you use to figure it out?

What did you say? "You didn't give me any!" Yes I DID, and its right in front of you.

$W = E \cdot I$, but it does not seem to work here because we don't know the current. We do know the resistance, however. We also know that current can be determined when we know the resistance by dividing E by R. Substituting numbers for letters we know that in this case E is 120 volts and R is 19.73 ohms. So we divide 120 by 19.73 and we come up with a current of 6.08 amperes. Now we can use our $W = E \cdot I$ or $W = 120 \cdot 6.08$ and we get 729.85 watts.

If you look at all of this a bit more, you will see that we didn't have to solve this for current first and then obtain the power. We could have done it in just a single step. If current equals E/R, then why shouldn't I rewrite our power formula to read $W = E \cdot E/R$? Does that make sense? Please say it does. In fact, we could simply have said that $W = E^2/R$.

Using the same approach, can you see where we can figure out power when we only know the current and the resistance, but we do not know the voltage? It's done along the same lines we just used to work around our lack of knowledge of the amount of current flowing in our circuit.

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A WWW web page was set up to disseminate the information to all interested parties. [This can be accessed via the AARC web site.]

One of the most promising developments so far is a pager was heard slightly above the input of the .76 repeater, but it did not seem to be causing problems. Recently the gremlin has gotten worse and pager noise has been heard below the .76 repeater's input frequency.

We are going to concentrate on identifying the pagers in the area and then try to link them to the noise. This approach should work well under the current conditions.

• .76 repeater output final dies

The final power amplifier for the 146.76 repeater died. The repeater is currently running on the driver and putting out about 15 watts. The coverage seems to be just as good and has the side benefit of encouraging people to use more power to get into the repeater. We have not received any complaints about the coverage of the repeater related to its power out. The amplifier will be repaired and reinstalled.

• New antenna for .76 repeater

At one point in the discussions of the gremlin, suggestions were made that the antenna may have corroded joints causing some of the inter-mod problems. VSWR and field strength measurements on the antenna indicated that electrically the antenna was working fine.

Despite the measurements, we purchased a new antenna in case the antenna was defective. (An Anonymous donor donated cash to cover the cost of the new antenna.) The new antenna's performance should be identical to the old antenna.

Several people report that the new antenna coverage is much better in the valley than before. The change in coverage could be attributed to corrosion discovered on the mount for the radials of the old antenna. Testing to the south and east indicates that the repeater can be heard the same distance away as the old antenna. The gremlin limits the distance people can work the repeater to about 1/2 to 2/3rds its normal distance.

The old antenna will be cleaned up and sold to Scottsville emergency services. The money will be placed in the repeater fund.

Mike Duvall, AC4ZQ
Technical Committee Chairman

Albemarle Amateur Radio Club Publications Committee Report

During the year Eileen (WD9EIA) and Paul (WB9HGZ) Dean, the editors of the "AARC Bulletin" indicated a need to relinquish that duty. It was assumed by Joe Fritz (KD4RWX) and continues under his leadership. The AARC Bulletin is published monthly and distributed to the household of each AARC member. In addition copies are distributed to selected ARRL leaders and to several local organizations who work closely with the AARC regarding emergency operations.

A new AARC Directory was published and distributed in September. It was distributed to current AARC members and those who had not renewed from 1997. This was done due to a delay in getting the 1997 issue out.

A new Phone Tree was produced for the ARES Emergency Coordinator. It was distributed via the newsletter.

As mentioned in the Publicity Committee's report, the Publication Committee was assigned the responsibility of taking over and updating the AARC Web Page, initially done by Sam Gentry (N4WJQ). Sam permitted us to utilize his work as we desired. Joe Fritz (KD4RWX) accepted the role of Webmaster and almost completely developed a new set of web

pages. This web site is located on space provided by Joe on his AOL account at no charge to the AARC.

The URL address is <http://members.aol.com/wa4tfz/aarc/>
This will currently take you to another portion of AOL called hometown.aol.com. There is NO need to use the new address. However, by using this new space, I will gain 10 Meg of new space in December. Then, I can place more of the pictures which I have been supplied by members of the Club.

These web pages are currently being revised for better and more efficient navigation.

Several Public Service certificates and other certificates were produced by this committee. Including, certificates for the Dogwood Festival's Special Event QSL contacts.

Joe Fritz (KD4RWX), Chair

Other Members:

Nancy (KF4MEF),

Ed (KF4UTD) (photo contributor)

Marlene, KF4APO (available if called)

Albemarle Amateur Radio Club Publicity Committee Report

During 1998, the Publicity Committee provided the general public with information on club meetings and activities. Listed below are the forms of community service announcements and club participation events promoted by the Publicity Committee during 1998.

- (1) Monthly announcements in club newsletter.
- (2) Announcements of monthly club meetings in *The Observer*.*
- (3) Announcements of monthly club meetings in the *Daily Progress*.*
- (4) Continuous public service announcement on Adelphia Cable, Channel 10.
- (5) Two day announcement of Field Day on the Crestar Bank marquee at corner of Route 29 and Rio Road.
- (6) Field Day announcements mailed to local media.
- (7) Post cards promoting Field Day mailed to approximately 150 inactive/nonmember licensed Amateur Radio operators in the local area. Postcards and flyers were also mailed to local and state government officials and local police/fire departments inviting personnel to attend Field Day. Governor Gilmore received a special letter of invitation written by Ernie Sardi, W2EIU.

(8) Information Table set up at Field Day, providing information brochures regarding amateur radio in general and the Albemarle Amateur Radio Club.

(9) Announcements in the *The Observer*, *Daily Progress* regarding spring classes. Bill Bearden, KC4TQF, provided information to local media for the fall classes.

(10) Information Table set up at the *You've Got A Friend Day* on Saturday, August 29, 1998. The event includes demonstrations, activities and a parade of local/state law enforcement and public service organizations. Contact person: Barry McLean

(11) The web page was reformatted under the direction of webmaster, Joe Fritz (KD4RWX). The web page has links on Monticello Avenue - a locally supported community internet site. Monticello Avenue provides access to many local organizations. They also permitted a link for the AARC's Field Day web page.

(12) It is suggested that the AARC investigate the possibility of participation in the Albemarle County Fair through either an Information Table or the scheduling of a special event station during the Fair week.

(13) During 1999, the Publicity Committee will make a proposal to the AARC board to design and purchase a Club patch. Designs are currently being developed.

*Due to the format of public service announcements

and the date of weekly publications, the club monthly meeting announcements were included as space was available and at the discretion of the newspapers.

Nancy Holliday (KF4MEF), Chair
Assistant:: Joe (KD4RWX)

Youth Net

My suggestion for the Youth Net is to have someone young and enthusiastic in their radio involvement. The leader also needs to have less going on in their lives so they can be more focus on the net. Someone with a closer connection to our youth would be the best choice for the adult leadership.
Jessie (KE4OID)

Food Refreshment Coordinator

It's a lot of fun planning the food for Field Day and the Picnic. It is also a headache because so many people either don't or won't sign up in advance. Yet, it seems to always work out since there are so many wonderful supporting members in the club. You can always find someone to bring or make something in particular - you just need to ask. The most frustrating thing is not knowing what some people are able to make, bring or purchase. The best suggestions I can make are to keep it simple, expect more people to come than you originally planned on, and be open to surprises. Make each eating event an opportunity to socialize and be somewhat relaxed. If you are having a good time, others will also.

As for the meeting refreshments. The club sends a check for \$20 to each person who signs up to bring refreshments. There is no financial excuse. If they want to go over on the cost, that is their individual choice. It is sad that there are only a few who sign up to participate, but there are many who partake. Keep track of who signs up and make sure other "receive the opportunity."
Jessie Preston (KE4OID)

The Fund Raising Committee points to an amount of \$1416 put in the Treasury this year from the sale of items donated by Sperry Marine, and fixed up and sold by Ron Richey for the Club. While it was planned to put together Emergency Kits and sell them to and through the Club, those plans didn't reach fruition this year.

Respectfully submitted, E. J. Bearden - KD4IGX

EDUCATION COMMITTEE REPORT

The Education Committee is currently holding a Novice-Technician Class at CATEC. Another class will be offered in January.

Adjustments to the course content will be made, if the license restructuring changes require it to be done.
Respectfully submitted, Ann Condrey (W0ANN)

EXAMINATION SITES

- 10/18/98 Charles L Beard AD4ST 804-832-7651 VEC: ARRL/VEC Lynchburg, VA 24502
- 10/18/98 Terrance V Vlug 540-890-6782 VEC: ARRL/VEC Roanoke, VA 24016
- 11/07/98 Anthony Amato 804-717-5237 VEC: W5YI-VEC Chester, VA 23831
- 11/08/98 Judy Friel AC4RG 540-297-5351 VEC: ARRL/VEC Bedford, VA 24523
- 09-Nov-1998 ANTHONY AMATO (804)717-5237 VEC: W5YI VEC CHESTER, VA 23831
- 11/15/98 Charles L Beard AD4ST 804-832-7651 VEC: ARRL/VEC Lynchburg, VA 24502
- 11/15/98 Terrance V Vlug 540-890-6782 VEC: ARRL/VEC Roanoke, VA 24016
- 12/05/98 John T Berry, AF4CY 540-543-2580 VEC: ARRL/VEC Culpeper, VA 22701
- 12/06/98 Charles L Beard AD4ST 804-832-7651 VEC: ARRL/VEC Lynchburg, VA 24502
- 07-Dec-1998 TONY AMATO (804)717-5237 CHESTER, VA 23831
- 12-Dec-1998 PAT WILSON (804)932-9424 RICHMOND, VA 23
- 12/19/98 Buck Mowbray N3RIQ 540-289-9790 VEC: ARRL/VEC Harrisonburg, VA 22801

SOME TERMS RELATED TO SOLAR ACTIVITY

With thanks to the Space Environment Center, here are some definitions of some of the relevant buzzwords:

A Index. A 3-hourly "equivalent amplitude" index of local geomagnetic activity; "A" is related to the 3-hourly K-INDEX according to the following scale:

K	0	1	2	3	4	5	6	7	8	9
A	0	3	7	15	27	48	80	140	240	??

Term Definition

A Index A daily index of geomagnetic activity derived as the average of the eight 3-hourly a indices.

Geomagnetic Storm A worldwide disturbance of the earth's magnetic field, distinct from regular diurnal variations.

Minor Geomagnetic Storm A storm for which the Ap index was greater than 29 and less than 50.

Major Geomagnetic Storm A storm for which the Ap index was greater than 49 and less than 100.

Severe Geomagnetic Storm A storm for which the Ap index was 100 or more.

K Index A 3-hourly quasi-logarithmic local index of geomagnetic activity relative to an assumed quiet-day curve for the recording site. Range is from 0 to 9. The K index measures the deviation of the most disturbed horizontal component.

Kp Index A 3-hourly planetary geomagnetic index of activity generated in Gottingen, Germany, based on the K INDEX from 12 or 13 stations distributed around the world, or number of solar active events.

Solar Maximum The month(s) during the SOLAR CYCLE when the 12-month mean of monthly average SUNSPOT NUMBERS reaches a maximum. The most recent solar maximum occurred in July 1989.

Solar Minimum The month(s) during the SOLAR CYCLE when the 12-month mean of monthly average SUNSPOT NUMBERS reaches a minimum. The most recent minimum occurred in September 1986 (until maybe this August 1997???)

Sudden Ionospheric Disturbance (SID)
HF propagation anomalies due to ionospheric changes resulting from solar FLARES, PROTON EVENTS and GEOMAGNETIC STORMS.

Sunspot An area seen as a dark spot on the PHOTOSPHERE of the sun. Sunspots are concentrations of magnetic flux, typically occurring in bipolar clusters or groups. They appear dark because they are cooler than the surrounding photosphere.

Sunspot Number A daily index of SUNSPOT activity (R), defined as $R = k(10g + s)$ where S = number of individual spots, g = number of sunspot groups, and k is an observatory factor.

HAMFESTS

January 17
Richmond Amateur Telecommunications Society, Richmond, VA
Jim Clark, N3JJF
PO Box 14828, Richmond, VA 23221-0828
804-739-2269 (Ext. 3378)
<http://frostfest.rats.net>

February 28
Vienna Wireless Society, Annadale, VA
Mike Toia, K3MT
PO Box 418, Vienna, VA 22183
703-757-5021
E-mail: k3mt@erols.com
<http://www.erols.com/k3mt/vws>

April 11
+ Raleigh ARS, Raleigh, NC
Wilbur Goss, WD4RDT
4425 Watkins Rd., Raleigh, NC 27616
919-266-7883
E-mail: k4hf@juno.com

ARRL CONTESTS

November
7-9 ARRL November Sweepstakes, CW
21-23 ARRL November Sweepstakes, phone
December
4-6 ARRL 160-Meter Contest
12-13 ARRL 10-Meter Contest

AARC CLASSIFIED ADS

New ADS may be sent directly to the Editor: 804-973-1738 or kd4rwx@aol.com

Also: Submissions to the Thursday Night Swap Net will be included here if the Editor has received the information.

----- LISTINGS -----
** UPDATED 10/30/1998 **

FOR SALE: 10-M BEAM ANTENNA 10/29/98
Dave, K4DND, has for sale a Cushcraft Model 10-3, 10 meter 3 element beam. Call him at 804-973-5866.

FOR SALE: TENTE SCOUT HF 10/29/98
Dave, K4DND, has for sale a Tentec Scout hf rig w/modules for 10,20,40,80 meters, including paddle, tuner, desk & hand mike. Call him at 804-973-5866.

FOR SALE: SCANNER 10/1/98
Rick, KO4WQ, has a Uniden Bearcat 30 channel, 10 band scanner for sale. Includes 10, 6, 2 meter and 70 cm bands. Battery & AC power. If interested please call Rick at 804-823-1128.

FOR SALE: MANY ITEMS 10/15/98
Kenwood TS830S HF XCVR
HI-GAIN TH-3 triband beam
Alliance HD73 rotor & control
Heath SB200 HF amplifier
Kenwood TR2500 2M handheld
Rohn 25G 50 foot tower
Other misc items - All items in good condition w/manuals
Dan Harrer 804-982-2322 (voice mail)
540-543-2434 home evenings (Madison)

FOR SALE: COMPUTER 10/22/98
Joe, W2PVY, would like to sell an IBM Aptiva computer with 48 Meg RAM, 4 Gig hard drive, 24X CD ROM, Pentium 266 MHz processor for \$600, less monitor. If you are interested, please call him at 804-589-1495.

FOR SALE: 2 METER AND 450 MHZ HANDHELDS 10/22/98
Joe, W2PVY, would like to sell or trade two handheld transceivers. One Kenwood TR2500 2 meter and one TR3500 450 MHz, each with speaker mike. Call him at 804-589-1495 if you are interested.

FOR SALE 10/22/98
Bob, KB4YQC, Yaseu FT767GX HF transceiver plus 2-m 6-m & 70-cm modules, extra 2-m & 70 cm modules, desk and hand mike, RS232 CAT interface, matching SP767 external speaker with switchable filters. All cables, owners & repair manuals 293-9720

FOR SALE: SIGNAL GENERATORS 7/30/98
Several RF signal generators, variety of prices and quality/stability. Call Ron, K4RKA, at 973-3640 or call on the 146.925 repeater.

FOR SALE: RF AMPLIFIER 7/30/98
Rick, KO4WQ, would like to sell an RF concepts 2-m and 450 mhz amplifier. Call him at 804-823-1128 if you are interested.

FOR SALE: 32 FOOT TOWER 8/27/98
Grayson, KF4FYI, has for sale a 32 foot tower. \$125.00 Will make modifications before sale such as section connectors, repaint etc. Will consider installing for a small fee. This tower is set up for smaller antenna's. 10 meters and up. If interested call Grayson at 293-4885 or e-mail to kf4fyi@cstone.net

TUBE BANK

I am starting tube bank for those Hams who still have tube model radios of any type who may need tubes in the future. Any tubes you may have lying around please donate to the tube bank. (receiving or transmitter tubes) Contact Grayson (kf4fyi) or bring tubes to monthly meetings.

This is a benefit to all Hams as tubes will be free or swapped for other tubes. Contact me (Grayson) for further information....

FOR YOUNG HAM: ANTENNA 9/3/98
Tom, W4AVO, is offering a G5RV HF antenna plus a 40 meter dipole to any young ham who is HF capable and is willing to take it down. To take advantage of this good deal, contact Tom at 971-9686.

WANTED: TNC 9/24/98
John, WA4IUN, is looking for a TNC which is capable of running PACTOR. Acceptable brands include Kantronics and MFJ. Call him at 804-296-9016.

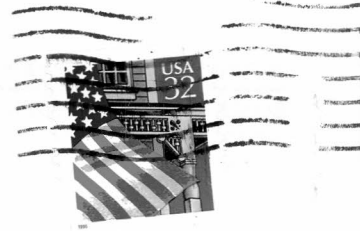
PUBLIC SERVICE EVENTS 1998

Saturday, November 7th

Montpelier Horse Race

Please sign up. You can send an email to Greg (N4PGS) Greg (N4PGS) and (Hein N4FWA)

Albemarle Amateur Radio Club
P.O. Box 6833
Charlottesville, Virginia 22906



<http://members.aol.com/wa4tfz/aarc/>

AARC BULLETIN

Vol 1998 No. 11
NOVEMBER 1998

A LOOK AHEAD:

November:

T-Hunt on Sunday, the 23rd
Thanksgiving on Thursday the 26th

January:

Winter Dinner
Frostfest on the 17th

April:

Possible Thomas Jefferson Special Event
Dogwood Parade

TO CORRECT LABEL INFORMATION CALL PHONE 973-1738: Your License expires... Oct 31, 2004 D Y A
KA4JJD G 1998 CURRENT MEMBER

Michael F. Rein
109 Sturbridge Rd.
Charlottesville VA 22901

CLUB MEETINGS

Regular Meeting: Second Tuesday of each month at 7:30 p.m.
Board and Technical Meetings: First Tuesday of each month at 7:30 p.m.
Meetings are held at the National Radio Astronomy Observatory (NRAO) building, Edgemont Road (UVA area)

WA4TFZ REPEATERS

146.160/146.760.....	88.5 Hz
(If tone is enabled, you can turn the tone off and back on temporarily by:	
Temporary Tone OFF.....	DTMF 325*
Remove Temporary Tone Off.....	DTMF 326*
Door alarm off.....	DTMF 100*
Autopatch to access 911 Center.....	DTMF 911*
Emergency Autopatch to access VA State Police.....	DTMF 918*
Autopatch exit.....	DTMF 0*
Time.....	DTMF 10*
Tone status of repeater.....	DTMF 700*
146.325/146.925.....	88.5 Hz if enabled
223.160/224.760.....	no tone
449.250/444.250.....	151.4 Hz (If enabled)
145.030 MACHO node	
145.030 CHO Packet Bulletin Board	

LOCAL NETS: (146.760 repeater)

Monday night: Information Net (each Monday) 7 PM
YL Net (1st Monday of month) 8:30 PM

Thursday night: Northern Piedmont Emergency Net & Swap Net & Technical Session (each Thursday) 8 PM

LUNCHEON:

Wednesday: Area Hams gather at the Old Country Buffet (OCB) next to TOYS R US on 29 North 11 AM - 1 PM

ALBEMARLE AMATEUR RADIO CLUB 1998 - OFFICERS & BOARD MEMBERS

President	Bill Bearden	KC4TQF
Vice President	Chuck Mills	W4SM
Treasurer	Sharon Duvall	KO4OC
Secretary	Joe Fritz	KD4RWX
Director	Dave Damon	K4DND
Director	Greg Faust	N4PGS
Director	Hein Hvatum	N4FWA
Director	Jessie Preston	KE4OID
Director	Ernie Sardi	W2EIU

COMMITTEE LEADERS

Committee	Chairperson	
Fund-Raising	E.J. Bearden	KD4IGX
Technical	Mike Duvall	AC4ZQ
Publications	Joe Fritz	KD4RWX
Education	Ann Condrey	W0ANN
Activities	Hein Hvatum	N4FWA
Youth	Brian Meadowcroft	KF4FRP
Awards	Joe Fritz	KD4RWX

OTHER POSITIONS

ARRL Liaison	Bob Pattison, K4DU
ARES/RACES Coord.	Dave Damon, K4DND
ARRL VE Coordinator	John Gray, W6UZ
Trustee (WA4TFZ)	Morris Jones, NM4R
Newsletter Editor	Joe Fritz, KD4RWX

AARC BULLETIN

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Albemarle Amateur Radio Club
P. O. Box 6833 Charlottesville, VA 22906
804 973-1738
wa4tfz@aol.com
<http://members.aol.com/wa4tfz/aarc/>

SPECIAL NOTICE

A T-HUNT IS COMING

Joe and Nancy will conduct one on

Sunday, November 22, at 1:00 PM

The hidden transmitter will be located within 10 miles of downtown Charlottesville. Some special prizes will be awarded the first five persons/teams to locate us. We will make the first contact on the repeater. It will feature a special winner's reward to pay honor to Bill's famous "Turkey Hunt" of yesteryear.

Bill's only success at T-hunting was when he found the transmitter after giving up and he just happened to drive by the hidden location on his way home. Still, Bill has been a great supporter of our T-Hunts. Now, that he is a lame-duck President, we need to do something to show him our appreciation for his service as our fearless leader.

DEADLINE FOR EACH ISSUE

The 23rd of each month
Contact Information

In The Fritz Publications
Joseph D. Fritz, KD4RWX
2306 Williamsburg Road
Charlottesville, VA 22901
804 973-1738
kd4rwx@aol.com