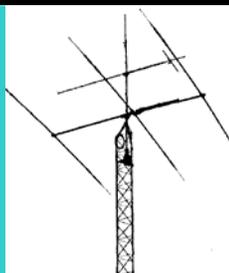


The AARC Beacon



*Serving radio enthusiasts
and communities in
Central Virginia –
The Radio Club for
Central Virginia*

Volume 2008, No. 2



February 2008

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Meeting Notice

The next regular AARC meeting will be held on **February 12th** at 7:30 PM at the NRAO building on the UVA campus. Our presentation will be by Gordon Winn, **WW4GW**, on how **WWVB** works.

It should be very interesting. See you there!!

Dues are Due!!!

2008 membership dues are now due. Please make payment to the AARC Secretary. **There is no increase since last year.** Club members who are renewing membership please use the short form. **Checks are requested.**

Club Property Inventory

All AARC members having club property in their possession are requested to provide an inventory list to the club Secretary. Please describe item(s) and location. **A complete club property inventory is being made. Your cooperation is requested!!!!**

The President's Letter

Dave, K4DND

Hello --- and I hope everyone enjoys FrostFest, Lunar New Year, Valentines Day and all those other - end of the winter, look forward to springtime – festivities. I have been rummaging around the shack putting together a pile of things to go on the AARC table at FrostFest. You know the kind of the stuff I am talking about, things I haven't used in a very long time. Every time I see them, my first inclination is to jettison them, but as soon as they actually go on the FrostFest pile.... I can think of several reasons that I will surely need all of them, and almost immediately!! You know what I am talking about?

Well, on to matters of more substance. I just finished working on a small project for one of our club members. Not that I have any special expertise in this area, it is just that I have an optics system that I can use to compensate for my increasingly poor eyesight. Along this line, we have several senior members of the club, who would like to attend the meetings, but should not or cannot drive at night. I think **it would be great if we had a designated pool of club volunteers that could help get people with transportation needs to the meetings and home again.** If you are interested in providing this important service, or if you are interesting in using this service, please contact me, I will do whatever I can to get those with needs, matched up with those who have the capability.

I recommend you go to www.wxspots.com and download the **software for Wxspots Log.** This is software that comes from Scott Davis N3JFP, but you don't have to be a licensed ham to use it (more on this later). Some of you have used Scott's software during past Field Days, for networked logging from multiple computers. What Scott has done is to create a server system for logging weather related reports from registered users, along with group-specific Instant Messaging that is only displayed to members of the group. When you download the software and run it the first time, you will be prompted to set up your account. Most amateurs use their call sign as their account logon ID. In addition you will be asked for your name, PO and email addresses, as well as your location. In my case I am using VA, Albemarle County, and 12 m NNE of Charlottesville for my current location.

When you run the program, you will connect to the Wxspot server, and can download a list of currently connected users, WX reports from variable time periods, as well as send messages to and receive messages from other members of your designated groups. To see this, just pull down the "Observers" menu, and select "Send Messages" then check to see that VA ALBEMARLE is in the list. If it isn't, add it. I would like to set up a test of this system with our local ECC (Emergency Communications Center, the 911 Center) in the near future (and more on this later).

What's the point, you may well ask? Well, let me try and work through some of the twists and turns. First, we have the issue of getting our Skywarn reports into our NWS (National Weather Service) office. This is compounded by the fact that we sit at the nexus of three different NSW office jurisdictions. Albemarle County is part of the Sterling NWS area, the office of which is located on the grounds of Dulles Airport. Counties below Nelson are allied with the Blacksburg NWS office located near VA Tech. And Fluvanna County lies in the Wakefield NWS coverage area. Buckingham/Cumberland are also in the Wakefield area?? (Gordon, please correct me if I am wrong). So any Skywarn report from this area may need to be routed to any one of the three NWS offices. Then, don't forget, that each NWS office has a Doppler radar facility located near its office that

covers its own area of service as well as overlapping into adjacent service areas. As you move further and further away from the radar site, the radar returns information about events and conditions that are taking place higher and higher in the atmosphere. Consequently, when you get out to the limits of the particular NWS office and at the confluence of three offices as we are in this area, each office gains little useful information about conditions on the ground from their radar signal high overhead. That is why Skywarn spotter reports are so important to the NWS.

The second issue is that there is no coordination or uniformity between ham and non-ham Skywarn reports. We believe that the preferred method for getting reports to the individual NWS offices from Amateur Radio spotters utilizes Amateur Radio. Blacksburg might be able to get reports from the KI4ZR Lexington 147.330 repeater, and Sterling was able to get reports via the N8HON 444.400 repeater on Fork Mt. when it was operating. Perhaps Wakefield could get some information over the Williamsburg KB4ZIN 146.760 repeater. When these routes fail or are marginal, then phone calls, internet reports, or APRS reports are the only way to get information to the appropriate destination. Wxspots Log is a big step in getting uniform reporting between the ham and non-ham world, as well as letting each Skywarn spotter see other spotter reports.

The third issue is that even if a Skywarn spotter system is well-manned and working perfectly, in its present form, it only provides information to the NWS offices. While it is capable of providing crucial information useful to local emergency management, the local jurisdiction EM staff is being completely bypassed. The Wxspot Log system addresses this deficiency as well.

A couple of weeks ago, Gordon WW4GW and I participated in a test of Wxspot Log run from the Blacksburg NWS office. Many amateurs participated from as far north as Albemarle County, and as far down through the SW part of the Section as you can go (further than I would want to go). It seemed to be successful, and was judged of value by the NWS staff observers. I am interested in conducting a local test involving the Albemarle/Charlottesville/UVA ECC (Emergency Communications Center) and so contacted the Sterling office to see if they would send me a list of the Skywarn spotters registered in Albemarle and Greene Counties. They will not release that information, but are happy to forward an email to those spotters. I will get something out to local spotters, particularly the non-hams, in the very near future so that we can conduct our own local test. Sterling has expressed an interest in our test and may play along as well.

My apologies for going on in such detail about this, but I think it is not just important and interesting; it is another opportunity to provide valuable public service. In addition it may help to bridge the gap between the ham and non-ham world, and in doing so may develop some interest in our

hobby among our non-ham friends and neighbors. Listen for more information on upcoming NPEN sessions.

73 de K4DND

Veep Peeps

Mike, K14RIX

Dear Friends --- January was an exciting month for the Albemarle Amateur Radio Club. We had our club dinner at the Elk's Lodge this year, and many of you came out and seemed to enjoy it. We are looking at having next year's dinner at the Elk's Lodge again – if you feel strongly about this, please let me know your thoughts. February is now upon us, and that means FrostFest. By the time you read this, FrostFest will have already passed. However, I hope you had a wonderful experience there and learned something new as well.

We've been hard at work scheduling exciting presentations for you this year. **Our first presentation of the year will be at the February meeting. Our very own Gordon Winn, WW4GW, will be discussing how WWVB works.**

For those who don't know, WWVB is a very low frequency signal at 60 kHz that broadcasts the time for all of those "atomic clocks" that you see at the store. Expect to learn a lot about this.

March will bring us a talk about lighting and grounding just in time for spring and summer storms. Alan Swinger, K9MBQ, will make sure you know how to keep your rig safe from Mother Nature's number one electronics killer.

And **in April, we will be hosting two gentlemen from the Roanoke area to discuss amateur microwave activity.** Geep Howell, WA4RTS, and Brian Justin, WA1ZMS, have extensive experience in the microwave world and have built various radios that work from 900 MHz through 300 GHz, and have set a number of records for communications above 50 GHz. This should prove to be a very exciting lecture.

I hope you are as excited about these presentations as I am. We are still looking for ideas and presenters for the rest of the year, so if you'd like to come in and talk, I'd love to hear from you.

Best regards,

Mike Benonis K14RIX

AARC Winter Dinner Meeting

Tnx Dave K4DND for photos

The 2008 annual AARC Winter Dinner was held January 13 at the Elk's Lodge near Pantops. This was our first time there and I believe everyone enjoyed it thoroughly. Judge for yourself from this small montage of photos ...



Eyeball QSO's with old friends! Tim KG4HOT and his XYL, Dennis, K4THE and many others



Linda, K15LLB and Steph, K4BMM are the caretakers of the raffle tickets



Everyone is all ears listening to our President and VP



Everyone enjoys the great buffet dinner ...



Everyone checks out the great raffle prizes --- Joe W2PVY and his lady friend, Stan K2SSB and his XYL, Linda KI5LLB and Steph K4BMM

Club Business

Submitted by: Marty Mait AG4DN, Secretary

AARC Board Minutes January 13, 2008

No board meeting this date.

Submitted by: Alan Swinger K9MBQ, Secretary

Regular Meeting January 13,, 2008

The first AARC meeting of 2008 was convened by the new club President, Dave Damon K4DND, at approximately 5:30 PM on 13 January 2008 at the Elk's Lodge in Charlottesville, VA. The primary purpose of the meeting was to host the annual club holiday social and dinner. Minutes of the Dec 2007 meeting were not read in view of the social nature of this meeting and will be presented at the February meeting for membership approval. Meeting events are described in subsequent paragraphs.

Dave Damon began the meeting by reviewing 2008 objectives which are shown in detail in the Jan 2008 Beacon, and are listed in summary form as follows:

- Training of entry level new Hams to include internet assets, ARRL and other publications, and an Elmer program
- Continuing Education
- Youth membership increase.

He then introduced the newly elected officers: VP - Mike Benonis KI4RIX; Treasurer – Don Eason N4UVA; Secretary – Alan Swinger K9MBQ, followed by an introduction of the new Board members and their respective committees:

- Dennis Mennerich K4THE – Education
- Linda Beard K5LLB – Fund Raising
- Jay Rostow K4AZV – Activities
- Josh Malone KG4NGV – Publicity
- Gordon Winn WW4GW – Technical

Mike KI4RIX mentioned to all his plans for guest presentations at the completion of our club meetings in the coming year. Among those scheduled are presentations on Microwave applications and station grounding and lightning protection. Watch the Beacon for schedule details.

The last item of business was to present certificates/awards to the many deserving club members for services rendered. They are as follows:

- a. **Life Members** – continuous Full Membership for a minimum of 8 yrs or Associate or Full for a total of 10 yrs of notable service

- John Gray W6UZ
- Hein Hvatum N4FWA
- Ron Richey K4RKA
- Harry Dannals W2HD
- Joe Giovanelli W2PVY

b. Certificates for outgoing Executive Committee members

- Jay Rostow K4AZV – President
- John Turchi KI4DJT – VP
- Marty Mait AG4DN – Secretary
- Bob Pattison K4DU – Treasurer

c. Certificates of recognition for other club duties, responsibilities and outside club activities

- Bob Pattison K4DU – Trustee
- Bob Dorsey W4RQ – Beacon Editor
- Gordon Winn WW4GW – VE Coordinator, WW4GW Repeater maintenance, and EC for Buckingham/Cumberland counties
- Joe Giovanelli W2PVY – Net Newline and Technical Session leader
- Harry Dannals W2HD – Monday Night Info Net Controller
- Ron Richey K4RKA – Swap Session and SERA
- Josh Malone KG4NGV – Web Site support and NRAO interface/liaison
- Cayman Brownfield KG4OVD – Web Support and ECHOLink maintenance
- Linda Beard KI5LLB – Public Service
- Tim Miller KG4HOT – Tech Committee and KG4HOT 220MHZ Repeater
- Bill Phillips AD6JV – Public Service Coordinator and NM NPEN, EC for Charlottesville/Albemarle UVA
- Vic Vickery N3DFS – EC for Greene Cty
- Manny Rodriguez K4MSR – EC for Fluvanna Cty
- Steve Dobmeier KG4ZWH – Control Operator of K4UVH
- Greg Mika KI4PXU – Control Operator of N4MJH
- Elmer Scott KF4UCI – APRS and Packet node support; KF4UCI 440MHZ Repeater

- Steph Rostow K4BMM – Invaluable assistance to K4AZV during his 3 yr club presidency.

The formal meeting adjourned at approximately 6 PM.

Following the meeting, an outstanding buffet dinner was served by the Elk's Lodge staff which included Roast Beef, Chicken and all fixings, along with a very nice Chocolate Cake desert. All attending seemed to enjoy the fare, but most notably, our younger (and growing) members were satisfied. During dinner numerous prizes were raffled off, the most significant of which was an ICOM IC-2200H 2M Transceiver. The lucky winner was Bob Dorsey W4RQ – Congratulations to Bob and the other winners. A good time was had by all and there was support for a similar event next year.

Submitted by: Alan Swinger K9MBQ, Secretary

ARRL Propagation de K7RA

AI, K9MBQ

Sunspots have returned. After nearly three weeks with nothing visible (January 9-28), sunspot group 982 emerged on January 29. The very quiet geomagnetic conditions of the past week may be ending with some moderate to unsettled activity. US Air Force predicts a planetary A index for February 1-6 at 12, 10, 15, 10, 8 and 5. The next active period could be around February 9-10, with a planetary A index of 15. The period of February 16-26 is likely to see no spots, and for February 27 through March 1 we may see sunspots reappear.

Geophysical Institute Prague predicts unsettled to active conditions for February 1-2, unsettled February 3-4, quiet to unsettled February 5, and quiet on February 6-7.

Last year we began calculating and tracking a 3-month moving average of daily sunspot numbers. This was done to try to spot trends. A three month period seemed like it might give us some smoothing of the often volatile daily numbers, but much shorter than the official 12-month smoothed values used to calculate the solar minimum some time after it actually occurs.

Now that January is done, we can calculate the 3-month moving average centered on December, 2007. The sum of all the daily sunspot numbers from November 1 through January 31 is 749, and divided by 92 days, this gives a 3-month average of 8.1.

Apr 06	38.5
May 06	39.7
Jun 06	28.9
Jul 06	23.3
Aug 06	23.5
Sep 06	21.2
Oct 06	24.1
Nov 06	23.1
Dec 06	27.3
Jan 07	22.7
Feb 07	18.5
Mar 07	11.2
Apr 07	12.2
May 07	15.8
Jun 07	18.7
Jul 07	15.4
Aug 07	10.2
Sep 07	5.4
Oct 07	3
Nov 07	6.9
Dec 07	8.1

A three-month moving average may be too short to spot the actual bottom of Cycle 23, but with the steady decline from 2006 until October 2007, and a 3-month average rising from 3 to 6.9 then 8.1 since then, this suggests a cycle minimum during the Fall of last year.

Four years ago in Propagation Forecast Bulletin ARLP005, for January 30, 2004 (see <http://www.arrrl.org/w1aw/prop/2004-arlp005.html>) N6QYS (now W6JP) wondered if Cycle 23 was near minimum, and if conditions would soon improve. I looked at the weekly Preliminary Report and Forecast, and the table of predicted smoothed sunspot numbers ended in December 2007. I could see that values were expected to be lower a year from then, in January 2005. Based on this, I wondered at the time if sunspot levels might return to the predicted January 2005 level in 2008, and promised to set an alarm in my PDA for four years into the future.

The actual average of daily sunspot numbers for January 2004 was 62.3, and January 2005 was 52. The following Januarys through this one had average sunspot numbers of 25.7, 28.2 and 5.1.

Based on the predicted smoothed sunspot table on page 8 at, <http://www.swpc.noaa.gov/weekly/pdf/prf1687.pdf>, it could be some time before we are back to the 2004 and 2005 levels.

So what is the difference those sunspot numbers make between 2004 and 2008? In 2004, the 20 meter path

from San Francisco to Japan should stay open 2130-0500z, with best signals toward the end of that period. But for tomorrow, that path would probably open between 2230-0030Z. 15 meters would open 2200-0200Z in 2004, but perhaps 2300-2330Z.

Similarly, Chicago to Germany in those days on 15 meters was probably open 1530-1830Z, but today not open at all. On 20 meters today the path would likely open 1530-1730Z, but in 2004 it was 1400-1900Z.

If you would like to make a comment or have a tip for our readers, email the author at, k7ra@arrrl.net.

For more information concerning radio propagation, see the ARRL Technical Information Service web page at, <http://www.arrrl.org/tis/info/propagation.html>. Monthly propagation charts between four USA regions and twelve overseas locations are at, <http://www.arrrl.org/qst/propcharts/>.

Sunspot numbers for January 24 through 30 were 0, 0, 0, 0, 13 and 14 with a mean of 3.9. 10.7 cm flux was 71.3, 71, 72.5, 72, 71.3, 71.6, and 72.7 with a mean of 71.8. Estimated planetary A indices were 5, 11, 5, 2, 2, 4 and 2 with a mean of 4.4. Estimated mid-latitude A indices were 3, 8, 6, 2, 2, 3 and 1, with a mean of 3.6.

Contest Highlights - Upcoming

Bob, W4RQ

ARRL-Sponsored Contests

Feb 16-17	ARRL DX Contest - CW
Feb 11-15	School Club Roundup

Complete info, rules and log forms for these events can be found online at the ARRL Contest Calendar webpage.

Other Contests of Interest

Feb 9-10	CQ WW WPX RTTY Contest
Feb 9-10	New Hampshire QSO Party
Feb 9-10	Louisiana QSO Party

The [SM3CER Contest Service - Contest Calendars](#) has info and rules for these contests and just about every contest that exists.

73, Bob W4RQ

AARC Public Service Schedule	
None Reported	

Area Hamfests	
February 2 Richmond	<p>Virginia State Convention (Frostfest) 2008 Sponsor: Richmond Amateur Telecommunications Society Location: Richmond Raceway Complex 600 East Laburnum Avenue http://www.frostfest.com Talk-In: 146.28/88 (PL 74.4) Contact: Lee Ann Horton, W4QCO Email: chair@frostfest.com</p>

FCC Database Updates	
New Calls	
None Reported	
Upgrades	
None Reported	
Vanity Calls	
None Reported	

VE Session Schedule - 2008	
Date Location (ARRL VEC)	For exam sessions in Virginia outside the AARC area, check the ARRL Exam Session Search web page.

For Sale Items	
Wanted – Tube Stereo	Wanted: tube stereo equipment, particularly Fisher. Carter, WD4AYS, (434) 979 7383, celliott14@earthlink.net

AARC Club Officers			
President	Dave Damon	K4DND	k4dnd@arrl.net (434) 973-5866
Vice President	Mike Benonis	KI4RIX	mjb8h@virginia.edu (703) 577-3788
Secretary	Alan Swinger	K9MBQ	awswinger@earthlink.net (434) 975-6237
Treasurer	Don Eason	N4UVA	deason@comcast.net (434) 973-9119
Director	Dennis Mennerich	K4THE	k4the@arrl.net (434) 973-5407
Director	Linda Beard	KI5LLB	lindaskyone@earthlink.net (434) 823-2107
Director	Jay Rostow	K4AZV	k4azv@turing.org 434-263-5795
Director	Bill Phillips	AD6JV	billp1048@earthlink.net 434 872-0686
Director			

Contest Calendars	
ARRL Contest Calendar 2008	ARRL sponsored contests
SM3CER Contest Service - Calendar 2008	Contests all over the world! Also has links to online rules for most contests
Contesting Online	Just about everything contests!

Albemarle Amateur Radio Club
 P.O. Box 6833
 Charlottesville, VA 22906
<http://www.albemarleradio.org/>



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ISSUE DEADLINE - 25th of each month

Contact Information
 Daniel R. (Bob) Dorsey, Jr. W4RQ
 PO Box 530
 Ruckersville, VA 22968-0530
 (434) 990-2659
W4RQ@yahoo.com

Next Club Meeting : February 12 - 7:30 PM NRAO Bldg - UVA Campus

CLUB MEETINGS and NETS

REGULAR Meeting: Second Tuesday of each month at 7:30 PM
BOARD & TECHNICAL Meetings: Prior to regular meeting at 6:30 PM
 Meetings are held at the NRAO building on Edgemont Road.
LUNCHEON: Wednesdays -- Area hams gather at the **Wood Grill Buffet** on Rte 29 North from 11 AM – 1 PM
Monday Night Information Net – Each Monday at 7:00 PM
Northern Piedmont Emergency Net / Swap Net / Technical Session: Each Thursday at 8:00 PM
All Nets are held on the 146.760 repeater

AREA REPEATERS

WA4TFZ

<u>INPUT/OUTPUT</u>	<u>Tone Access (If needed)</u>
146.160/146.760	151.4 Hz
146.325/146.925	151.4 Hz
223.160/224.760	No Tone
449.250/444.250	151.4 Hz

Other Area Repeaters

- 145.410 (-) 100 Hz Tone (if enabled) -- **AF4CY (Madison)**
- 442.075 (+) 151.4 Hz Tone - **KF4UCI**
- 145.17 (-) 151.4 Hz Tone - **W4FCO (Fluvanna)**
- 146.79 (-) 110.9 Hz Tone - **WW4GW (Buckingham)**
- 145.450 (-) 151.4 Hz Tone **K4DND (Martha Jefferson Hospital)**

AARC CALENDAR OF EVENTS

DATE	EVENT
February 12	Regular Club Meeting
March 11	Regular Club Meeting
April 8	Regular Club Meeting
May 13	Regular Club Meeting
June 10	Regular Club Meeting
July 8	Regular Club Meeting

AARC - PUBLIC SERVICE SCHEDULE

DATE	EVENT

Bill, AD6JV is the primary contact for Public Service events and Emergency Communications. Contact Bill for info on particular events.

Membership application available in PDF format at http://www.albemarleradio.org/members/AARC_member_application.pdf