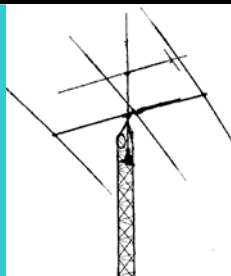


The AARC Beacon



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

Volume 2007, No. 2



February 2007

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Meeting Notice

The next regular AARC meeting will be held on **Tuesday, February 13 at 7:30 PM** at the **NRAO building on the UVA campus**. The program will be on **Emergency Communications**. See you there!!

Dues are Due!!

Secretary's Dream

I fell asleep the other night
 And while I had my snooze,
 I dreamed each member stepped right up
 And promptly paid their dues.
 And when I found 'twas but a dream
 I nearly threw a fit
 It's up to you to make it true

SUGGESTION: PLEASE REMIT!!!!!!

It is annual dues time again! There is NO increase in dues this year. Please mail or bring to next meeting.

Mni tnx! *Marty, AG4DN, Secretary*

The President's Letter

Jay, K4AZV

Well, it's that time again for another exciting issue of the Beacon, although there's not much exciting to tell from our corner. We did manage to make a few 6 meter contacts at the end of the wintertime 6 meter season. We made one contact on the 24th of December and then didn't hear another soul until the 8th of January when I worked a dozen stations in quick succession calling CQ. The farthest contact was in Phoenix, AZ - grid square DM33. Because of bad

weather I chickened out and decided not to climb the mountain in Greene County for VHF/UHF contest held at K4LTX's shack. However, the ones who did go made a hard push to beat last year's totals. There will most likely be another placing in the top ten.

The HF bands were a little more interesting with a few nice DXpeditions to work including a VP8 islands chain, a rare island in the Bahamas, Senegal, the Sovereign Military Order of Malta and Burkina Faso. I made my first contact to India and we worked Lakshadweep, The Gambia, Croatia, Falkland Islands, South Shetland Is, Peru, New Zealand and East Kiribati.

The repeater controller which Josh (KG4NGV) built has been installed at Martha Jefferson Hospital on the 444.250 repeater. It seems to be working flawlessly. The controller, which Dennis built, has been received and will be installed on the 146.925 repeater shortly.

Soon the HF bands will see an influx of the "DREADED no code tech" whose presence it has been said will end polite activity as we know it and will surely bring in a herd of CB'ers guaranteeing the demise of Ham radio forever. Now I must say that I don't believe any of this talk for a minute. I'm quite happy that the code requirement has been removed although not happy that it has been removed altogether. I do believe that we will see a large number of new people within a short period of time on the HF bands. We may find more frequent opportunity for some gentle elmering in order to continue the politeness and good character that we find in the amateur radio family. Let us enjoy this as part of our responsibility of being good Hams.

73 to all. See you next month ...

73, Jay K4AZV

Veep Peeps

John, KI4DJT

Dear Friends, first let me apologize for not getting my article out last month and being very late this month. I've been having computer problems for quite a while and borrowed this one from my kids. Besides having antique computers, I've been suffering with dial-up and it takes so much time I lose patience waiting so long and simply turn it off and do something else. I have bought a new computer and will get satellite high speed I hope this week.

The topic for discussion at the meeting will be a presentation from AD6JV on emergency communication. Bill is going to get the EC's from surrounding counties to participate also. I hope everyone can attend and learn more about this very important part of hamming.

In March, Gordon WW4GW, alias Bubba from Bubbaham, will be giving a presentation on Yagi antennas. For all you guys who have wanted a technical discussion this is aimed at you; please attend the meeting and be enlightened!

This afternoon I'll be heading to the lumberyard to get the junk to build our new repeater shack. It will be 4 x 8 x 8 on deck and in the front and 7 feet tall in the rear. I'll get a conventional door instead of building one because I think it will be a better seal against the weather and mice. The siding will be T-111 and the roofing will be fiberglass shingles because I feel metal roofing will sweat and drip condensate on the repeater and batteries. The whole building will sit upon 4 x 4 skids which will make it easier to move, be up off the Earth a couple inches and make it easy to get level. Tim, KG4HOT has volunteered his time and trailer to get the shack to the repeater site.

It looks like the land my family and I have been wanting in Nelson is really about to be ours. It'll be a lot of work to get our home, horse and antenna farm going but I'm eager for the challenge. So it looks like you guys are stuck with me after all. Take care and ...

73 de John, KI4DJT

Club Business

AARC Board Minutes January 7, 2007

BOD members present at the annual AARC Winter dinner were engaged in having fun and chowing down on good food. No club business transpired.

Submitted by: Marty AG4DN

Regular Meeting January 7, 2007

AARC members present at the annual AARC Winter dinner were also engaged in having fun and chowing down on good food. Therefore, there was no formal business session.

Submitted by: Marty Mait AG4DN, SECY

It's Official! Morse Code Requirement Ends February 23

From the ARRL Website, Jan. 26, 2007

NEWINGTON, CT, Jan 24, 2007 -- **Circle Friday, February 23, on your calendar.** That's when the current 5 WPM Morse code requirement will officially disappear from the Amateur Radio Service Part 97 rules in accordance with the FCC's *Report and Order (R&O)* in the "Morse code proceeding," WT Docket 05-235. **Beginning on that date, applicants for a General or Amateur Extra class Amateur Radio license no longer will have to**

demonstrate proficiency in Morse code. They'll just have to pass the applicable written examination. [Publication](#) of the new rules in the January 24 *Federal Register* started a 30-day countdown for the new rules to become effective. Deletion of the Morse requirement -- still a matter of controversy within the amateur community -- is a landmark in Amateur Radio history.

"The overall effect of this action is to further the public interest by encouraging individuals who are interested in communications technology or who are able to contribute to the advancement of the radio art, to become Amateur Radio operators; and eliminating a requirement that is now unnecessary and may discourage Amateur Service licensees from advancing their skills in the communications and technical phases of Amateur Radio," the FCC remarked in the "Morse code" *R&O* that settled the matter, at least from a regulatory standpoint. The League had asked the FCC to retain the 5 WPM for Amateur Extra class applicants, but the Commission held to its decision to eliminate the requirement across the board. The *R&O* appearing in the *Federal Register* constitutes the official version of the new rules.

Until 1991, when a Morse code examination was dropped from the requirements to obtain a Technician ticket, all prospective radio amateurs had to pass a Morse code test. With the change the US will join a growing list of countries that have dropped the need to demonstrate some level of Morse code proficiency to earn access to frequencies below 30 MHz.

The new rules also put all Technician licensees on an equal footing, whether or not they've passed a Morse code examination. Starting February 23, all Technicians will have CW privileges on 80, 40, 15 meters and CW, RTTY, data and SSB privileges on 10 meters. When the new rules go into effect Technicians may begin using their new privileges without any further action.

On or after February 23, an applicant holding a valid Certificate of Successful Completion of Examination (CSCE) for Element 3 (General) or Element 4 (Amateur Extra) credit may redeem it for an upgrade at a Volunteer Examiner Coordinator (VEC) exam session. A *CSCE* is good for 365 days from the date of issuance, *no exceptions*. For example, a Technician licensee holding a valid *CSCE* for Element 3 credit would have to apply at a VEC test session and pay the application fee, which most VECs charge, in order to receive an instant upgrade to General.

ARRL Regulatory Information Specialist Dan Henderson, N1ND, cautions that **a license upgrade is *not* automatic for those holding valid CSCEs for element credit. "You must apply for the upgrade at a VEC test session,** and you may *not* operate as *1AG* or *1AE* *until* you have upgraded and have been issued a *CSCE* marked for upgrade," he stresses. "A valid *CSCE* for element credit only does not confer any operating privileges." Henderson also advises all

radio amateurs to know and fully understand their operating privileges before taking to the airwaves. Some Technician licensees reportedly started showing up on 75 meters December 15 in the mistaken belief that they had gained phone privileges there.

The FCC *R&O* includes an *Order on Reconsideration* in WT Docket 04-140 -- the so-called "omnibus" proceeding. It will modify Part 97 in response to ARRL's request to accommodate automatically controlled narrowband digital stations on 80 meters in the wake of other rule changes that became effective last December 15. The Commission designated 3585 to 3600 kHz for such operations, although that segment will remain available for CW, RTTY and data. The ARRL had requested that the upper limit of the CW/RTTY/data subband be set at 3635 kHz so there would be no change in the existing 3620 to 3635 kHz subband.

The ARRL has posted all relevant information on these important Part 97 rule revisions on its "[FCC's Morse Code Report and Order WT Docket 05-235](#)" Web page.

Propagation Forecast Bulletin

ARLP005 de Tad Cook, K7RA

Might we see a high-bottom minimum at the end of this solar cycle? January had a higher monthly average sunspot number than nine of the previous twelve months. Looking at predicted smoothed sunspot numbers for 2007, they don't really go any lower this year than what is predicted for this month and the next.

The monthly averages of daily sunspot numbers for all of 2006 and January 2007 were 26.7, 5.3, 21.3, 55.2, 39.6, 24.4, 22.6, 22.8, 25.2, 14.7, 31.5, 22.2 and 28.2. Average daily solar flux numbers over the same months were 83.4, 76.5, 75.5, 88.9, 80.9, 76.5, 75.8, 79, 77.8, 74.3, 86.3, 84.4 and 83.5.

As you can see in the data above, there is a great deal of variation from month-to-month. A year ago, in February 2006, the average daily sunspot number for the month was only 5.3. That was the lowest value for the past year. The month just ended had an average daily value over five times the number for last February. In fact, January's average at 28.2 would be very close to the value for last February squared. But the solar minimum is expected this year, not last February.

A table of predicted smoothed solar values from August 2006 through December 2007 can be seen on the web at, <http://sec.noaa.gov/ftpd/weekly/Predict.txt>. These are Zurich sunspot numbers, which tend to be lower than the values we record at the end of these bulletins.

Why is August of last year's number predicted, instead of a known value? Because it is a 13 month smoothed number.

February 2007

So it is based on the actual sunspot numbers from February 2006 through January 2007, and the predicted values for February 2007. Likewise, the smoothed number for November 2006 is based on the actual sunspot numbers from May 2006 through January 2007, averaged with the predicted numbers for February through May 2007. The predicted smoothed sunspot number for December 2007, the last value shown on that table, would be based on the predicted monthly values for June 2007 through June 2008, all averaged together.

The predicted smoothed numbers from that table, for August 2006 through December 2007 are 15.4, 15.2, 14.0, 12.4, 11.5, 11.2, 11.0, 10.9, 11.0, 11.1, 11.3, 12.0, 11.2, 13.3, 15.6, 18.3, and 21.3. As you can see, the lowest value is March 2007, at 10.9, and notice that it rises rapidly at the end of this year.

What difference does higher sunspot activity make for HF propagation? As an example, for the middle of February, if the average sunspot number was 11, which is about the minimum value if there are any sunspots at all, we can compare that with a weekly average shown in February 2003 in this Propagation Forecast Bulletin: <http://www.arrl.org/w1aw/prop/2003-arlp007.html>.

If we pick a couple of locations, for example, Ohio and Spain, we can run some projections using a propagation prediction program to make some comparisons. The sunspot number in that 2003 bulletin is over 150. With the minimum sunspot number of 11, a program such as W6ELprop (see <http://www.qsl.net/w6elprop/>) shows a 20-meter path opening around 1430z, the signal strength jumping higher around 2000z, and the band probably dying out in another hour or so. But with the higher numbers, 20-meters is open almost around the clock, with the least likely period for propagation around 0430-1130z. On higher frequencies, the differences are more dramatic. 15-meters with low sunspot activity shows very little chance of opening, with a slight possibility in the morning on the Ohio end of the path. But with the higher solar activity, strong signals are predicted for 1230-2200z on the 15-meter band. Wait a few more years, and we might be there again.

Recently a strong solar wind caused geomagnetic numbers to jump high on Monday, January 29 with the planetary A index rising to 36. A good place to look for short-term predictions is at, <http://sec.noaa.gov/ftpmenu/forecasts/45DF.html>. For the February 1 report, we see quiet geomagnetic indices for the next week, with higher activity centered on February 13 and again on February 25-26.

This is based on activity during the current and previous solar rotation. If you would like to make a comment or have a tip for our readers, email the author at, k7ra@arrl.net.

For more information concerning radio propagation, see the ARRL Technical Information Service at,

<http://www.arrl.org/tis/info/propagation.html>. For a detailed explanation of the numbers used in this bulletin see, <http://www.arrl.org/tis/info/k9la-prop.html>. An archive of past propagation bulletins is at, <http://www.arrl.org/w1aw/prop/>. Monthly propagation charts between four USA regions and twelve overseas locations are at, <http://www.arrl.org/qst/propcharts/>.

Sunspot numbers for January 25 through 31 were 11, 11, 11, 13, 27, 33 and 32 with a mean of 19.7. 10.7 cm flux was 79.9, 79.7, 80.5, 81.7, 86.7, 87.5, and 89.2, with a mean of 83.6. Estimated planetary A indices were 1, 2, 3, 5, 36, 21 and 16 with a mean of 12. Estimated mid-latitude A indices were 1, 3, 3, 2, 19, 17 and 13, with a mean of 8.3.

Contest Highlights - Upcoming

Bob, W4RQ

ARRL-Sponsored Contests

Feb 17-18	ARRL International DX Contest – CW
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Complete info, rules and log forms for these events can be found online at the [ARRL Contest Calendar 2006](#) webpage.

Other Contests of Interest

Feb 24-25	REF French Contest
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The [SM3CER Contest Service - Contest Calendars](#) has info and rules for these contests and just about every contest that exists.

73, Bob W4RQ

**Remember:
FrostFest
is on
February 18
in Richmond!**

AARC Public Service Schedule	
None Reported	

Area Hamfests	
February 18 Richmond	Virginia State Convention (Richmond FrostFest) Sponsor: Richmond Amateur Telecommunications Society http://www.frostfest.com Talk-In: 146.880 (PL 74.4)
February 25 Annandale	Winterfest 07 Vienna Wireless Society http://www.viennawireless.org Talk-In: 146.91

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

VE Session Schedule - 2007	
March 10 Charlottesville (ARRL VEC)	Sponsor: ALBEMARLE ARC Time: 9:00 AM (Walk-ins allowed) Contact: HERBERT G WINN (434) 581-3744 Email: WW4GW@ARRL.NET VEC: ARRLVEC Location: National Radio Astronomy Observatory 520 Edgemont Road UVA CAMPUS Charlottesville, VA 22906
Date Location (ARRL VEC)	For other exam sessions in Virginia outside the AARC area, check the ARRL Exam Session Search web page.

For Sale Items	
None reported	

AARC Club Officers			
President	Jay Rostow	K4AZV	k4azv@turing.org 434-263-5795
Vice President	John Turchi	KI4DJT	m51John@juno.com 540-543-2037
Secretary	Marty Mait	AG4DN	ag4dn@earthlink.net 434-589-2825
Treasurer	Bob Pattison	K4DU	rep4@aol.com 434-960-3344
Director	Josh	KG4NGV	jmalone@ubergeeks.com 434-760-1678 (cell)
Director	Gordon Winn	WW4GW	ww4gw@arri.net 434-581-3744
Director	Stephanie Rostow	K4BMM	steph@turing.org 434-263-5795
Director	Bill Phillips	AD6JV	billp1048@earthlink.net 434 872-0686
Director	Stephanie Rostow	K4BMM	steph@turing.org 434-263-5795

Contest Calendars	
ARRL Contest Calendar 2007	ARRL sponsored contests
SM3CER Contest Service - Calendar 2007	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.wa4tfz.org/index.htm>



THE AARC BEACON
Vol 2007 No. 2
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ISSUE DEADLINE - 23rd of each month

Contact Information
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W4RQ@yahoo.com

Next Club Meeting : Jan. 7 - 6:00 PM Ponderosa - Pantops

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 (except for the Youth Net)

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 (If enabled)
145.030	MACHO Node
145.030	CHO Packet Bulletin Board

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 (-) 167.9 Hz Tone -- (Buckingham)

AARC CALENDAR OF EVENTS

DATE	EVENT
January 7	Annual Club Winter Dinner – Ponderosa - Pantops
February 13	Regular Club Meeting
March 13	Regular Club Meeting
April 10	Regular Club Meeting
May 8	Regular Club Meeting

AARC - PUBLIC SERVICE SCHEDULE

DATE	EVENT
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Please sign up at meetings as the SIGN UP CLIPBOARD is passed around. Contact Greg N4PGS indicating your interest in working particular events.

Membership application available in PDF format at <http://www.wa4tfz.org/images/AARCrenewalform2006.pdf>