

lost this along the way, I don't know, but I would like to see us get this special designation back. Of the 52 affiliated clubs in Virginia, only 4 currently hold Special Service Club status and they are the Rappahannock Valley ARC in Fredericksburg, the Roanoke Valley ARC, the Virginia Beach ARC, and Woodbridge Wireless, Inc.

To qualify for SSC status we are going to have to make a concerted effort to expand on the activities and services provided by the club. So please consider the following areas of development (from the AARL website) and think about how you can help the AARC in meeting these requirements.

New Ham Development and Training

Purpose: Develop an effective, coordinated program of public relations, recruiting, training and ongoing assistance targeted to prospective and newly licensed hams in your community.

Public Relations

Purpose: Establish an effective Amateur Radio presence in your community, including contact with local media and coverage of your activities; Public Information Officer appointment.

Emergency Communications

Purpose: Club members should become skilled in communicating effectively during communications emergencies and be prepared to assist when needed; Official Emergency Station appointment and participation in ARES.

Technical Advancement

Purpose: Continuing education in the technical aspects of Amateur Radio to ensure that your club members are technically competent, familiar and comfortable with modern radio-electronics technology; Technical Specialist appointment.

Operating Activities

Purpose: Active participation as a club in one or more major operating or operating support activities to ensure that your club maintains a high level of operating skill.

Miscellaneous Activities

Purpose: Every active club has its special interests and activities that make it unique, that give it special personality. List three of these activities. See the Active Club Online Primer for ideas under the sections on Special Service Clubs.

Now, back to the topic of Public Service which I mentioned earlier in this article. You might well ask how our support of the Jefferson Cup Bike Race relates to any of the development areas listed above. Well, first it relates to New Ham Development and Training, for in this PS event we had a number of members who were helping with this type of event for the first time. Just ask any of them whether they learned anything from their participation. Our participation directly impacts Public relations, from the Albemarle County Police officers who get a chance to see ham radio communication in action, to the race officials, to the other race volunteers, to the 550-some bike racers who participated in the 9 races of the day, all have come away with some exposure to ham radio. Shall I go on?

Our PS event increases the ability of each and every participant to be a more effective communicator; certainly it is inarguable that it is a club operating activity that helps increase the level of operating skill. And finally it absolutely

falls into the category of Miscellaneous Activity in that it is a unique heritage of our organization to support this bike race, and I for one can attest to the special personality that it imparted to all who participated.

There you have it: one PS event directly impacts 5 of the 6 areas of development which are requisites for our recognition as an ARRL Special Service Club. So the next time there is a club activity, event, or public service opportunity, please come out and participate. You will have a lot of fun, and you will make the AARC, our club, even stronger.

Thanks (in no particular order) to those who participated in the Jefferson Cup Races:

K4AZV
K4BMM
K2SSB
KF4UCI
N4PGS
K4DND
N4LJF
K4BAV
AD6JV
KI5LLB
KG4FJC

73 de K4DND

Veep Peeps

Mike, K14RIX

Dear Friends --- Spring is finally here, and with it comes plenty of opportunities to operate outdoors! Later this month, the **AARC will be having a special event station at the NRAO open house on April 27th**. We will be passing around a sign-up sheet at the next meeting, but if you are interested in helping out for at least an hour and won't be at the meeting, please contact me and I'll put you down.

This month we will be having a special presentation by Geep Howell, WA4RTS, and Brian Justin, WA1ZMS, on amateur microwave work. These two folks have been active on bands ranging from 440 MHz to 271 GHz - quite a range to work in. They also build their own equipment for this work. This should be a very exciting presentation indeed.

I am actively looking for volunteers to present at the May meeting and beyond. Please let me know if you are interested in presenting at meetings - our goal is to have a wide variety of technical presentations applicable to amateur radio this year, and you can help with this. Feel free to call me or e-mail me if you have ideas or are willing to present.

As always, we'll end with a W4UVA update. Student Council has allocated W4UVA a total of approximately \$1100 to purchase HF radio equipment for next semester. This brings

our total allocations to \$1800, \$700 of which we have spent on antennas and coax cable. We are planning to get the antennas in the air before the summer starts, and hopefully be active by the first week of classes.

Please feel free to e-mail or call me if you have any questions, comments, concerns, or complaints, or if you'd like to present (we're always looking for presenters!) See you at the April meeting!

Best regards,

Mike Benonis K14RIX

Club Business

Submitted by: Alan Swinger K9MBQ, Secretary

AARC Board Minutes March 11, 2008

Dave Damon opened the meeting to discuss content of Committee reports to be given at the general meeting, motions for funding for the BoD and for the general meeting, and to agree on the agenda for the meeting. The BoD was held at the NRAO building. BoD members present: Dave - K4DND (Pres), Mike – K14RIX (VP), Alan – K9MBQ (Secy), Don – N4UVA (Treas), Dennis – K4THE (Dir), Jay – K4AZV (Dir), and Gordon – WW4GW (Dir).

Key discussion items were as follows:

- Dave K4DND outlined his agenda items for the General meeting, encouraged Board members to check the AARC web site frequently for updates and QA, and emphasized the need for participation in the Mar 15-16 Virginia QSO party. He also noted that he signed out a letter to Dr. Fred Lo, Director of NRAO, thanking him for the use of NRAO facilities for AARC club meetings and noting that the club was a willing participant in the 27 Apr NRAO Open House.
- Reports were presented by the following committees: Technical – Gordon WW4GW, Activities – Jay K4AZV, Education – Dennis K4THE, Fund Raising – Dave K4DND in the absence of Linda K15LLB. The club is still in need of a Publications Committee chairperson. This gap needs to be filled so that AARC can have a person dedicated to pursuing publicity for club public service events – many of which lend support to recruiting Hams and club members.
- In support of the club and the Education committee, Gordon WW4GW (VEC) will schedule a June Exam session for those interested in obtaining a license or in upgrading.

Motions made:

- To support the capability of linking all repeaters in the AARC membership area, the club will need to procure and install a new ARCOM controller for the 76 machine at the Marshall Manor site. Since funding required is estimated to be approximately \$275, it was moved to take this proposal to the General Membership meeting for discussion and approval.
- Food expense receipts for 2007 were submitted by John Turchi totaling approximately \$500. All agreed that he should be reimbursed, but because of the total this proposal also should be taken to the General Membership Meeting for discussion and approval. The Board also agreed that these expenses need to be reduced in the future.
- Dennis K4THE suggested that AARC buy new Ham Radio publications for the Public Library to replace the old ones they currently maintain, as well as Instruction Manuals for AARC. The BoD agreed to consider after cost research was complete and Library willingness to accept the gift.

The meeting adjourned in preparation for the General Membership meeting.

Regular Meeting March 11, 2008

The March 2008 AARC Regular monthly meeting was convened at 7:30PM by Dave Damon (K4DND), club President, at the NRAO building in Charlottesville, VA. The minutes of the February 2008 meetings were approved as they appear in the March issue of the Beacon without discussion or change. It was also noted by the club Secretary – Alan K9MBQ – that one change was made to the February minutes re an incorrect repeater location. All members present made brief introductions and Dave recognized the two Life Members present: Harry W2HD and Joe W2PVY.

Don Eason (N4UVA) presented the Treasurer's report, showing a balance of \$5,360.31 on hand. He raised the issue of food receipts for various club activities submitted by John Turchi K14DJT in the amount of \$570.51. **A motion was made to pay John for these expenses and was approved by the membership.** It was also noted that the intent in the future is to cut back on this expense, and to consider the possibility of voluntary contributions to defray the expense at club events.

Dave K4DND addressed the following:

- Sent a letter from AARC to the Director of NRAO thanking him for the continued support of club activities and use of NRAO facilities, and also committed AARC to support the NRAO Open House on 27 April. Note that we are guests and it is our responsibility to leave NRAO facilities as good as or better than we found them.
- Note changes to the WEB Site – Announcements, new SK List, Membership list (if not on it, pay dues and notify the Secretary), and the upcoming event calendar which still needs work.
- Sympathy cards were sent to the families of Bill Faust KB4TMB, Richard Dale K8EV, Billy Cottrell W4CZY, and Bill Coughlin W2IDN.
- Certificates were presented to:
 - Marty Mait AG4DN in recognition for his 3 years as club secretary
 - Manny Rodriguez K4MSR in recognition of his service as EC of Fluvanna County.
 - N4CV and KG4SYS for sending the Beacon by mail at their own expense to Hams who do not have internet access.
- **Virginia QSO Party** – 2 PM on Saturday March 15 to 10 PM on Sunday March 16; he encouraged members to pledge participation and submit logs since the club will get credit if three or more members do so. N3FJP logging software can be obtained at no cost to use for this effort (<http://www.n3fjp.com/>). Last year K4BDR won High Single Band and High Rookie . . . Hope to see you on the bands, especially since C-Ville and Albemarle are in demand.
- March 22 – There will be a **WXspot Log test** to support Skywarn spotters (ham and non-ham). Software can be downloaded from www.wxspots.com. Test is scheduled from 1-3PM, all are invited to participate. Call K4DND 973-5866 if you need help or more information.
- **MS150 Bike tour** sked for 7-8 June; Cayman KG4OVD has volunteered to lead this effort.
- **Field Day** – last weekend in June; a fun event for which we need both a lead person/coordinator and a place to set up. Note that no one volunteered at this meeting. **However, FD is a premier Ham Radio event, so all please consider committing some time and effort . . . and contact Jay soonest!**
- **NRAO Open House is scheduled for 27 April** and Mike KI4RIX is the club coordinator. AARC has committed by letter to the Director of NRAO to support this event. Note that this will be listed in the May QST Special Event section which will be published in early April. AARC will be sending QSL cards to stations worked.
- The **Virginia QSO Party** is scheduled for the coming weekend – 2 PM 15 Mar – 10 PM 16 Mar. See comments above.
- The **All American History Weekend** (formerly US Armed Forces weekend) is coming up this summer. Expect to be asked on short notice to support.
- **Club Inventor List** needs to be updated and the material – mostly stored at Jay's QTH – needs to be relocated. A volunteer and a site are needed – please consider assisting.

Education – Dennis (K4THE):

- Several pages of information have been put on the club web site for review.
- Sent around the list of member education topic preferences for additional input.
- Proposed to activate all fixed sites to ensure all are in operational status. Will send out a list of sites and proposed dates/times.

Technical – Gordon (WW4GW):

- To support licensing and upgrades, a **VE session will be scheduled for mid June**.
- The TC met on Sun, 9 Mar to discuss issues relating to the WA4TFZ repeater(s) and to formulate a plan for the coming year. The Albemarle County area presents many challenges for repeater/radio users due to its topography and the fact that the AARC consists of members from many different areas. To provide service to as many of these radio operators as possible the TC decided to do the following:

Mike Benonis (KI4RIX) noted that post-meeting presentations on tap for the April meeting will be about Microwave applications. He also solicited members for other presentation ideas and for volunteers to be presenters.

Committee reports followed.

Activities – Jay (K4AZV):

- **Jefferson Cup Bike Race** – sked for 30 Mar; K4AZV to lead, but needs many volunteers. Contact Jay to sign up.

- Install a new 2M and 440 ant at Marshall Manor as soon as weather permits
 - Install a 440 repeater at Marshall Manor as soon as coordination is complete – a request has been filed.
 - Install a weather alert system at M-J Hospital – to be linked to the 147.760 repeater for alerts in Albemarle County and the City of C-Ville. This will be completed by 1 June (before the summer storm season).
 - Re-install the 146.925 and 224.760 repeaters on Heard's Mtn as soon as they are repaired and tested. The duplexer that was purchased from Tim KG4HOT will not be needed and so will be returned to him. The current duplexer set will be retuned and returned to service. A weather alert system will also be installed for alerts in Nelson County – also to be completed by 1 June.
 - Search for a new repeater site in northern Albemarle or southern Greene Counties for a new club repeater to serve that area. When coordinated, a new 2M and 440 repeater along with a weather alert system for Greene and Orange Counties will be installed at this site.
 - Install an ARCOM controller at the Marshall Manor site to allow all club repeaters to be linked when and as required. **A motion was made and approved by the membership to expend up to \$300 to procure this new controller.** A related issue for further discussion by the TC is Link-on-Demand vs. a Hard-link.
- The TC also established a subcommittee to find a replacement site for Marshall Manor should the Kluge vineyard ask AARC to remove the repeater site.

Publication - Vacant: Need a volunteer to take over this committee and to handle AARC publicity. Contact Dave K4DND.

Old/New Business: None

The meeting was adjourned. Alan (K9MBO) gave a Power Point presentation on Station Grounding and Lightning Protection using ARRL and vendor reference materials, along with photos from the effort at his home station. The presentation is available on the AARC web site.

The next AARC meeting is planned for 7:30 PM on 8 April in the NRAO building.

ARRL Propagation de K7RA

From ARRL Bulletin ARLP014

It is exciting to see heightened solar activity one week into Spring. Currently three sunspots are visible, 987, 988 and 989, and the consensus says that all seem to be old Cycle 23 spots. But with the three sunspot groups so close to the Sun's equator, it is hard to tell for certain. We know that Cycle 24 spots should have magnetic polarity opposing the magnetic signature of Cycle 23 sunspots, but this is also true for sunspots below the equator relative to sunspots above.

Average sunspot numbers for the reporting week (Thursday through Wednesday) rose over 18 points from the previous week, to 23.4. Average daily solar flux was up nearly six points to 75.4. Average geomagnetic indicators were unchanged, but this is because they fell from the start of last week, and rose this week.

An M2-class solar flare erupted from sunspot 989 on March 25, but it was not earth-directed. Even so, it stimulated geomagnetic activity over the following two days. The mid-latitude K index peaked at five, early (UTC) on March 27, which was Wednesday evening in North America. The high latitude College K index (Fairbanks, Alaska) peaked earlier from 0900-1500 UTC on March 26 at a level of six. This was 1:00-7:00 AM Alaska Daylight Time on Wednesday.

The short term forecast is for sunspot activity around where it has been for the past few days, possibly extending to the end of the first week in April. The predicted planetary A index for March 28 through April 7 is 15, 10, 10, 5, 8, 5, 5, 15, 25, 15 and 10.

Geophysical Institute Prague predicts unsettled to active conditions for March 28, unsettled March 29-30, quiet to unsettled March 31 through April 1, and quiet conditions April 2-3.

Expect improved conditions for the CQ World Wide WPX SSB Contest this weekend.

With the VHF discussions in this bulletin over the past few weeks, John Adams, K4JYX of Port Orange, Florida wanted to remind us about ducting. About ten years ago he was on 2 meter FM in Daytona Beach when he tuned across a full-quieting signal from a repeater he sensed couldn't be local. The conversation he monitored mentioned downtown Cleveland, and he was trying to think of a Cleveland outside of Ohio he might be hearing, but Cleveland Tennessee was too far away. John broke in, mentioned he was in Daytona, which the other operators thought was Dayton. John was running 25 watts into a vertical, and the conversation continued with strong signals.

John writes, "We carried on for about 35 minutes, and suddenly they disappeared, never to be heard from again. I checked the weather channel, and a front had just passed - a front that had extended up through Cleveland, Ohio. The signals apparently entered the temperature inverted front and were ducted as if in a physical duct, the 1600 miles or so between us. Freak QSOs are fun!"

Jon Jones, NOJK responded to JE1BMJ's comments attributing long-distance 6 meter propagation to Polar Mesosphere Summer Echo. Jon published a paper in the 2007 Central States VHF Society Proceedings analyzing JA to USA and Europe multi-hop openings in 2006. Jon says the propagation was, "multi-hop sporadic E. Some of the Es hops may have been 'Es cloud to Es cloud' in addition to 'ground - Es cloud - ground.' The path loss may have been reduced by Es hops over salt water. The footprints via Multi-hop Es can 'focus' at times to relatively small areas."

Some 10 meter reports arrived this week. Joaquin Montoya, EA2CCG reports from Northern Spain that on Friday, March 21, 10 meter signals from South America were quite strong. He mentioned Argentina and Brazil coming in at S7-9, and a friend of his worked a Brazilian with just an antenna on his balcony.

Terry Oldham, KH6MT of Grand Island, Florida notes that on Thursday, March 27 he is hearing Hawaii stations on 10 meters.

Carl Luetzelschwab, K9LA mentioned that in our last bulletin the claim was made that at the equinox, "all of the earth is receiving a maximum amount of solar radiation, the same in both southern and northern hemispheres." He pointed out that this is not really the case, as the Sun's output is constant, for all practical purposes.

Carl wrote, "At the equinoxes both hemispheres are illuminated equally, i.e., the angles of incidence of

solar radiation on the atmosphere in both hemispheres are similar. In the northern hemisphere Summer, the angle of incidence is closest to perpendicular, providing the highest residual nighttime MUFs."

He continues, "One would thus think that Summer daytime MUFs would also be higher, but another process comes into play to alter that -- the ratio of atomic oxygen (important for electron production) to molecular oxygen and molecular nitrogen (important for electron loss) is higher in Winter than in Summer, resulting in higher daytime MUFs in the Winter. This is the so-called F2 region winter anomaly."

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 web page 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 March 20 through 26 were 0, 0, 0, 14, 35, 52, and 63 with a mean of 23.4. 10.7 cm flux was 68.4, 68.2, 69.6, 72, 79.4, 88.6, and 81.6 with a mean of 75.4. Estimated planetary A indices were 8, 5, 5, 8, 4, 4 and 27 with a mean of 8.7. Estimated mid-latitude A indices were 7, 4, 4, 7, 2, 3 and 16, with a mean of 6.1.

Contest Highlights - Upcoming

Bob, W4RQ

ARRL-Sponsored Contests

	None Reported
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Complete info, rules and log forms for these events can be found online at the ARRL Contest Calendar webpage.

Other Contests of Interest

	?
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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

AARC Public Service Schedule	
None Reported	

Area Hamfests	
Date	None reported
Location	

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

VE Session Schedule - 2008	
<p>June 21 Charlottesville</p> <p>(ARRL VEC)</p>	<p>Sponsor: ALBEMARLE ARC Time: 9:00AM (Walk-ins allowed) Contact: HERBERT G WINN (434)581-3744 Email: WW4GW@ARRL.NET VEC: ARRL/VEC Location: National Radio Astronomy Observatory 520 Edgemont Road – UVA Campus WWW.ALBEMARLERADIO.ORG/VE/ CHARLOTTESVILLE, VA 22906</p>
<p>Date</p> <p>Location</p> <p>(ARRL VEC)</p>	<p>For exam sessions in Virginia outside the AARC area, check the ARRL Exam Session Search web page.</p>

For Sale Items	
For Sale	Kenwood TS-520S SSB xvcr, with VFO, RIT and Calrad mike, DM-16-HL and DYMACT-50-HIGH-LOW. Realistic D-160 with SP-150 speaker. Heathkit stereo headphones. GE H-14. Equipment being sold for widow of a SK. Call Jimmy, K4JMY at (434) 973-5589.
For Sale Ameritron Linear Amp	Ameritron AL-800 linear amplifier – bought new but never used. Provides 1200 watts PEP output from 160 to 15 meters using a 3CX800A7 tube Am planning to move up to a heftier unit. Call Bob W4RQ at (434) 990-2659 or email at w4rq@yahoo.com..
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	Gordon Winn	WW4GW	ww4gw@arrl.net 434 581-3744
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
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<http://www.albemarleadio.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 : April 8 - 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
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.albemarleadio.org/members/AARC_member_application.pdf