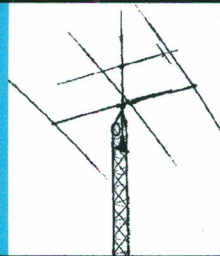


# The AARC Beacon



*Amateur Radio News For  
Charlottesville and  
Albemarle County,  
Virginia*

Volume 2003, No. 3



April 2003

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## Meeting Notice

The next regular AARC meeting will be held on **Tuesday, April 8 at 7:30 PM** at the **Astronomy Building on the UVA campus**. The program for the evening will be on **radio kits building by Rob, W3DX**.

See you there!!

## VE Exam Session This Month

The Albemarle ARC VE Team will conduct a VE Exam session following the completion of the Youth License class currently underway. It is tentatively scheduled for **April 19 at 9:00 AM**, depending on weather in the meantime. It will be held at the Astronomy building at UVA. **Please monitor the repeaters for updated info.**

**\*\*\*NOTE\*\*\*: Beginning January 1, 2003, ARRL VEC requires that the fee charged for taking an exam will be \$12.** This is an increase over the \$10 charged in previous years.

## The President Speaks

*Steve, KF4ZGD*

Spring is here, and public service season is upon us! We have a lot of public service and other activities planned over the last few months, so plan on coming out and supporting the club!!!

I'll take just a few minutes here to talk about one of the activities coming up very soon. **Saturday, April 5**, we will be holding a **transmitter hunt** and everyone is invited to participate. If you've never participated in a T-hunt before, there's no better way to learn. Elaborate equipment is definitely not required, as the difficulty level will be beginner. The hunt will start at 10:00 A.M. and go until 11:30 A.M.

## April 2003

We will all meet at the Barracks Road shopping center by the Burger King, and disperse from there to find the transmitter. So, everybody mark your calendars and come on out! Also, I'd like to say special thanks to Bob Dorsey for providing the hidden transmitter for us to find.

Another thing I'd like to mention here is the AARC membership cards. This year we have membership cards for all members. Renewed members who have been to recent meetings have received theirs, and all other members who haven't received their cards yet should make plans on attending an upcoming club meeting and collecting theirs.

This month's meeting should be very interesting, as the topic will be **radio kit building by Rob Capon, W3DX**, and I encourage everyone to attend. A big 'Thank You!' to Steve Clements for providing refreshments at the last meeting, as well as to all the others who have helped out in that capacity recently!

73 -- Steve Traylor, KF4ZGD

## Veep Peeps

Pete, W4PRT

Greetings!

This month's presentation at the club meeting will be presented by Rob Capon (W3DX). The presentation that he'll give will be about **Radio kits and kit building**.

I've always been interested in electronics. Here lately I've actually tried my hand at assembling a few small electronic kits. The first was a LED thingy that lit up in different patterns; the second was a bit more involved, it was a binary clock kit. Ultimately, I'd like to have the skills to try and build my own radio. I've looked over the QRP kits out there and there are quite a few.

I know that the last time that I heard Rob talk I got all fired up, perhaps that is what inspired me to try my hand at building something.

I'm sure that I'll be inspired again and maybe, just maybe this time I'll try on of the simpler kits out there and see what I can make of it. The article in this month's QST about the Norcal Sierra just might be the project that I am looking for.

So, if you're looking for something different and exciting, come on out and take in Rob's presentation.

I'd also like to take a minute and let everyone know about the **upcoming presentations that we have at the next five Club Meetings**.

**May** – the presentation will be about Field Day. I'd like that to be the Field Day Planning meeting like we did last year.

**June** is going to be a presentation by Buddy Nighswonger (AD4CG) about the repeater systems that are up in Madison County.

**July** is going to be a presentation by Carl Clements (W4CAC) who is our ARRL Section Manager.

**August** is traditionally our **Picnic Meeting** and 2nd Annual Hamfest.

**September** is going to be a presentation by Albemarle Police Department about the MobileWatch Program.

Well, that's it for now. Hope to see you all at the next club meeting.

73, Pete

## KidVention 2003

Mike, KA4JJD

Amateur radio was represented at KidVention, an annual event organized by the Virginia Discovery Museum, which took place on Saturday, March 8, at Piedmont Virginia Community College. This year's theme was "discover the skies," and the exhibits included skydiving, hang gliding, Skylab, other aspects of astronomy, birds, bees, bats, rocketry, radio controlled model planes, and many others. Ham radio and the ionosphere were represented by Dave, K4DND; Bill, KD4TOR; and Mike, KA4JJD. The trio made contacts on HF, UHF, and VHF and demonstrated propagation programs and APRS. The new ARRL kid's brochure, "Leap Into Amateur Radio" was distributed. Many thanks to the following hams who took time to talk on the local repeaters to 34 eager (mike-swallowing) kids: Joe, W2PVY; Don, KE4DDR; Steve, KF4ZGD; Tim, KG4HOT; Jimmy, K4JMY; and Mike, N4HRO. Over 3000 people attended the event, which was cosponsored by WVPT and Z-95.



Figure 1: Bill (KD4TOR) demonstrates his antenna.



Figure 2: Bill (KD4TOR) and Mike (KA4JJD) explain skip to event visitors.

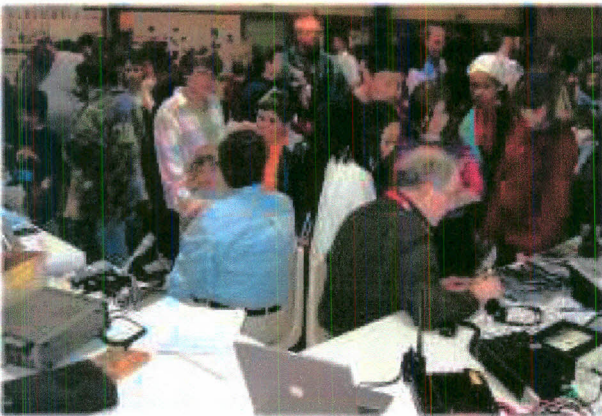


Figure 3: Eager youngsters ask questions.



Figure 4: Bill (KD4TOR) and Dave (K4DND) present HF and APRS to interested kids and parents.

## Necessity, The Mother of Invention

*Bob Pattison, K4DU*

Have you ever looked at an antenna and wondered how it came about? The world of antennas has some fascinating designs and some fascinating stories as well. One such story is about how the Quad antenna came to be. It is truly a story of fire, brimstone and faith.

The history of the quad antenna goes back to 1939 and a group of radio engineers who were working to install a "Missionary Radio Station" high in the Andes Mountains of Ecuador. The original antenna was a four-element parasitic beam aimed at North America.

Apparently operating a four-element beam with 10,000 watts in the thin evening mountain air near Quito had some unexpected effects. "Gigantic corona discharges sprang full-blown from the tips of the driven element and directors burned. Molten chunks of aluminum fell to the ground as fire slowly consumed the beam".

The noise from the discharges was so loud that it could be heard in the neighborhood around the station. "The music and programs of HCJB could be clearly heard through the city as the r-f energy gave fuel to the crowns of fire. The chief engineer (Clarence C. Moore W9LZX) concluded that the highly ionized air at the elevation of two miles could not withstand the high voltage potentials developed at the tips of the beam." An attempt to solve this problem by placing cooper flush balls and the ends of the elements reduced the fire, but de-tuned the beam.

The idea of creating an antenna that was essentially a folded dipole "pulled open" came to the chief engineer slowly as a "divine inspiration" after spending a vacation in a bamboo cottage with engineering reference books. After building this antenna for HCJB he built one for his 20-meter ham station HC1JB.

The quad did not require the same space as a beam; it was quiet for reception and did not demonstrate the problem with rain static that seemed typical for beams. For many years a debate has raged between the fans of quads vs. the advocates of beams. They both have their advantages.

If you want to know more about quads find a copy of "All About Cubical Quad Antennas, by William Orr, W6SAI which is where I found the material for this article.

## ARRL Executive Committee Updated on FCC, Legislative Matters

Tnx Rick, KO4WQ

### ARRL Bulletin 25 ARLB025

ARRL General Counsel Chris Imlay, W3KD, told the League's Executive Committee at its March 15 meeting in Irving, Texas, that he expects the FCC to release an "omnibus" Amateur Radio Notice of Proposed Rule Making (NPRM) sometime in May.

Because the comment period for the omnibus NPRM could expire before the ARRL Board of Directors meets in July, the EC discussed several issues it's anticipated the NPRM will contain. The EC did not adopt any positions as ARRL policy, since it's not yet clear which proposals the NPRM might include.

Imlay also told the EC that it may not be necessary to request temporary relief from spread-spectrum automatic power control requirements at 2.4 GHz for a group of amateur High Speed Digital and Multimedia experimenters, as the group could achieve its objectives within existing Part 97 regulations.

Committee members also discussed issues raised in a draft report on options to better protect and deploy Amateur Radio in the bands between 902 MHz and 24.25 GHz. The EC concluded that the final report should include an analysis of the concept of "strategic partnering" with non-amateur interests.

ARRL CEO David Sumner, K1ZZ, told the Committee that reintroduction in the US House of Representatives of the Amateur Radio Emergency Communications Consistency Act was expected to happen soon. The EC also agreed to a plan of work for 2003 that included completing a review of the League's standing committees.

## RF-Shielded Clothing, etc...

Tnx Ed Deasy, KF4UTD

I've been meaning to send out this link since I came across it.

<http://www.berk.com/~lessemf/personal.html><http://www.berk.com/~lessemf/personal.html>

Here's a sample description of their shielded baseball cap. Watch out for that **"mind noise."**

Protect your brain from RF (radio-frequency) pollution with this handsome baseball style hat. Specially designed to shield

the head from frequencies from below AM through microwave, including cellular phone frequencies.

Tested to provide over 99% Electric field shielding over the range from 50 Hz to 10 kHz and 80-99% up to 990 MHz. Lined with a sophisticated fabric made from cotton woven with a thin stainless steel thread. This gives this unique fabric a truly comfortable, natural feel and the durability and washability of cotton, but with exceptional reflective characteristics.

Research links RF radiation with behavioral and cellular disturbances. Many people can actually sense the differences in the levels of "mind noise" from RF radiation. Provide your brain a quiet place without interference to your mental processes from RF radiation. Washable, Navy blue color. Adjustment strap means one size fits all. Union made in USA.

## Club Business

### AARC Board Minutes March 11, 2003

Board Members Present: Pete W4PRT; John KX4P; Steve T KF4ZGD; Steve C KD4HBX; Marty AG4DN; Will KJ4XZ; Bob K4DU. Members Absent: Ralph K4CFE; Howard KG4TWQ.

Steve KF4ZGD opened the meeting at 6:30 PM.

Steve noted that the club at present had 60 plus members. This is compared to 86 in 2002. 50 plus members had paid their dues for 2003.

Pete now addressed programs. The program for tonight was going to be "antennas." For the month of April, Bob W3DX is to make a presentation on kit building. In the month of May it is anticipated that Walter KG4QIA would be well enough to make a presentation on techniques of soldering. He is currently recovering from surgery and may not be up to the presentation. May's meeting will also be used to plan for Field Day in June. In June Buddy Nighswonger AD4CG will make a presentation on the Madison repeater setup. July will feature Paul Clements ARRL Section Manager and discuss items of interest in the State and Federal government. In August we will have our annual club picnic and tailgate hamfest. Pete is still working on the balance of the year.

Steve was given a CD-R from ARRL titled "Amateur Radio Today" for use as the club sees fit during class presentations.

Bob (Membership Committee) requested an up to date club roster. Steve indicated that Ben could provide the latest roster.

Steve informed the Board that the club "transmitter hunt" was to take place on 5 April. More information will be forthcoming shortly.

Membership cards were ready for distribution and he would take care of this at the General Meeting to follow.

During the April meeting the club will raffle a 440 Icom HT.

The club must repair our repeaters and Steve requested a vote to approve the expenditure of \$100 for this purpose. A motion was made, second and approved by voice vote.

Steve was to request (from Dave K4DND chairman of the Technical Committee) a list of pending club projects.

The club is hoping to be able to conduct Tech and General classes in the Fall of 2003.

Ed Deasy was recognized for his outstanding work on the club web site and given a vote of thanks.

There is a problem with the records of the Public Service Recognition Awards. Greg N4PGS is trying to correct the situation and only after will he be able to make the proper awards. The ACC Championship Boat races will be held at Lake Monticello on 19 April. Competing Universities will be UVA, Clemson, Duke and Carolina. Radio operators will be needed. Marty AG4DN can be contacted by individuals that can support this event.

Also on the 19 April there is a VE test for those that desire upgrade or to obtain a Tech license.

The club now has insurance coverage for acts of "terrorism" against club repeaters.

With no further business the Board meeting closed at 7:08 PM.

*Submitted by Marty AG4DN, Secy.*

### Regular Meeting February 11, 2003

Steve KF4ZGD opened the meeting at 7:30 PM.

Rick KO4WQ asked for a moment of silence for the passing of Joe's (W2PVY) mother. Memorial services will be held at the Methodist Church in Palmyra on Sunday, March 16 at 3:00 PM.

Ben KG4QVP circulated a membership list for corrections. There were at present 60 club members and 50 plus had paid their 2003 dues.

Steve distributed membership cards to paid up members present follow by the introductions of members.

Two new amateurs were approved for membership in the AARC: William S. Bear KG4VVY and Arthur A. McCombs K2DJL.

Pete introduced tonight's program, "Antennas." He indicated this would be an open discussion covering advantages and disadvantages of the various antennas used in amateur radio with full participation by members present. There followed a discussion to include questions and answers that covered items of interest such as cost of materials, advantages of building your own antenna, need to clarify what you desire an antenna to accomplish and then purchase or build the

best one for that purpose. Also discussed were the best antennas for certain purposes, lightning and storm dangers to equipment, etc.

Pete then covered the programs planned for the balance of the year. (See Board Minutes for details.)

Ben indicated that there were nine students attending the current Tech Class. The test is planned for 19 April.

The membership was informed about the Lake Monticello Boat Races on 19 April and the need for amateur support.

Steve KD4HBX was thanked for arranging for refreshments for the past meetings. He asked for volunteers to perform this task at the next meeting. With no member volunteering it was indicated that there would be no refreshments served.

Pete indicated that the May meeting would in part be used for field Day planning.

Steve KF4ZGD called for the approval of February 2003 Minutes as they appeared in the March Beacon. The motion was made and seconded with no discussion and the minutes were approved.

Steve informed the club of the "transmitter hunt" planned for 5 April at 10:00 AM.

Steve covered the problem with the public service awards (see Board Minutes).

Steve indicated that there was now insurance coverage against "terrorism" for the club repeaters.

Steve noted the club participation in the Albemarle County emergency drill on 6 March.

Ron K4RKA indicated that the club added an additional \$700 plus to its treasury through sale of surplus equipment.

Being no further items on the agenda Steve called for a motion to close the meeting. The motion was made and seconded with no followed and the motion was approved by voice vote at 8:55 PM.

*Submitted by Marty Mait AG4DN, Secy.*

## Public Service Event Schedule - 2003

Greg, N4PGS

This is the current Public Service event schedule in which AARC will participate this year. Please come out and join us and help make these events a success!!

Date	Event
Some time in April	Flood related drill- Scottsville
Sunday April 6, 1400-?	Multiple Sclerosis Walk
Saturday, June 7	Multiple Sclerosis Bike Tour, first day
Sunday, June 8	Multiple Sclerosis Bike Tour, second day
June??	Triathlon, Walnut Creek Park
Saturday, August 2	Mountain Mama Bike Tour, Monterey VA. A heavy-duty bike tour through mountains of Virginia and West Virginia. About 100 miles with more than 10,000 feet of climbing. All in one day.
August ??	Triathlon. Walnut Creek Park
Saturday, November 1	Montpelier Horse Races

## Contest Highlights This Month

Bob, K4UVT

### ARRL-Sponsored Contests

\*\*\*None scheduled\*\*\*

Complete info, rules and log forms for these events can be obtained online at the [ARRL Contest Calendar - 2003](#) webpage.

### Other Contests of Interest

**Apr 5-6 QCWA QSO Party**

**Apr 12-13 Japan DX Contest**

Apr 26-27 Florida QSO Party  
 Nebraska QSO Party  
 Helvetia Contest (Swiss)

The [SM3CER Contest Service - Contest Calendars](#) is the most comprehensive web site to obtain info and rules for just about every contest that exists. Just click the link for the month of interest to see a full list of all contests scheduled for that month. Then click on the contest of interest to get info on that contest.

73, Bob K4UVT

## AARC Classified Ads

All items must be related to amateur radio and must be surplus to the owners operation (i.e. no dealers or for profit). Price may be listed if desired. **Note:** Check also the WA4TFZ/AARC web page at <http://www.people.virginia.edu/~ejd4e/aarc/>. Please note that all small letters must be used for this address. New Ads should be placed directly to the Editor: 804 990-2659 or via E-mail to the Editor at [k4uvt@yahoo.com](mailto:k4uvt@yahoo.com) Please **let K4RKA know when items can be deleted from this file.** Updated 3/20/2003.

<b>Need a Manual??</b>	Here are some sites recommended on the Thursday night net... <a href="http://www.w7fg.com">www.w7fg.com</a> , <a href="http://www.alinco.com">alinco.com</a> , <a href="http://www.kenwood.com">kenwood.com</a> , <a href="http://www.icom.com">icom.com</a> , <a href="http://www.hamradio.com">hamradio.com</a> . If that is not enough, W2EIU, Ernie has a bunch of manuals, both old and new and K4RKA has several military equipment manuals. Good hunting...
<b>02/20/03 FOR SALE: 2 Meter Rigs</b>	Brad, N7IVV, offers FT221R all mode 2m 25 watt out and HW202 crystal 2m transceiver. Call 434-974-2725.
<b>8/15/02 FOR SALE: K4MTX Estate Sale</b>	Channel Master stereo headphones, \$5. 6 outlet ac power strip, soldering iron, Wollensak stereo headphones \$3 each or best offer. Speaker \$2. Contact Ron, K4RKA, on .925 or 434 973-3640

## Area Hamfests

<b>Chesapeake Hamfest</b>	Chesapeake AR Service <a href="http://www.gsl.net/cars">http://www.gsl.net/cars</a> Contact: Ruth Bigio, KB4LIF 1653 Tallwood Street Norfolk, VA 23518 Phone: 757-583-1703 Email: <a href="mailto:Ruthis23505@yahoo.com">Ruthis23505@yahoo.com</a>
<b>April 12</b>	

## FCC Database Updates

<b>New Calls</b>	
None reported	
<b>Upgrades</b>	
None Reported	

## VE Session Schedule - 2003

<b>April 12 Richmond</b>  (Richmond ARC/RAVE)  (ARRL VEC)	Time: 9:00 AM (Walk-ins allowed) Contact: Pat Wilson (804) 932-9424 <a href="http://WWW.W4PW.ORG">WWW.W4PW.ORG</a> (TO REGISTER) Location: J SARGEANT REYNOLDS COMM COLL 1651 E PARHAM RD-BLDG B RICHMOND, VA 23228
<b>April 19 Charlottesville</b>  (AARC VE Team) (ARRL VEC)	Time: 9:00 AM (Walk-ins allowed) Contact: Harry Dannals (434) 974-7388 Email: <a href="mailto:W2HD@ARRL.NET">W2HD@ARRL.NET</a> VEC: ARRL/VEC Location: Astronomy Bldg. - UVA 530 McCormick Road Charlottesville, VA
<b>Date Location</b>  (ARRL VEC)	For other exam sessions in Virginia outside the AARC area, check the <a href="#">ARRL Exam Session Search</a> web page.

## AARC Club Officers

President	Steven Traylor	KF4ZGD	<a href="mailto:kf4zgd@juno.com">kf4zgd@juno.com</a> 434-296-7418
Vice President	Pete Thorsen	W4PRT	<a href="mailto:prt7u@virginia.edu">prt7u@virginia.edu</a> 434-973-6888
Secretary	Marty Mait	AG4DN	<a href="mailto:mandim8@aol.com">mandim8@aol.com</a> 434-589-2825
Treasurer	Ralph Traylor	K4CFE	<a href="mailto:rw6t@virginia.edu">rw6t@virginia.edu</a> 434-296-7418
Director	Bob Pattison	K4DU	<a href="mailto:rep4@aol.com">rep4@aol.com</a> 434-985-4828
Director	Will Seay	KJ4XZ	434-823-5665
Director	John Green	KX4P	<a href="mailto:jgreen@comdial.com">jgreen@comdial.com</a> 434-975-4493
Director	Howard Gay	KG4TWQ	<a href="mailto:kg4fyf@earthlink.net">kg4fyf@earthlink.net</a> 540-456-6445
Director	Steve Clements	KD4HBX	

## Contest Calendars

<a href="#">ARRL Contest Calendar 2003</a>	ARRL sponsored contests
<a href="#">SM3CER Contest Service - Calendar 2003</a>	Contests all over the world! Also has links to online rules for most contests
<a href="#">Contesting Online</a>	Just about everything contests!

Albemarle Amateur Radio Club  
 P.O. Box 6833  
 Charlottesville, VA 22906  
<http://www.people.virginia.edu/~ejd4e/aarc/index.htm>



THE AARC BEACON  
 Vol 2003 No. 3  
 April 2003



ISSUE DEADLINE - 23<sup>rd</sup> of each month

Contact Information  
 Daniel R. (Bob) Dorsey, Jr. K4UVT  
 PO Box 530  
 Ruckersville, VA 22968-0530  
 (434) 990-2659  
[K4uvt@arrl.net](mailto:K4uvt@arrl.net)

Next Club Meeting : April 8 - 7:30 PM UVA - Astronomy Building

CLUB MEETINGS and NETS

**REGULAR Meeting:** Second Tuesday of each month at 7:30 PM  
**BOARD & TECHNICAL Meetings:** First Tuesday of each month at 7:30 PM  
 Meetings are held at the UVA Astronomy building at 530 McCormick 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  
**Youth Net:** Each Wednesday at 7:30 PM on 147.075  
**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**

INPUT/OUTPUT	Tone Access (if needed)
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**

AARC CALENDAR OF EVENTS

DATE	EVENT
April 8	Regular Club Meeting
May 13	Regular Club Meeting
June 10	Regular Club Meeting
July 8	Regular Club Meeting
August 12	<b>Annual Club Picnic</b>
September 9	Regular Club Meeting
October 14	Regular Club Meeting
November 11	Regular Club Meeting

AARC - PUBLIC SERVICE SCHEDULE

DATE	EVENT
April 6	MS Walk
June 7	MS Bike Tour, Day 1
June 8	MS Bike Tour, Day 2
August 2	Mountain Mama Bike Tour, Monterey
November 1	Montpelier Horse Races

Please sign up at meetings when the SIGN UP CLIPBOARD is passed around. You can also send an email to Greg (N4PGS) indicating your interest in working particular events.