

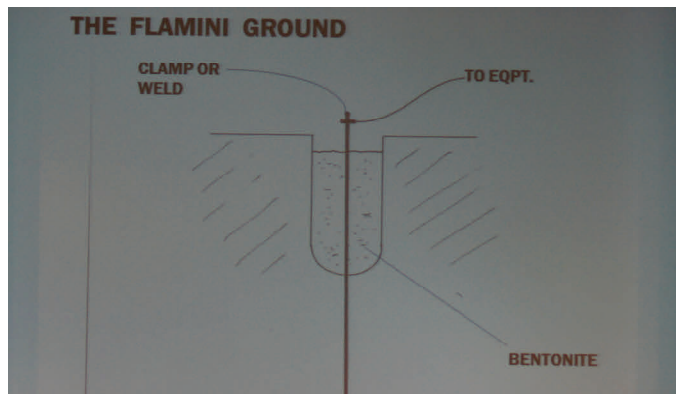
# THE AARC BEACON

A monthly publication of the Albemarle Amateur Radio Club

VOLUME 2012, No 5

MAY 2012

Remembered as 2011 Dayton Hamvention "Ham Club of the Year"



Well done to Joe Flamini W4BXG for his comprehensive and informative presentation on grounds at the April meeting. Joe discussed in detail the various grounds for RF, Shock (Safety), and Lightning....thank you Joe !!

Bill Phillips, AD6JV, is shown operating his Elecraft K3 Transceiver to 21.23235 MHz during the Cruise-In. His station generated quite a bit of interest to a potential future Ham family.

- SHOCK GROUND (or safety ground)
- LIGHTNING GROUND
- RF GROUND

Through a cloudy and overcast beginning, the Third Annual Cruise-In enjoyed warm sunshine, cold blustery rain, and back to thick cloud cover all during the six-hour period of the event.

Despite the weather anomalies 38 persons signed in of which 14 were non-club members. Some of the discussion groups enjoyed rapt attention of a goodly number of attendees. Some radios were programmed and some equipment traded hands during the swap meet part of the day.

The HF GOTO station drew a lot of attention and attracted a few potential amateurs. There was a great deal of interest in the vehicle wiring demo by Marty W4MBW and many confessed to learning from the experience.

Also our appreciation to Dave Damon (K4DND) for arranging interesting Public Service presentations for the March 2012 meeting. Both were well received and generated lots of discussion.

The largest group of the day surrounded the Solar demo by Linda KI5LLB and Roland KK4EDU which occurred during the brightest and warmest part of the entire day.

For May 2012, Travis Koshko will be discussing Severe Weather which will be of great interest form many perspectives including amateur radio.

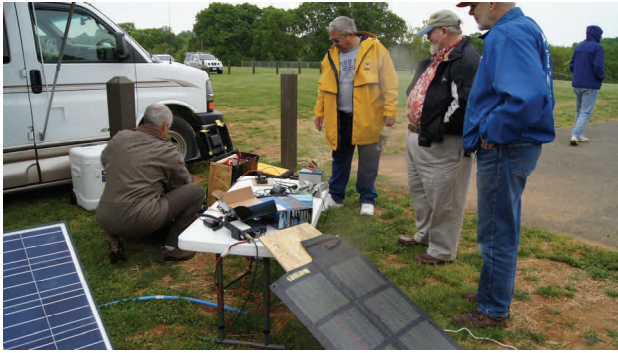
While attendance did not surpass our initial event three years ao, those who did participate enjoyed the activities and did not let the cold rain dampen their enthusiasm. There was much laughter and some intense conversations resulting in a great deal of looking, listening, and learning.

For June 2012, we will be having Ken Reitz, Features Editor, at Monitoring Times, a monthly publication about all things radio. He'll be talking about the Future of Amateur Radio.

The weather dictated a bit of condensing of our program schedule which resulted in our closing out a little early.

Some great topics coming up !! 73, Carter WD4AYS

Jim Crosby—K4Jec



Roland KK4EDU demonstrates the solar powered battery backup system to guests and members.



A few items brought to the Cruise-In for "swap/purchase"



Don, N4UVA, and Jim, K4CGY having a nice discussion as Jim enjoys the "hot stew" brought by Roland KK4EDU.



Members and guests had a great time in spite of the cold and damp weather conditions.

## AARC APRIL 2012 BOARD AND GENERAL MEMBERSHIP MEETING

### Board Meeting

**Call to order** – President Jim (K4JEC) called the board meeting to order at 7:10 pm.

The following members were present: K4JEC, WD4AYS, K4PMC, K4DND, A4DH, KA4JJD, K4BAV and K4CGY.

**Secretary's Report** – Pat (K4PMC) asked for approval of the board meeting minutes from the March Board Meeting that appeared in the April Issue of *The Beacon*. Minutes were approved as published. We have one new application from Shannon Tevendale KJ4VJR for approval this evening.

**Treasurer's Report** – Don (N4UVA) was absent but filed his report with the president.

Balance \$	6,561.56	\$5,730.86
Debits \$	454.87	\$ 183.13

Credits \$	468.98	\$ 1,013.83
Balance \$	6,575.67	\$ 6,561.56

**Vice President's Report** – Carter (WD4AYS) – Advised we have a well grounded program for this evening.

**Technical Committee** – Jim (K4CGY)— Nothing has changed.

**Fund Raising Committee** – Michael (KA4JJD) Listed some excellent raffle prizes for this evening. He also reported to the board that the idea of offering a free raffle ticket to those who buy raffle tickets and are wearing a Name/Call badge, clothing, etc. presenting their name and call. The board approved the report and motion for the remainder of the year as a trial period.

**Education Committee** – Bill (AD6JV)— Bill was absent.

**Public Relations Committee** – Jim (K4BAV) – Reported that Harry W2HD

requested that the motion tabled last week concerning member ID badges be permanently left on the table.

**Public Service Committee** – Dave (K4DND)— Nothing for the board.

**Estate Committee** – Dayton (AA4DH) – Dayton reported that he had a possible contact for assistance in disposing of an amateur's radio estate. He said he would keep us posted.

**President's Report** – Jim (K4JEC) – The Skywarn class registration stands at 39 as of this time. Registrations for the Cruise-In are starting to come in and stand at 22 at this time. We have non-member registrations from South Hill, Fredericksburg, Henrico and Waynesboro so far. We are 18 days out from this event and we are at the point where we can guarantee a successful one. To fulfill participants requests, we are filling the day with discussion groups to offer



## AARC MEETING CONT:

focused discussions concerning topics of interest to amateurs, the informal swap or sale of amateur radio equipment, a HF GOTO station and an opportunity share ham radio software for programming – all lining up to be a fun day in the park. To quote Jim Wilson, we are reinventing the Cruise-In. We also expect to have a raffle courtesy of Michael Rein.

**New Business** – No new business to come before the board?

**Old Business** – Nothing from the board.

**Board Meeting was adjourned at** 7:27 p.m.

### General Membership Meeting

**Call to Order** -- President Jim (K4JEC) called General Membership Meeting to order at 7:30 p.m. and invited everyone to introduce themselves. He called on Michael KA4JJD to present the items to be raffled off this evening.

**Secretary's Report** – Pat (K4PMC) asked that the minutes of the March meeting as published in *The Beacon* be approved. They were approved as published. She advised that we have 141 members on the roster at this time. We have only 18 still to renew for 2012. We have an application for membership from Shannon Tevendale KJ4VJR. He lives out in Earlsyville and holds a Technician License. Dave Damon K4DND pointed out that we have several ghost members on the roster in the person of youth members who have graduated and moved away. He suggested they be dropped to reflect a truer member count. President Jim reported that we needed a way to identify them so they can be removed.

**Treasurer's Report** – Don (N4UVA) was absent from the meeting but filed a report with the president.

	<u>Current</u>	<u>Previous Mo</u>
<u>Balance</u>	\$6,561.56	\$5,730.86
<u>Debits</u>	454.8	183.13

<u>Credits</u>	468.98	1,013.83
End Bal	6,575.67	6,561.56

**Vice President's Report** – Carter (WD4AYS) – Made a pitch for presenters among the members to come forward and offer a program on any amateur radio related subject.

### Committee Reports

**Technical Committee** – Jim (K4CGY) – Jim advised that everything is the same and that they expect to visit the MJH location in the near future to check out that 444 repeater operation.

**Fund Raising Committee** – Michael (KA4JJD) – Michael said that he would be selling raffle tickets at the break.

**Education Committee** – Bill (AD6JV) – Jim reported for Bill who was absent. He stated the Tech Class is progressing and that the Skywarn Class now numbers 41.

**Public Relations Committee** – Jim (K4BAV) Jim reported that it was time to start promoting Field Day and we need a reprint of the club brochure.

**Public Service Committee** – Dave (K4DND) – Dave asked for volunteers to help with the Miller School Loop Bike Race May 27, Devil's Backbone race on May 5 and the MS 150 bike race on June 9 & 10. He circulated a clipboard for members to sign up to help.

**Estate Committee** – Dayton (AA4DH) – Dayton had to leave following the board meeting however Jim reported that he had a potential amateur estate to work on and that he promised to keep us posted.

**President's Report** – Jim (K4JEC) – Skip Thacker mentioned at last Month's meeting that next year will be the 50<sup>th</sup> Anniversary of the club. This is a milestone in any organization and we should plan a year of celebration culminating with our 50<sup>th</sup> Annual Awards Dinner in December of 2013. We need to start the planning for our 50<sup>th</sup> year right now. Who among you would be willing to serve on a 50<sup>th</sup> Anniversary Planning Committee? Looking around this

room, I think I can say that the majority of us will not be around to celebrate the 100<sup>th</sup> so we better make the 50<sup>th</sup> celebration a good one. He said he was going to take a page from Dave's playbook and circulated a clipboard for members to sign up for several committees such as August Picnic/Auction, 2012 Field Day, Annual Awards Dinner Committee, as well as the 50<sup>th</sup> Anniversary Committee for the year 2013.

Registrations are stacking up for the Skywarn Class on Thursday, April 19, at 7 pm in Room A of the Albemarle County Office Building South. They currently stand at 41. The class will be taught by personnel from the NWS in Sterling and will result in your being assigned a Spotter ID for reports you may send in from time-to-time. Those who already have a Spotter ID will benefit from the up dated presentation.

Registrations for the Third Annual Cruise-In set for April 28 are starting to come in and stand at 22 at this time. We have non-member registrations from South Hill, Fredericksburg, Henrico and Waynesboro so far. We are 18 days out from this event and we are at the point where we can guarantee a successful one. To fulfill participants requests, we are filling the day with discussion groups to offer focused discussions concerning topics of interest to amateurs, the informal swap or sale of amateur radio equipment, a HF GOTO station and an opportunity share ham radio software for programming – all lining up to be a fun day in the park. To quote Jim Wilson, we are reinventing the Cruise-In. We also expect to have a raffle courtesy of Michael Rein. Anyone have any thoughts or ideas to offer? I urge you to put this event on your calendar and make your reservation as soon as possible. You can register online on our club website or you can send me an email. Put your email address on the blackboard.

The Plan of the Day is coming together

## GENERAL MEMBERSHIP MEETING, CONT.

with the tentative

### Cruise-In Schedule of Activities

**10 am - Repeater Use & Protocol** discussion group led by Jim K4CGY

**11 am - Handheld Radios** discussion group led by (To Be Determined) (Bring your handhelds)

**Noon - Picnic time - tailgating party time.**

**1 pm - HF GOTO Station** operation and discussion led by Bill Phillips AD6JV (Station will be running most

of the day)

**2 pm - Mobile Ham Station Wiring** discussion group led by Marty Wangberg W4MBW

**3 pm - Emergency & Portable Logging** on the fly discussion group led by Jim Crosby K4JEC

### **Ongoing activities:**

**Swap Meet** – Selling, swapping or trading of amateur radio equipment

**Amateur Radio Programming** – Bring your laptops and any program-

ming software you have available to offer others.

**Old Business** – None offered

**New Business** – None offered

**The Program** - Carter (WD4AYS) introduced our speaker and program for the evening. Grounding by Joe Flamini. The program was excellent and well received.

**Adjournment** – The Meeting was adjourned at 9 pm.

## PRESIDENTS LETTER, JIM K4JEC

Compared to the earlier months this year, May promises to be a relatively quiet one for our club. It looks like we are going to kick the month off with another of our public service events on Saturday, May 5, with the Devil's Backbone Mt Cross in Nelson County that will be followed by our regularly scheduled monthly meeting on the second Tuesday, May 8, at the National Radio Astronomy Observatory at 7:30 pm. The next public service event will be on Sunday, May 27, with a Miller School Loop Bike Race.

I am very proud of the way our membership has turned out to support all of our club activities but especially our public service events because they do involve a significant personal commitment. I am pleased to announce the receipt of a \$280 donation for our efforts working on the Devil's Backbone race last month.

The next significant event for our club will be the Field Day activities which promise to be special this year with an all out effort to best last year's points to continue our climb up the points scale we have enjoyed for the past couple of years. I have to confess that I passed up participation in any Field Day for far too many years feeling it had nothing to offer me. It took being a club officer to get me to actually show up for my first one. Well, I am here to tell you that I am so sorry it took so long for me to get wise and realize how much fun Field Day really is and wouldn't think of missing one again

without some extreme circumstance to make it necessary.

During our last meeting, I circulated a sign-up sheet for various committees with a cover sheet that stated, "Do Your Duty, Serve Your Club, Sign Up Now!" Many of you responded and hopefully many more will step forward to fill the club's needs for various committees. You are invited to join any one of these committees at any time.

The first of those committees is the 2012 Field Day Committee. Jim Owen K4CGY and Bill Pond N0WP will join Dennis Terribile WR4I for a three some to oversee this year's Field Day Operations. Please pitch-in and do what you can to help this committee produce a great Field Day for the club. All who show up to work for Field Day will also be considered members of this important committee.

The next committee sign-up sheet is the 2012 Summer Picnic/Auction Committee. This sheet was signed by Dennis Mennerich K4THE, Jim Owen K4CGY, Glen Miller KK4HUL, Bill Pond N0WP and Elmer Scott KF4UCI. I would like this committee to get together in the next 30 days to elect a chair and begin planning for the August event. Meetings can be held by email, conference call via telephone or club repeaters or any other manner that will serve the purpose.

A sign-up sheet was circulated for the 2012 Annual Awards Dinner to be held the second Tuesday in December. This is the social highlight of the club year and should be the subject of some considerable planning. Our Vice President, Carter Elliott WD4AYS will serve as chair of this committee and will be joined by Dr. Michael Rein KA4JJD and KF4UCI Elmer Scott. Membership is still open on this committee and I hope more will step forward. As to planning for this event, everything is on the table from location to agenda.

The next important committee for the club is the 2013 50<sup>th</sup> Anniversary Committee. This committee will have from now until January, 2013, to plan an appropriate year-long celebration of the 50<sup>th</sup> year of the club's existence. The initial committee members are: Dr. Michael Rein KA4JJD, Michael Wolfe KK4AMI and Jim Owen K4CGY. They will need help and so you are invited to join this committee by sending me an email stating your interest. Again, everything is on the table for this important event and the committee will need lots of ideas and suggestions. Use your Club Directory and contact the members of this committee with your thoughts.

It has been said that "Nothing is accomplished by committee." Nothing could be further from the truth because no one of us is as smart as all of us working together with a common goal!!!



## “ S ” METERS AND OTHER INFO; HARRY W2HD

It was many decades ago when I first looked at an “S” meter on my Dad’s receiver and learned that the reading was an indication of the strength of the other station’s signal at our location. It was years later that I learned that an S-9 signal was the reading when a signal was 50 micro-volts at 50 ohms receiver input impedance. This was not a mandated standard, but a standard that was accepted by many of the receiver manufacturers at that time. In fact, a Collins receiver S-Meter (and the Collins name was related to really true excellence in those days) as shown in a Web picture was indeed meeting that accepted standard. S-9 was at the center of the meter scale. Other manufacturers of quality equipment in the early ‘50’s also displayed the same status.

Further research into the history of the non-mandated standard shows that in 1981 the International Amateur Radio Union (IARU) of Region I (Europe and Africa) agreed on a technical recommendation for S-Meter calibration of transceivers supporting the earlier S-9 recommendation. This same report also confirmed the idea that an “S” unit on such meters should represent 6 decibels (dB) which is equivalent to a power ratio of 4 times. Also included was a statement that signals stronger than S-9 should be shown as an additional 10 decibels and stated verbally as S-9 plus 10db or more if the signal is very, very strong. There are transceivers manufactured today by reliable companies which show such figures.

The above is really a background description of a little history for information purposes. The reason for its inclusion is to express some points on relative strength of our radio signals as received at the other stations we contact. You will hear some interesting comments on the air about increasing signal strength and methods for achieving this improvement. There is a prominent manufacturer of transceivers who sells a unit which has the ability to go from

100 watts to 200 watts output. Wow, isn’t that great! However, simple math shows that twice the power is only an increase of 3 dB. Is that worth the half “S” unit change at your receiver. Well, it could be under some conditions, but is seldom worth giving up some other feature in the transceiver. Four times the power provides a worthwhile improvement resulting in one “S” unit increase and that represents a point to be considered. However, an amplifier to give that increase is probably a 500-watt unit and costs a bit more than you may wish to spend.

Going a bit further with improving that “S” meter reading, a really big improvement is looking into the antenna system. A lightweight multi-band beam is not as expensive as the amplifier and can produce results which exceed the amplifier performance and give you an added improvement in reception by putting your signal into the position for 360 degree effectiveness! Of course there are band considerations because beams for the lower HF bands become a bit more difficult to accommodate.

Incidentally, I run a KW and a beam which gives me almost two “S” units in power alone, but I use that power on one band only. Most of the time, my needs are met with 100 watts or less and QRP operation is still one of my favorite operational practices. In New York, all 48 States were worked with 3-watts and after moving to Virginia all 50 States were worked with the same power and Worked all States was then 50.

One final word about POWER... Don’t go to that extent until you have looked into other options. It costs more in equipment investment and the cost on your electric bill. You can still have lots of fun with lower power and the feeling of accomplishment under those conditions.

73 /s/ Harry, W2HD



Each month we will attempt to add some “technical information to the newsletter. The first is submitted by Joe Flamini on the “care and feeding” of 12V lead-acid batteries.

**LAB NOTES** Joe Flamini W4BXG

CARE & FEEDING OF 12-VOLT LEAD-ACID BATTERIES

**3 STAGES OF CHARGING:**

1. BULK CHARGE - AT MAXIMUM SAFE CURRENT UNTIL 70% - 75% CHARGED.
2. ABSORPTION CHARGE - CONSTANT VOLTAGE - CURRENT TINKERS OFF AS BATTERY REACHES FULL CHARGE. CHARGE VOLTAGE = 14.2 TO 15.5
3. FLOAT CHARGE - WHEN FULLY CHARGED, VOLTAGE IS KEPT CONSTANT AT 13.2 - 13.9 OR SO. CAN BE AS HIGH AS 13.9, BUT 13.2 WILL MINIMIZE GASSING - IMPORTANT IN A GELLED - ELECTROLYTE BATTERY.

TO MAXIMIZE BATTERY LIFE, AVOID CHARGING AT A RATE GREATER THAN C/8. CAPACITY IN AMP-HRS = 8 X I.A., IF A 220 AMP BATTERY, LIMIT CHARGE CURRENT TO 27 AMPS.

AN O.K. MAINTENANCE CHARGER:



## HOW A HAM BECAME A MULE SKINNER

A few weeks ago, as a part of a team of people who are called out for Search and Rescue work, I got a call to help in the search for a missing/injured hiker who was reported to be on the Appalachian Trail (AT). I got the message a little after 9:30 PM and by 11:30, I was signing in at the Incident Command Center in Troy, Virginia. As severe weather was closing in on the search area, the decision was made not to put any additional people in the field that night. But please, would I come back tomorrow morning to help resume the search.

In the short time I remained at the Command Center that night, it seemed that communications were rather limited, and as a newly minted ham radio guy, I thought I should come back prepared to assist as needed. So first thing the next morning, via email and telephone, I leaned on Dave, K4DND, and Bill AD6JV for a crash course in frequencies, repeaters, equipment, etc.

Upon signing in at the Command Center at mid-morning, I was told to relieve a person who was stationed at the parking lot where the AT crosses Rt 56 above Troy. The job was to intercept any hikers going north or south along the AT to see if they had sent the message about this missing person or had any other helpful information. The lady I relieved said there was an equine team working the trail to our north (aboard a mule and a horse), and later I found out that a dog team was working the trail to the south.

While at the parking lot, I did have a few repeater-assisted radio conversations with other (mobile)

hams. Interestingly, reception, while a bit poor at the parking lot, was at least possible. Later I discovered it was impossible to hit the same repeater from the Command Center. As things often go, I did not have an "AT customer" in the 4 or 5 hours of "manning" that position, but toward the end of that time, I could hear the equine team making their way down the very rocky trail that would ultimately lead across the Tye River and Route 56 to where their horse trailer was parked.

About that time, I could hear severe weather approaching from the SW, and shortly thereafter, a runner from the Command Center informed me that I was to immediately return to base and avoid being caught in the approaching storm. Well, I really wanted to meet this equine team, in particular, I have a thing for mules. So I waited until I could see the team, or at least one of the team and his horse. It turned out that the mule was refusing to cross the Tye River, at all.

Well, there is a little known section of the General Class Manual that relates to how mules work, well, there should have been. So across the road and down a bit of the trail, I came across the horse guy and asked if I could help. He said sure, if I would cross that suspension bridge and get behind the mule to "push him" and help his rider get him across the river.

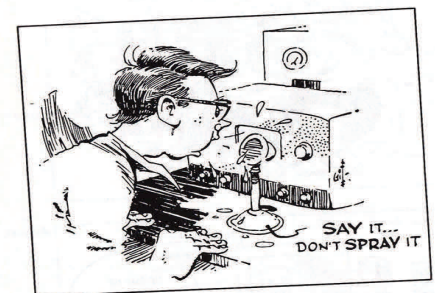
OK, so over I went, and employing some of the cattle handling training that I have picked up in the last year or so - walking in a certain manner alongside and across the rear of the mule (and staying well out of range

of the feet of that critter), I was able to help get the mule out of the trees and to the bank of the river. Hmm, no deal from there, no matter how much of my sophisticated animal handling I employed. The lady that owned the mule then simply threw me a little branch that was floating in the river, and just a light prod with that thing, and the mule had all four feet in the shallows, but would go no further.

Being a dauntless Ham Radio guy, I waded right in, well not over the tops of my hiking boots, and gave the mule another little poke. With a jump, suddenly he found himself in the middle of the river, and he figured he might as well go the rest of the way and join his buddy, the horse, who had already crossed.

So my major contribution that day was to help get a mule across the Tye River. Just another day in the life of the Daytona Ham Fest "Club of the Year," eh what? Now if you look very carefully in the **Revised**, Extra Class Manual, there is a question on communications with equines employing the latest high tech.....

John, KU4KAE



November, 1984

Courtesy; The Gil Cartoon Book



## THE BEACON MISSION

The official newsletter of the Albemarle Amateur Radio Club, Inc. will strive to communicate with, enlighten, and entertain the members of the club in strict compliance with the official word of the club as set forth in the Articles of Incorporation and Bylaws as administered by the officers and directors who constitute the Board of Directors. The newsletter shall be published monthly on or before the 1st day of the month of issue. The deadline for submissions shall be the 25th of the month preceding the month of publication. The primary role of the publication shall be to promote upcoming activities, report past activities and accomplishments of the club and its members, carry the minutes of the preceding month's Board Meeting and General Membership Meeting, include an official club calendar of the month, as well as, become a recorded history of the club by the archival of all past issues as paper copies contained within a single notebook for each year of publication.

## Hams Helping Hams

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### AARC Club Repeaters

- 146.760 (-) 151.4 Hz Tone
- 146.925 (-) 151.4 Hz Tone
- 146.895 (-) 151.4 Hz Tone
- 224.760 (-) No Tone
- 444.000 (+) 151.4 Hz Tone
- 444.250 (+) 151.4 Hz Tone

**Albemarle Amateur Radio Club, Inc.**

**Post Office Box 6833**

**Charlottesville, VA 22906**

**[www.albemarleradio.org](http://www.albemarleradio.org)**

**Marty Wangberg W4MBW.....Newsletter Editor**

**Bob Dorsey W4RQ .....Newsletter Editor Emeritus**



**AARC Elected Leadership 2013**