



The Beacon

A monthly newsletter of the Albemarle Amateur Radio Club serving Central Virginia

Celebrating our 50th Anniversary

May

2013

Club Meeting Set For May 14

The Albemarle Amateur Radio Club will hold a meeting of its board of directors at 7 pm on Tuesday May 14th followed by a general meeting of the membership at 7:30 in the auditorium at NRAO. Both meetings are open to all interested parties. This month's program will feature a talk by Bob Pattison, K4DU on the Dayton Hamvention, how it began, why it is such a special event and how to survive going to one. Fun fact: The Dayton Hamvention isn't held in Dayton, Ohio. Do you know where it is held? We hope to see you there

Fox Hunting – We're Getting There

By Mike Elliott, K4WDV

I thought it was a great picture...it captured the builders and their excellent results from our 2m Tape Measure Beam building session! After proudly showing the picture to my wife while explaining the concept of fox hunting, she looked at me and said, "And what exactly, does Fox Hunting have to do with Ham Radio?" I quickly switched from being proud, to feeling like I needed to justify the time put into this and other club events. So quickly, I tried to recall some of the comments I'd heard from the club meetings when we first discussed Fox Hunting. "Uhhh, there are times when we might need to find the source of RF interference that's compromising our ability to effectively use the Ham Radio frequencies assigned by the FCC. And any type of activity that helps us as



individuals learn more about antennas, signal reception, and related technology plays right into the Amateur Radio mission 'to advance the state of the art'...or at least increase our awareness of the art." There—I was feeling proud again—but I couldn't help adding, "and remember when we'd watch 'Wild Kingdom' (the one sponsored by Mutual of Omaha), where the people would use funny looking hand-held antennas to track the lion with the radio collar? Well, we're doing nearly the same thing." And to me, that stuff was like magic—I loved it!

I could tell by her facial expression, that we don't feel quite the same way about 'Wild Kingdom'...and I'm pretty sure I still wasn't off the hook. That's when I threw in the Ace up my sleeve and

said, "Well, you know how most of the guys I know get together to play golf at least once a week and on Friday evenings they gather to play Poker? Well, I'm not doing that—so I should be able to play radio every now and then! And for me, this is fun!" Worked like a charm...I think she said something to the effect of, "You're right. You need to have fun." Winning!

Well, for the uninitiated (like me, until I looked it up), the key elements for a Fox Hunting event are, 1.) A Fox Transmitter, 2.) A mobile receiver—we'll be using a 2m frequency, 3.) Tools to help with RDF (Radio Direction Finding), and 4.) Participants! Oh...a car will come in handy too...and if you can call some of our friends with rotatable beams at their base stations, they could probably pass on

some helpful directional information relative to their locations.

Well, thanks to Paul McKee, AK4OH, we have the Fox Transmitter. Mike Gilmore, K8RVR and I tested it out at a nearby park on a recent Saturday morning and it worked beautifully! Mike and I both used our HTs for the receiver component and used a few of his directional antennas and realized that we'll have to get pretty good at triangulation to really make good progress in finding a well hidden Fox. A beam antenna used a few thousand feet from the Fox gave us decent directional information to help narrow our search.

Once we were close in, we found that even without an antenna attached, the HT could pick up the signal perfectly from several hundred feet away...that's not a good thing in this case. That's where the attenuators come in very handy. Mike had an offset attenuator that allowed us to sneak right up on the Fox – probably to within a 20 or 30 foot radius.

Now, although we haven't actually held a real Fox Hunt yet, we're getting close, and for me, the excitement is building. To help some of us prepare we figured we might need some help in the "Tools" category. Like several other interested club members, I have a HT, but I have no specific tools to aid in RDF. So, we found a few Internet references to build plans for "Tape Measure Beam" Antennas. These antennas are relatively simple to build, use off-the-shelf components, are low cost, and yet supposedly provide solid RDF capabilities. We set off on Friday evening, April 12th at a location just off the downtown mall in Charlottesville provided by AJ Miller, KE4AJM (to whom we owe a huge debt of gratitude—THANKS AJ!) to build antennas for every person interested in attending based off of the webpage at http://theleggios.net/wb2hol/projects/rdf/tape_bm.htm. And what a great time it was. Mark Whitus, AK4OL with assistance from Roland Beard, KK4EDU led Linda Beard, KI5LLB in customizing and assembly of her antenna in one room, while I worked with Mike (K8RVR), AJ (KE4AJM), and Jim Wilson, K4BAV out in the hallway to do the same.

In the end, we had 5 antennas that all smacked of high-quality workmanship and after checking them out with our antenna analyzers, we unanimously agreed to chalk this event up as a great success. The only thing we'll change next

time is to plan on getting together earlier to give ourselves a little more time and having pizza brought in.

If you're interested in joining us during our upcoming inaugural fox hunt where we'll put these RDFs to good use, feel free to catch up with one of us at the next meeting – even if you just want to ride along and enjoy a cup of coffee from the comfort of a car during the chase, we'd love to have you!

And heck, if you need an excuse for your spouse, you can tell them that you need to have some fun in your life—and it's either this or Poker night with friends! ;)

73, Mike (K4WDV)

President's Remarks

By Bob Pattison – K4DU

Repeater Use

"Hello CQ, is anyone out there, anyone at all?" – These words are taken from a scene in Orson Welles' 1938 Mercury Theatre of the Air production of H.G. Wells "*The War of the Worlds*". But they could at times be applied to our repeaters. This statement is applicable not just to our repeaters, but many repeaters in other communities as well.

We have an excellent repeater system here in Central Virginia and it is improving every day. We also have a reputation as a friendly community. It is not unusual to hear people whose calls are new to us. Often these are tourists, parents of students or people who are here for a loved one in the hospital. Sometime these are the voices of new hams reaching out for the first time anxious to make contact and excited about the possibilities. How we treat these folks says a lot about us, our community and our club. People make judgments based on our response or lack thereof.

In the scene from *The War of the Worlds* the audience perceives that no one replies to the ham calling CQ because all of the stations within ear shot have been destroyed or their operators are fleeing for their lives. They have a reason for hearing silence in response.

Do you listen to the repeater when you are in your car or in your shack? Do you respond to stations that announce their presence? Are you ready to respond to someone you do not know? Are you ready and eager to answer questions, provide assistance, offer directions or information about our club and welcome

folks to our fair city? I hope so. This is what should set the ham radio community apart throughout the United States. But this is especially should be what sets the AARC apart from other clubs in Virginia. We are and should always be a welcoming community. As hams it is part of our DNA.

So the next time you hear "KE4... listening." The right response is "loud and clear".

73 de K4DU

A great resource

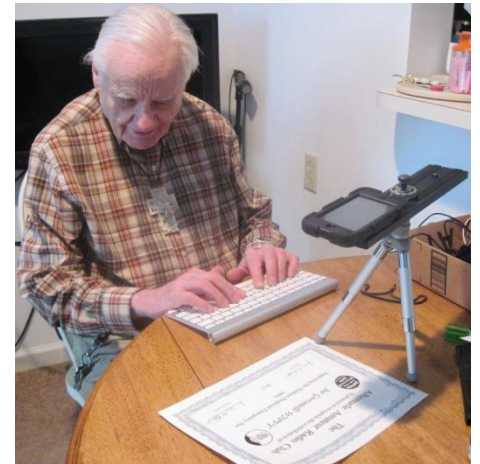
By John Green – KX4P

Electric Universe by David Bodanis, Crown Publishers, 2005 is an interesting book on the history of electricity. It includes Faraday, Maxwell, JJ Thompson, Morse, the trans-Atlantic telegraph cable, Hertz, Marconi, development of Radar in WW II, computing, etc. It has an interesting account of the role of an Charles W. Cox, amateur radio operator, in the capture of a high frequency German radar, pp. 133-139. Plus, much more bringing us up through the computer, etc. This is not very technical but very informative on the historical development of electronics - an enjoyable and easy read.

Apps and the blind

By Joe Giovanelli – W2PVY

It seems as though everybody has an IOS or Android device. There are so many apps (applications) which can do just about anything except to make coffee or wash the dishes.



Blind people are constantly struggling to keep up with new technologies just to stay even with those in the sighted world. Can we blind folks have a part in the phone and tablet world? Think about this for a moment. A sighted user sees what the screen of one of these devices

shows, makes his choice from the icons he sees, and then touches the screen to open what's behind the icon. The blind person who wants to use such a device can't know where to touch the screen. It seems hopeless, right?

Enter Apple. This firm sells most of the tablets and phones these days. Someone in that firm thought that blind people should be able to use its equipment. From the earliest days of this company's existence, the leaders wanted blind people to have a share in using its gear. How did the company make it possible for us to use these units?

The first thing which was done was to include synthesized speech so that what is on the screen can be spoken. Recognizing that the way the sighted people use the screen is of no use to us, the firm designed a different set of gestures from what the sighted people use. Essentially the blind user touches the screen and as he does this, he hears the names of the icons he touches. To open one of these, he takes one finger and taps the screen two times quickly. This is called a "double-tap." This opens the choice desired by the user.

Sometimes it's necessary to type data into the machine. To do that, the user slides his hand around the screen till he hears the letter or number he wishes to write. He lifts his finger from the screen, and the number is entered.

Although this technique permits a blind person to type, it is a slow and tedious process. Apple again came to our rescue with a keyboard. Not only does this keyboard help us type more easily, but it also has some special tricks. The double-tap is simulated by pressing the up- and down-arrows simultaneously. Sliding across the screen is imitated by pressing either the left- or right-arrow keys, depending upon the direction of the desired movement. Suffice it to say that there are more specialized gestures which can be produced with various key combinations.

When speech is turned off, the machine reverts to its normal operation.

In later models there is Siri. "She" can take dictation; look up things on the internet and much more. This was not designed just for us; it's a part of the OS.

Along with all this, some apps have been designed to help blind people make better use of these devices. I use one such app to permit me to identify bill

denominations. I use another one to help read mail or documents.

These two apps depend on OCR (optical character recognition). On the back of the iPod Touch (in my case) is a camera. This takes a picture of the bill or document to be scanned. In essence the tablet is held above the object, and, when all is ready, I press a button on the iPod or the keyboard. A picture is taken, and then the software "evaluates" the captured image. Then what was scanned is shown on screen, and is also "read" as audio for me.

My problem was that I couldn't always hold the machine steady while the picture is snapped. It turns out that I have a little tripod designed for use on a table top. Its height is adjustable. I also have a tripod mount used to support two cameras. The iPod rests on that platform with the end of it moved so that it is just past the end of the mount. This permits the camera to have access to the document being examined. Ron, K4RKA, helped me with the adjustments.

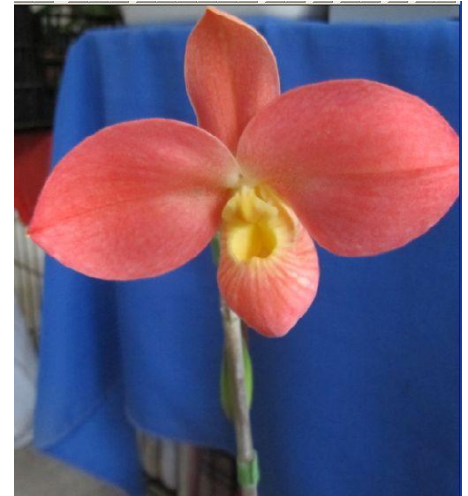
We found that reading an envelope requires a lower height above the document, and the reading of a full page requires a greater height. Fortunately these two height adjustments are easily found because they correspond to click stops on the tripod. (See picture below)

There is so much to all this, but I hope this short article demonstrates how we blind people can stay in the mainstream of today's technology.

From Haggis to Orchids

By Ron Richey – K4RKA

It is nice to know that the people in our amateur radio community have many talents other than being able to talk into a microphone. Who would have guessed that two recent appearances on 2 meters would be a cook and a horticulturist?



KV4MV, Mike McPherson, cooks haggis for the "Men Who Cook" fundraiser, and KB4EPK, Larry Eicher, has won awards for his beautiful orchid. His next goal is a General license for which he is currently studying...



Jim – K4BAV and son Mark all dressed up for their thespian roles in a history documentary.

The Dayton Hamvention

By Bob Pattison, K4DU

On May 17th, 18th and 19th the Hara Arena complex will become the center of the amateur radio universe. Now this may sound like hyperbole to some, but only to

The Beacon

The Beacon is the official newsletter of the Albemarle Amateur Radio Club, Inc. It 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. 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 meetings, as well as, become a recorded history of the club by the archival of all past issues.

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Jim Crosby K4JEC – Editor
Albemarle Amateur Radio Club, Inc.
Post Office Box 6833
Charlottesville, VA 22906

those who have never been to the Hamvention. What is so special about Dayton? What has made this gathering that started in 1952 with 300 attendees grow to the largest hamfest in the world with over 25,000 in attendance? These are the questions that I will be grappling with in my presentation to the AARC in our May meeting.

This year will be my 19th pilgrimage to Dayton. Over the years I have learned a lot and enjoyed each and every journey. The AARC has a special relationship with the Hamvention. Yes, we were club of the year in 2011, however among our ranks we also have one member who was recognized as "Ham of the Year" and another that was a grand prize winner.

This show is so big you simply cannot see everything. There will be 500 commercial exhibitors indoors and over 2000 vendors in the flea market. In addition to that there are five forum rooms, each capable of seating 100 attendees or more. For a list of Forums go to www.hamvention.org

If there isn't something on the forum list that interests you, please check your pulse. Of course I have yet to mention the outside activities that take place around the Hamvention. The QRP Amateur Radio Club International sponsors "Four Days in May", there is a "Dxer's Contest Super Suite", a "VHF Weak Signal Banquet" as well as other affiliated events. You simply have to plan your time. You cannot do it all, you cannot see it all.

So I hope that I have succeeded in wetting your appetite. Dayton isn't a hamfest, it is an experience.

100th Anniversary of Amateur Radio in Disaster Services

"SOS Hilltop Business Men's Association wants city to send boats.....Supplies will last until about tomorrow..... Men are hanging on trees.....Send supplies..... Water is receding.....Try and get us water and gas..... People are suffering..... Send this to Mayor Karb at once..... SOS." It was with these words sent by a 15 year old teenager exactly 100 years ago that Amateur Radio entered into Disaster Service.

Herbert V. Akerberg was a student at West High School in the Hilltop

neighborhood of Columbus, Ohio when he anxiously tapped out that Morse code message on the afternoon of March 26, 1913.

A slow moving storm had dumped 11 inches of rain over much of Ohio's already saturated soil. In Zanesville the Muskingum River was cresting at 27 feet and 20 feet of water stood in her intersections. Five of the town's seven bridges were washed away. Only the tips of the lampposts of the famous "Y" bridge could be seen.

In Defiance, Ohio the Maumee River rushed in 10 feet above flood stage and covered 268 homes. Rowboats plucked people from trees and rooftops everywhere. In Tiffin help came too late for several. Nineteen people waiting on their roofs for help, perished when their homes collapsed and they were swept away by the Sandusky River.

On the west side of Columbus, where young Herb Akerberg was manning his station, the Scioto River crashed through the downtown dumping flood waters 17 feet deep into his neighborhood. Thirteen people were rescued.

"For about three days and nights, practically continuously for seventy-two hours, young Akerberg remained on duty at his radio set, in communication with the radio station on top of the Huntington Bank Building, sending messages to the mayor and keeping the public advised as to the conditions on the devastated West Side. Many messages were sent to the friends and relatives of those in the devastated district." **C. B. Galbreath-Author "The History of Ohio."**

The greatest destruction was in the areas around Dayton, where the rushing waters of the Great Miami River washed away homes and bridges claiming hundreds of lives. In Dayton 360 souls were lost, 3,400 domesticated animals and horses perished, 65,000 people were displaced and 20,000 homes were destroyed. Damage, in today's dollars, exceeded \$2 Billion.

The flow of the Great Miami River through Dayton during that Easter week storm in 1913 was equivalent to the same amount of water that spills over Niagara Falls in a month! In nearby Hamilton four-fifths of the town was covered and 400 people lost their lives.

"People talked about how fast the waters rose, sometimes one or two feet per hour, and there wasn't any way of sending warnings downstream because of

the downed wires," she said. "There was no radio then except for a few ham radio operators, and the 1913 Flood is what triggered the legislation to create an emergency broadcast system."...Trudy E. Bell-Author "The Great Dayton Flood of 1913."

Back in Columbus, Herbert Akerman, pounding brass from his home shack is joined by the station from Ohio State University. Unlike Akerman, the OSU students are not proficient in Morse code. To the North of Ohio, B.N. Burglund at the University of Michigan station was unaware of the flooding in Ohio until he intercepted a call from an operator in Freemont, Ohio who reported that the town was under water and that the Captain of the Port Townsend Life Saving Station had drowned while attempting a rescue. The operator reported that all telegraph and telephone lines were down. This call was followed by one from D. A. Nichols in Wapakmeta, Ohio that his town was also cut off from the world. Burglund put out a General Call to any station located in the flooded areas. This call was responded to by operators in Mansfield, Springfield, and Mt. Vernon, as well as the OSU station in Columbus.

Burglund, assisted by engineering students George Norris, Worth Chatfield, and Mr. Watts (who had once been a commercial operator) began handling Health and Welfare traffic from the disaster area. The Ohio State University station was now being manned by a capable operator, J. A. Mercer who pounded the key for more than 70 hours before he collapsed from exhaustion and was temporarily relieved by operators from the U.S. Army Signal Corps.

Young Mr. Akerberg, the first Ham ever to use Amateur Radio in a disaster would go on to honorably serve with the men of the Army Signal Corp during World War I.

In 1923 he directed the building of Radio Station WPAL in Columbus. Six years later he joined the start-up network CBS, where he built much of their network of radio and television stations. Herbert Akerberg passed away in Scottsdale, Arizona on November 6, 1964.

"Wireless has shown itself up so beautifully during this great crisis, that a bill is pending in the State Legislature of Ohio providing for a large central station or stations and each city to have a

permanent local station, so in case of need all cities so isolated are in communication with the different central stations. By all means let this bill pass. This is a step in the right direction and it's a good example for other States to follow."

"Wireless in the hands of the amateur, while it is used by some as a plaything, is capable of doing excellent service in time of need; and we hope the work done by these men who did all they could to maintain communication between the flood stricken cities and the rest of the world, will long be remembered." **B.N. Burglund –Modern Electrics, April 1913.**

Written by
John Bigley-N7UR
President-Frontier Amateur Radio Society
Las Vegas, NV

MOUNTING A HF ANTENNA

We have verticals, dipoles, yagis, loops and, good heavens even Isotrons. What is the best support to mount your antenna on?

If you look closely at the advertising for many of the antennas, they are mounted on a metal mast. There is good reason for this.

Metal is strong. A light metal mast will hold up when properly supported. Metal masts can be acquired at a local hardware in many sizes. However you say my plastic mast will do that too (not PVC).

There is one thing the plastic masts can not do, conduct electricity. You can electrically ground a metal pole. Having the end of a metal mast in the air is better than having only the antenna up there to take a static hit.

You say you can run a ground wire up the plastic pole. This is true, but if your coax is going up next to it, it could get interesting. What will the ground wire attach to? The antenna or a conductive rod? A metal mast takes care of all this.

Metal masts, being of ground potential, can be used to tweak the impedance of the antenna, but that is for another time.

If you are going to put up a dipole, yagi, elevated vertical or an Isotron, a metal mast or structure can serve you better. Even the loops can be supported with metal masts, but that is not always practical. What ever mast you use, most antennas will work. The support mast will cause some variations with the antenna values.

73,
Ralph WDOEJA



Our world travelers return home for their first club meeting in several months. (Photo by Jim – K4BAV)



A president's chat during the meeting. (Photo by Jim – K4BAV)



The Wednesday Lunch Bunch caught during a recent visit. (Photo by Jim – K4JEC)

Minutes of the AARC Meeting Tuesday April 9, 2013

Board Meeting 7:00 pm

1. Call to Order 7:01 K4DU
2. Call for comments or items from Committees
 - a. Public Service: Joe Flaminni, W4BXG - will report at the meeting
 - b. Estate Committee: Dayton Haugh, AA4DH
 - c. Technical Committee: Bill Pond, N0WP
Committee had asked for up to \$300 for the new antenna and received and implemented this authorization. They propose doing the same thing in order to move the 220 repeater to MJH. Bill will move to spend up to \$300 to accomplish the move to MJH. A check has been received from Dave for the 2 antennas. The electric bill for the Marshall Manor site has been switched to the club's name, and is our responsibility as of April 1.
 - d. Education Committee: Bill Phillips, AD6JV - will report at the meeting
 - e. Fund-raising Committee: Michael Rein, KA4JJD / not present; K4IB, Bill Arnold filling in
 - f. Public Relations: Jim Wilson, K4BAV

3. Old Business

- a. Fox Hunt
- b. Antenna build session date and location

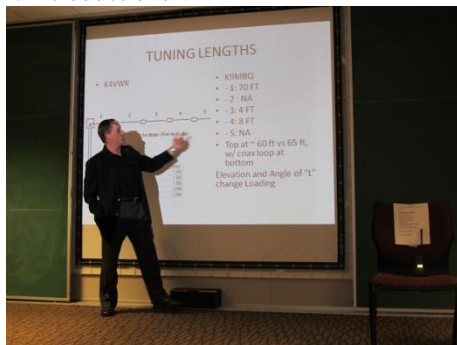
4. New Business

- a. Proposed change in meeting format - will do introductions, then the program.
- b. A list of non-renewed members is now incorporated in the sign in sheet.
- c. Schedule a meeting of the 50th Anniversary Committee
- d. Announce change in June VE Session date
- e. Request a meeting with Public relations to discuss the directory and commemorative booklet
- f. A draft of a survey of AARC activities was circulated among the board members; input was invited.
- e. 2013 directory is in progress
- g. Picnic - should we move it into September, due to the heat? 2nd Tuesday in Sept. is taken, so we would have to move it to the 3rd Tuesday.

5. Board Meeting Adjourns 7:21

General Meeting 7:30 PM

1. Call to Order 7:30 k4du
2. Introductions



3. Program: "Coaxial Vertical for 160 and 80 meters" by Alan Swinger K9MBQ - based on an article by Scott Harwood K4VWK in the March 2012 issue of QST

(7 minute break)

4. Raffle Items previewed by K4IB, Bill Arnold subbing for KA4JJD
5. Secretary's Report
 - a. Secretary asked for modifications or approval of the board meeting minutes as printed in the Beacon; none noted. Joe Flaminni, W4BXG moved minutes to be accepted as presented. Bill Pond, N0WP seconded. Motion carried.
 - b. Secretary reported no applications for new members.

6. Treasurer's Report: Don Eason, N4UVA

Beginning Balance 2/28/2013: \$8,956.62

Checks: -\$145.00

Credits: +\$76.07

Ending Balance 3/29/2013: \$8,887.69

7. Vice Presidents Report: Carter Elliot - Carter is still seeking presenters; next month is Bob, K4DU on the Dayton Hamvention. Nothing else is on the schedule so far.

8. Committee Reports
 - a. Public Service: Joe Flaminni, W4BXG - We had a good time on Sunday working the Jefferson Cup; 9 showed to help. Here is his report: My profound congratulations and thanks to the members who made last Sunday's race go as smoothly as it did. Mike (K4WDV), Teri (KT4UO), Daniel (KJ4YHE), Mike (K8RVR), AJ (KE4AJM), Mike (KA4JJD), Don (KE4DDR), and Jim (K4CGY) did a bang-up job of keeping the troops together. Speaking of bang-up,

at the very end of the race there was a crash resulting in some broken bones, and thanks to ham radio, an ambulance was on-scene in about three minutes. Ruth Stornetta, the race coordinator and driving force, thanked us all profusely.

Joe will be soliciting volunteers for the upcoming MS150, a 2 day event.

b. Estate Committee: Dayton Haugh, AA4D - no report

c. Technical Committee: Bill Pond, N0WP - Last month we bought the antenna and duplexer for Herd Mountain, which is working nicely. We still have issues with the 76. We need to address those issues. We are not getting a lot of use out of the 220 on Bucks Elbow and would like to place the same antenna that is on Herd Mountain, and put it on the MJH site. Bill proposes up to \$300 to accomplish this. Bill Pond, N0WP moved the club authorize this expenditure; Don Eason, N4UVA seconded. The motion carried.

d. Education Committee: Bill Phillips, AD6JV - Technician Class 4/23 - 6/10; he currently only has 3 people interested but need 8-10 to make it worth everyone's while.

e. Fund-raising Committee: Michael Rein, KA4JJD was absent; Bill Arnold K4IB filled in. Tonight's offerings: Icom ic04at and an Icom ict2h

f. Public Relations: Jim Wilson, K4BAV - A News Release has been prepared for the Tech class. Some of the folks in the CERT class are interested in the tech class.

The president will call for a meeting of the 50th Anniversary Committee and separately for a meeting of the publicity committee to discuss the Directory and a possible commemorative publication. The directory will be delayed until we have determined if these should be combined.

Mike, K4WDV: There will be a fox hunt antenna build this Friday 4/12 6:30pm.

9. Old Business - None

10. New Business

a. Proposed change in meeting format: Bob, K4DU is toying with modifications to the meeting format, incorporating the board and business meetings into one, then having the presentation at 7:30. If more time to conduct business is required, that could be concluded after the presentation.

b. Obtain a list of non-renewed members for circulation
Tonight's sign in sheet listed all members currently on the roster with those current members listed in bold. Corrections to the current information were invited.

c. It was noted that our repeaters were not listed in the most recent Southeastern Repeater Association (SERA) publication. SERA has changed their procedure. This was the last printing of the old list. They have gone to an on line process. Our listing on line is accurate.

Dave and Bill were thanked for their support out in Greene, getting equipment to the police station.

11. Raffle: K4IB in lieu of Mike Rein

12. Adjourn 8:31



The raffle station was well staffed during Michael's absence during the last meeting. (Photo by Jim - K4BAV)

Classified Item Listing

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To place an item in the Classified Listings just send an email to k4rka@juno.com

NEW ITEMS & MOST RECENT LISTINGS as of 4/17/2013

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Greetings Hamsters, revised 4.17.2013
Some prices have been reduced. Updated
April 17 at 9:15 AM.

I have a list of equipment owned by Dan,
W4DLJ. As you may know, Dan passed
away in February and the family has
asked me to dispose of his radio
equipment. All prices are negotiable and
no reasonable offer will be refused.
However, the radio equipment will only
be sold to those with a valid amateur radio
license.

1. Ten Tec 307 external speaker in good
condition: \$35.00
2. Cushcraft R-6000 20-6 meter vertical:
\$199.00
3. Kenwood PS-53 DC Power Supply
13.8 V 20.5 A. \$125.00. Work just fine.
4. Hustler HF Mobile Antenna Mast and
resonators for 10, 15, 12, 17, 20, 40 and
75 Meters: \$125.00
5. Ten Tec 238 Tuner \$299.00
6. Ten Tec 605 Keyer: \$34.95
7. Ten Tec 607 Keyer: \$39.00
8. 2 Ten Tec 4 pin 705 Desk
Microphones: \$39.00 each
9. Ten Tec 4 pin 706 Desk Microphone:
\$39.00
10. Ten Tec Omni VI plus HF rig:
\$699.00
11. Ten Tec 253 Automatic Antenna
Coupler: \$399.00

You may contact me via e-mail regarding
the items. All have their original boxes
and manuals. All money goes to the wife
of Dan James.

73, Greg
W4GRC grcljc@comcast.net or w4grc@yahoo.com

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FOR SALE 4/12/2013

I'm in the process of moving to Louisa
Co. and have quite a few ham
items for sale. The list includes:

1. 72 ft crank up U.S. Tower with log-
periodic multiband HF antenna, rotator
2. 40 ft. Rohm Tower
3. Ten-Tec Omni 7
4. Ten-Tec Titan amplifier
5. Lunar Link 1.2 KW amps on 2 meters
and 435 MHz
6. Several 1.2 GHz tube and solid state
amps ranging from 50 watts up to 1.2 KW
7. LOT's of coax and hardline with
fittings
8. Circularly polarized satellite antennas
on 2 meters and 435 MHz
9. Completely computer controlled 4.5
meter EME dish

10. A variety of preamps and
downconverters
11. Kenwood TS-790 2 meter / 435 MHz /
1.2 GHz transceiver
12. Bird wattmeters, slugs
....lots more.

All prices reasonable and negotiable.
If you're interested, please contact me by
e-mail and we can set up a
time talk or have you visit and look at
what's available.

S.E. (Chuck)

Mills, w4sm@keplerian.com

contact me by email and leave a telephone
number, I'll call back.

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FOR SALE: Alinco DJ-C7T dual-band
"credit card" transceiver, approx. 300 MW.
Included are the original 2-inch long
antenna, a 14-inch long dual band
antenna, adapter from SMA to coax,
external speaker mike, and charger.
Asking 125 dollars, but if interested, we
can talk about it.

Contact me on the air or by email:
joegio1@earthlink.net; phone 434-973-
9502; Joe W2PVY

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FOR SALE posted 3/20/2013 revised
4/6/13

HP 7035 X-Y plotter.

I am asking \$25.00 for it.
vacuum capacitor for sale.

It has a range of 16 pf to 330 pf.

I would like to get \$29 for it.

Collins 51J4 receiver with manual,
\$350.00

Thanks Tom W4RAE

(434) 978 2003

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ctrae@hotmail.com

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The End

That's all I have
for this month.