

CHARLOTTESVILLE (Albemarle County) VIRGINIA

Editor: Joseph D. Fritz, KD4RWX

## AARC LOSES MAIN REPEATER SITE

By Joseph D. Fritz, KD4RWX

Following a snow storm in the lowlands of Albemarle County, the AARC repeaters went silent on Carter's Mountain the night of March 14th. The next morning Hein (N4FWA) and Greg (N4PGS) drove to the mountain site not knowing what to expect. Perhaps it could be as simple as an electrical component in the battery switching circuit or as serious as damage from a fallen limb, which had previously been feared.

The snow was still on the ground. They found ice on trees and towers as they approached the crest of Carter's Mountain. Soon, it became obvious that the little white building could no longer be seen in its regular place. A tree rested quietly midst the broken building. The shack had been crushed by an ice laden tree, which fell right in the middle of the small building used to house the AARC repeater equipment.

Hein and Greg must have had mixed emotions at that moment. Many times they had arrived at the same place to enjoy, over time, many hours of repairing, tweaking, installing, removing and just checking on the equipment. Many others, too, had participated in the same activities over the years. Now, with the tree in a dangerous position, they could only get glimpses of the inside, to check on which equipment survived, if any could have. From the external appearance, it looked bleak. However, Greg, who had taken his video camera and had shot some of the outside views, leaned in as far as he dared to do. He indicated to Hein that some of the equipment seemed to have survived. Other items seemed not to be so fortunate, especially the digital items.

With ice still falling from the adjacent Forest Service tower and nearby trees, as the Sun's rays bathed them, Hein and Greg left the mountain. They sensed both an end and a beginning. The old shack was no longer usable and new places must be found to house the equipment. Perhaps, even new equipment would have to be purchased. Time would answer those ponderings.

Later, in the day, Mike Duvall (AC4ZQ) and Grayson (KF4FYI) trekked up to place a tarp over the crushed building, hoping to prevent further damage. However, they found such action unnecessary. The roof adequately did that. They looked around and left, as darkness approached.

The Ham community was shaken. Their equipment had taken a major hit. Fortunately no one was injured. If the tree had come down with workers in the shack - a true tragedy would have taken place.

However one might propose alternate scenarios, the fact remained - our 146.760 repeater (and 911 autopatch) was off the air. So was the 440, 220, APRS, MACHO equipment. Uncertain was the extent to which actual loss had occurred.

Plans were made to send a recovery team to extract the equipment. The March meeting, delayed due to weather, was the first opportunity for many Hams to get a glimpse of the damage. Greg's video was shown at the meeting and those attending quietly watched in amazement.

On the following Saturday morning, Grayson and his friend, Don, took a big saw and went up to the repeater site to begin the process of removing enough of the tree to permit equipment removal. Others had been scheduled to arrive at 2 PM. Soon, word filtered down that the tree clearing had been successful and much of the equipment had already been removed. Needed was something to quench the thirst of the two workers.

It appeared that more of the items had suffered less damage than first believed. Several Hams changed their plans and went to the site earlier than they had planned. When they arrived, they delivered some food and drink to the extraction team duo. They also marveled at the destruction seen. They saw the great job of tree removal done by Grayson and Don.

Before long the Hams chipped in, took a few pictures, gathered the equipment and began their journey down the mountain. Perhaps, some wondered if they would ever return to Carter's Mountain. That issue will have to await other issues to be resolved. The more current concerns were related to

## MARCH CLUB MEETING

Tuesday, April 13, 1999 7:30 PM  
Topic: APRS (Automatic Position Reporting System)  
Greg Faust, N4PGS  
Location: NRAO Auditorium  
on the UVA Grounds off Edgemont Road

the following questions. What works? And, "Where will we set it up?"

As time passed, the 440 repeater was temporarily placed at Hein's house. Thanks, Hein. The APRS equipment is up and running at a nearby site.

It would have been nice for some of the on-scene individuals to have written a story. This and Ron's (K4RKA) message to S.E.R.A. (next page) will have to do. Perhaps additional information will be forthcoming at the next meeting.

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## THE PRESIDENT SPEAKS

Don - KE4DDR

Hello everyone! By now you probably know about the air raid (a big tree) on the Carter Mountain repeater site. So, be on the lookout for another possible site. But, with the kind of people in this organization, I am sure we will overcome this set back.

I would like to thank Grayson (KF4FYI), and his friend, Don, as well as all of you who came up on Saturday, March 20th, to help remove all the equipment from the shack.

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## CLASS FOR STATE ARES ID, SOON

Please check with Dave (K4DND) for details and correctness of this information.

A Class which is required as part of obtaining the state-level ARES identification card will be held in Winchester(?), Virginia on

MAY 1st

I suspect car pools will be formed. No information is known concerning any classes which might be located any closer to Charlottesville.

Correction:  
Warrenton, VA

## Tree Kills Repeater

Ron's (K4RKA) Message to  
S.E.R.A.

Gentlemen,

It is with much regret that I report that wind, ice, and a large tree has ended, for the time being, the existence of WA4TFZ/R on Carter's mountain overlooking Charlottesville, Va. For the past 30 years, Charlottesville and Albemarle County hams have enjoyed an excellent repeater site at the Virginia State Forest Service lookout tower on Carter's mountain. With the support of the Charlottesville Civil Defense Coordinator and the co-operation of the Virginia Division of Forestry, our repeater became the first amateur repeater to be allowed at a Virginia State Forest Service lookout tower site. As a result of our successful venture, other amateur groups have been allowed access to these strategic locations.

The forerunner of the WA4TFZ system was first licensed as WB4KNX/R in the spring of 1969 operating on 146.28/146.94 after a short period on 146.34/146.94 under the call of K4RKA. The formation of the Charlottesville Emergency Amateur Repeater System and the close association with the Charlottesville Civil Defense Organization allowed us to gain access to the 1500 foot mountain top. Over the years the call sign changed to WR4ADV, WR4ATL, and after merger with the Albemarle Amateur Radio Club, to WA4TFZ/R. The frequency changed to 146.28/.88 and then to 146.16/.76 as circumstances dictated. The repeater evolved from tube type equipment and mechanical timers to a modern solid state unit with emergency autopatch, net mode operation, and a full 450 MHz repeater which also served as a control link backing up the telephone control. In addition the site supported a 220 MHz repeater, packet node, and APRS transceiver.

All this equipment was located in a circa 1920's ranger's cabin which we maintained as part of our agreement for permission to use the site. At various times we shared the building with an educational TV translator, the local Water and Sewer Authority repeater, and an ATF repeater. Then came

the ice storm of March 14, 1999. A large tree which has been overlooking our building succumbed to the ice, snow and wind and came crashing down on our weather beaten little building, landing dead center on the digital equipment and reducing the building to two walls and a pile of scrap wood and tin. Early visits to the site found the 2 meter and 450 repeaters apparently undamaged but completely exposed to the weather. The 220 MHz repeater suffered some damage and the digital equipment was driven so far into the ground that it could not be seen.

Current circumstances at the site prevent our immediate return, even when the equipment is repaired. However, following negotiations between other parties involved, we may be permitted to return to the Carter's Mountain location in the near future. In the meantime, we are attempting to find another location or locations for the repeaters and digital equipment. Word of our loss spread rapidly and we were impressed with the offers of support from other repeater groups for equipment or use of their repeater in order that our ARES net can continue to operate. We very much appreciate the concern of these people and groups.

Some excellent before and after pictures may be found at:

<http://aresva.org/news/d03rprr.html>

Re-coordination efforts will be made as new sites are found. Hopefully, these systems will not be off the air for too long. In fact, after a work party at the site on March 20, the 450 repeater is already back on the air at a temporary site and most of the other equipment except for the batteries and the 220 duplexer apparently suffered only easily repairable damage. In the meantime, our other 2 meter repeater on 146.325/146.925 will continue to serve the Charlottesville area from the top of a local hospital. Anyone visiting the area is invited to use that frequency. We have suffered a severe loss but 2 meter activity is still alive and well in Charlottesville and we have hopes for a bright and productive future.

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## THE FCC AND REGULATIONS Harry, W2HD

The "Amateur Radio Newslite" for March 19th (Read on the Info Net on Monday, the 22nd) stated that "Louisiana Republican Billy Tauzen says that the FCC needs to be revamped to have a competitive rather than regulatory mission." Golly, gee whiz and suffering catfish, WHO is going to take on regulation? And, what in the world is meant by "competitive?" Could that be read as being in charge of still more auctioning of radio frequencies?

Fellow members, I'm quite concerned and hope to be able to obtain an answer from some of my friends closer to the source. None of us worry much about regulations. We have them in many phases of our everyday life. We know that when driving a car, RED means we stop and GREEN means we can go. We take an exam to be certain we understand those regulations. And... just in case we forget, we have the police force to enforce the regulations. We know there are regulations concerning our income taxes... particularly right now... and we abide by those rules or we may hear from the IRS. Yes, there are regulations to the right of us, to the left of us, before us and behind us. It's a way of life.

However, can you think of the chaos which could occur if the FCC didn't have rules and regulations which (most times) make sense? Our bands would be a tragic mess, the AM/FM broadcast bands would be full of illegal, perhaps poorly operating equipment. There is little doubt that we need regulations and their enforcement.

It's kind of pathetic when, in the same week, we read that there are plans within the FCC to seek out the intruders on ten meters, to clean up the bands where some of our Hams go astray with their free speech and Constitutional rights and to work on malicious interference. Many of us think the FCC is on the right track. I can hear some voices... hopefully a long distance from our CHO area...crying out that my words favor a "police state!" Far from it fellow club members... my cry has always been for the minimum regulation necessary to do the job. However, like it or not, we must have some "policing" because we can't

do the job within our own ranks with any real hope of success... just conflict!

When the Official Observer program was in full swing at the ARRL level, Observers were instructed NOT to engage in on-the-air QRM while they tried to clean up a situation. It was far better to contact the station by telephone, in person or mail. You can then avoid the "Johnny come lately" who enters the on-the-air battle with comments which don't fit the situation.

If there are some up-dates on Tauzen's remarks, I'll be pleased to bring them to you in a future column. 73...

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### BOATANCHOR

#### SPECIAL EVENT STATION - K4C

The Albemarle (Va) Amateur Radio Club will operate a "Classic Boatanchor Field Day Commemorative" Special Event station, K4C, during the 1999 ARRL Field Day contest. Operations will commence at 1800z on June 26 and run through 1800z June 27. The station will consist of classic AM Boatanchor gear of the 50s era. Frequencies of operation will be within the "AM windows" of 3870-3890, 7285-7295 and 14286 +/- QRM. Picture QSLs will confirm contacts. QSL via WB9HGZ, Callbook address. SASE appreciated.

**FIELD DAY IS COMING!!**  
June 26 and June 27

## CQ FD CQ FD

It seems a bit strange to be writing about Field Day as this winter snow is flying. My employer has an office in San Juan, Puerto Rico and I must admit a transfer looks mighty tempting at this moment. I suspect that I would regret it come hurricane season, but still, it sure is tempting right now! Well, snow or no snow, it is time to start planning and preparing for our annual Field Day.

### When, Where?

The dates for Field Day this year are June 26 and 27. We will once again hold the event at the Earlsyville Fire Station. The reservations have been made and they are looking forward to hosting us again this year.

### Food?

In what is quickly becoming a grand tradition, KE4OID has graciously offered to plan our Saturday night picnic. Please help Jessie out when she asks.

### SHELTER?

KE4DDR is lining up the "big top" tent for our use. The large open-sided tent which he was able to secure last year provided a wonderful area for the picnic and as a general rag-chewing area. The Novice station and the satellite set-up also found a comfortable operating position "under the big top."

### Sign up!

We need to find "a few good men" (and women) who would be willing to volunteer as station captains. (Chief engineers as I

would call them.... sorry, that's the broadcast engineer coming out.) We need a person to handle each of the three major station areas. 80/40, 20/15/10 and

Novice/Tech. Who would be willing to take on these important tasks? Is there a young person\* willing to take on the Novice/Tech station responsibilities this year? Don't be shy, us "old guys" are willing to give you lots of advice and encouragement!

### The Ghost of Field Day Past!

As an added feature this year, I am planning to put together and operate a good old fashion "boat anchor" Field Day demonstration station. It will be straight out of Field Day, 1959. My plans are to operate it "special event" style. I will provide some nice photo QSLs for anyone contacting our boat anchor station. Who in the club is photogenic enough to be on the QSL? Maybe we'll have a contest to decide that! Oh, by the way, did I mention that we'll be operating AM? Want to try your hand at operating a station that glows in the dark and weighs as much as you do?

### So you don't forget, send before midnight tomorrow!

If you wish to volunteer for one of the Chief Engineer positions or want to help out in any other capacity, please give me a call at 978-4903 or send an E-mail, wb9hgz@charlottesville.net Looking forward to seeing you all at Field Day! And, let's not have any snow out there! Snow on Field Day? Definitely a KP4 call in my future, if that happens!

73, Paul "Real radios glow in the dark" Dean, WB9HGZ

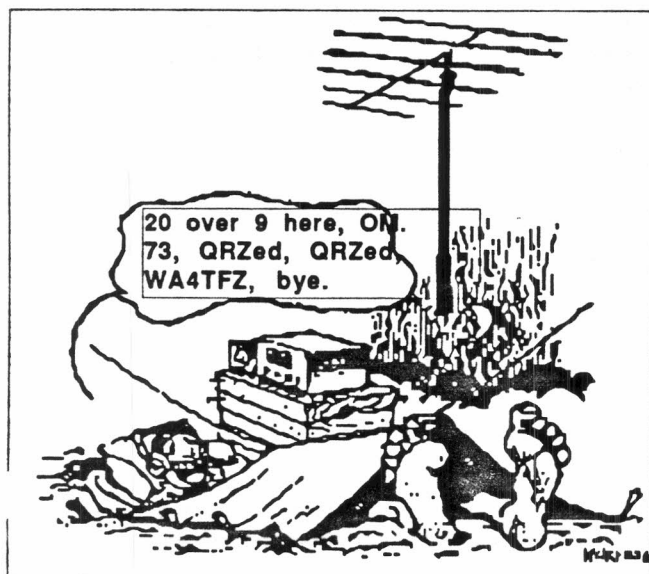
\*(Editor's note: Age is NOT a requirement. The person who serves as the Control Operator must hold a Novice Class or Technician Plus Class license. His or her call will be used for the station.)

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### A FIELD DAY ANTENNA

At the March meeting, a 160M Carolina Windom<sup>TM</sup> antenna by The Radio Works, Inc., was raffled. It was donated by the irrepressible Joe Giovanelli (W2PVY). Thanks, Joe. It was a generous contribution.

The holder of the winning number was Marty (KF4FRO). He quickly requested a redraw.. John Gray (W6UZed) quickly begged that the previous winning number be increased by 1. Did John hold that number? Guess what, Don (KE4DDR), shaking in his boots, reached in and pulled out another ticket. Guess who had the winning number? Right, W6UZed! Later, after the murmuring crowd settled down and the meeting was over, John decided to donate the antenna to the Club for Field





Day use. He claimed that his wife would kill him if he brought another box of "stuff" home and put it in "her" basement. In order to save John from trauma, it was accepted on behalf of the AARC.

Thanks Marty, John and Joe (W2PVY) for your kind generosity. You can be certain that some group will use the antenna during the coming Field Days. **Joe, KD4RWX**

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## Antenna Basics (Part 3)

[3-Element 2-meter 1/2λ Beam\*]

Steven Traylor, KF4ZGD

Put on your thinking cap and lets get going!

Whether you have been building the antennas that I have been describing in the past newsletter articles or not, the three element beam that I will describe now is by far the best antenna of any that I have covered in the past two articles. But, they are built on concepts that are basic to the beam. So, let us do a quick review. First I covered the dipole and ground plane. The heart of any beam, simple or complex, is the dipole. Remember. A dipole is made of two pieces of wire, one sticking up and the other down. Then I covered the ground plane. This antenna has one vertical wire and four radials (wires connected to the shield -ground- side of the coax which stick out from the bottom of the antenna horizontally or diagonally.) Then there was the J-pole antenna which had a 1/4 wave rod and a 3/4 wave rod. Yet there are still several other topics which must be discussed before we get into the beam itself.

### Polarization

You may have noticed that not all antennas stick straight up and down. This is because of a concept called polarization. An antenna that sticks straight up and down is VERTICALLY POLARIZED. An antenna with the elements of the antenna parallel to the ground is HORIZONTALLY POLARIZED. Dipoles and beams are the most common examples of polarized antennas. On two meter FM, most antennas are vertically polarized. But on two meter SSB (Single Side Band) or CW

(Morse Code) this is a different matter. If you use these modes your antenna is generally horizontally polarized. On the other bands this is GENERALLY true. Remember it this way:

FM goes up,  
CW and SSB go out.

It is very important that you have your antenna polarized the same way as the other station! If it is not, signals will sound weak and will be much harder to copy.

### Gain

What is all this talk about antenna gain? I'm sure you've heard about it in some form or another. So, what is it? Well, first what it is NOT. NO antenna CAN in any way, whatsoever, create power. All gain is, is the directing of the power coming out of your radio in one (or several) directions. For example, an unobstructed "rubber duck" radiates power in ALL directions at once. A dipole radiates power in two main directions. But the beam radiates most of your signal in ONE direction. This directing of your signal is called GAIN. This is a complex subject to explain. But the simple fact is that your signal is directed by the position, length, and number of elements of an antenna. Or, in the same way, your signal can be absorbed by nearby objects. Let me digress here and say something about safety. Remember, ALWAYS. BE SAFE! THINK SAFE! ACT SAFE! You only have one chance to be safe. If you misuse this chance, you may NEVER HAVE ANOTHER ONE! The RF coming out of your radio is DANGEROUS! Always treat RF (the higher the power the more dangerous it is) like you would 120-volt, 60-cycle, AC coming out of your wall outlet. RF burns are PAINFUL! I have never had one, but I know others who have! The ARRL publishes some good books that can help you construct your station safely. If you are safe in your experimenting you will probably have a very enjoyable time in this exciting hobby! So having covered the topic of both antenna gain, and RF safety I would like to go on to cover something related to antenna gain: the radiation lobes of an antenna.

### Radiation Patterns

Every antenna has a radiation pattern. Simply, these are the directions in which an antenna has gain. As said previously the "rubber duck" on top of your HT has a NEARLY circular radiation pattern. Note I said NEARLY. Your body absorbs some of the signal coming from your HT so that the pattern from an HT is a sort of heart shape with the point at the bottom rounded out. The one point where the signal drops down to a minimum is behind your body. This area is called the null. The dipole antenna has two main radiation lobes. These are perpendicular to the two wires. The ground plane has a circular pattern. The antenna that I will discuss today has one main lobe pointing in one direction, but I will get into that later.

So, I have now covered the topics that I needed to. I hope I have not lost you as these are fundamental to not only the beam, but to any antenna. But before we get into the theory, let me answer a question I know you have been asking! How much will this antenna cost? Well, about FIFTEEN DOLLARS!! What does it take to build one? Five feet of 3/4 inch PVC, three 3-foot brazing rods, one 4-foot brazing rod, 4 feet of coax, 1 PL-259 connector, electrical tape, PVC glue, and ... and ... and ... and that's it! Almost too good to be true!

So here we go. Get out a calculator, a piece of paper for writing, and, if available, my February and March articles. I know you are not interested in getting bogged down in complicated formulas, so, the formulas that I will use will be general formulas but will be specifically related to this beam. Let me also give you a quick dictionary of the terms that I will be using.

The boom of a beam is the metal or plastic rod.

The elements of a beam are the wires that direct your signal.

The driven element of a beam is the wire that the feed line is connected to.

The director in a beam is the wire in front of the driven element that directs your signal forward.

The reflector in a beam is behind the driven element and reflects your signal forward.

How long should we make the boom of this antenna. Well, for our 2 meter, 3 element,

directional antenna, the formula would be  $.45\lambda$ . So,  $(200 \text{ cm}) \times (.45) = 90 \text{ cm}$ . Now  $90 \text{ cm} \times (.4 \text{ in/cm}) = 36 \text{ inches}$ . The driven element will be a  $1/2$  wave dipole. So calculate this length from the formula given in the February newsletter. You came up with about 20 inches. So now we know that the boom will be 36 inches, and the length of each of the two rods forming the driven element will be about 20 inches. Now for the reflector. The formula for this is  $.5\lambda$ . Figure this up and you come to 40

inches. The formula for the director is  $.4375\lambda$ . This comes to be 35 inches.

So here it is:

Boom: 36" [E+A+D+B+E]

Driven element: 2 - 19.5" rods [H+I]

Reflector: 40" [F]

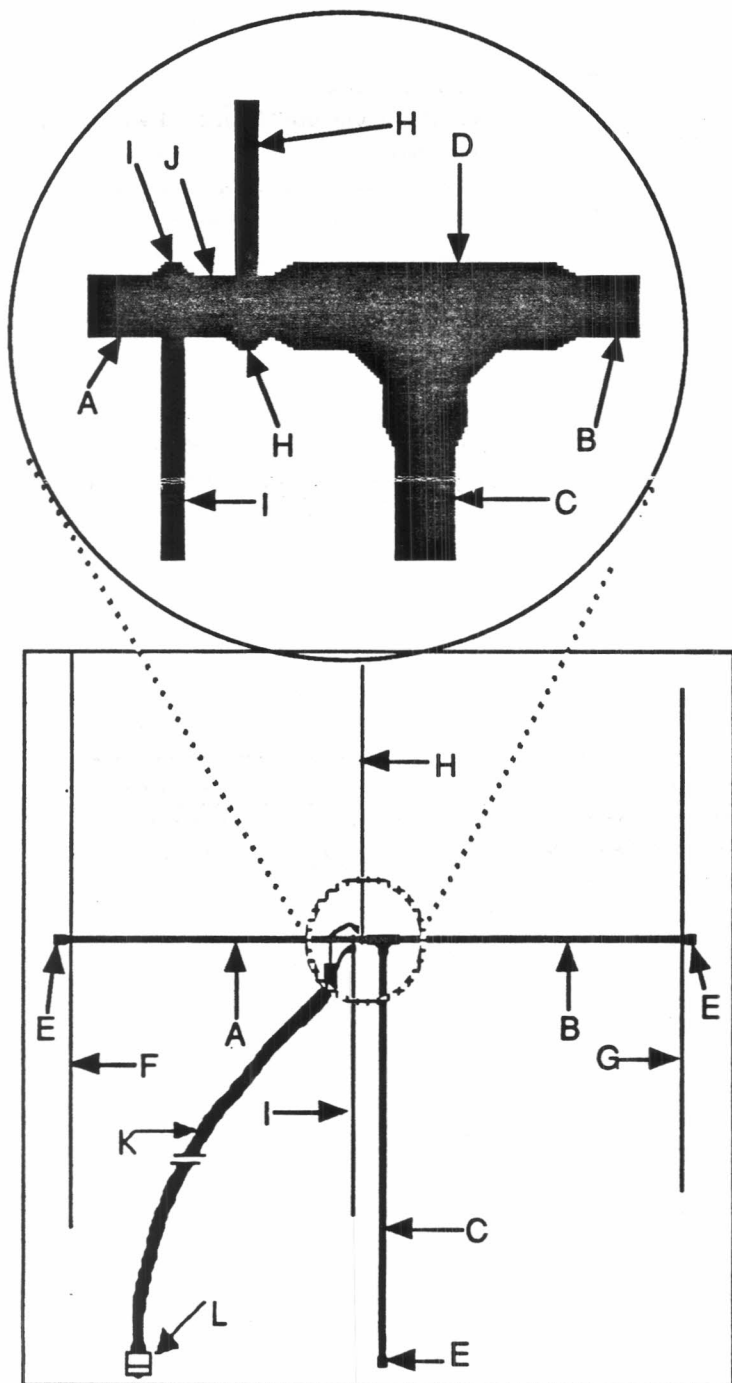
Director: 35" [G]

To build the boom for this antenna we need 5 feet of  $3/4$  inch PVC and  $3/4$  inch fittings of the following types: 1 "Tee" joint [D] and 3 end caps [E]. Now cut an 18 inch

piece [A] off of the pipe. Cut another [B] one just like it. Connect the two pieces together with the "Tee" [D] so that they form a 3 foot piece [A+D+B] of pipe. Glue this together. Also, glue an end cap on each end of the pipe. Now glue the remaining end cap on the remaining piece of pipe. Glue the remaining piece of pipe [C] into the "tee" [D] so now we have a giant "T," with the "stick" of the T made by the remaining 2 foot piece [C] and the "hat" of the T made by the 2-18 inch pieces. Now you will need 3, three foot brazing rods, and one 4-foot brazing rod. Cut the first 3-foot rod to 35 inches [G], the second to 19.5 inches [H] and the third to 19.5 inches [I]. Cut the 4-foot rod to 40 inches [F].

Drill a hole the diameter of the brazing rod in one end of the "hat-of-the-T" and stick the 40 inch rod [F] down in the hole until half is sticking out the top of the pipe and half out the bottom. Secure the rod. At the other end of the giant "T" repeat the same steps with the 35 inch rod [G]. Using formulas, we find that the driven element should be in the middle of the T. To be exact, the driven element should be 20 inches from the director (35 inch rod) and 16 inches from the reflector (40 inch rod.) To attach the driven element, measure the proper distance, then mark it with a pencil. Now, drill 2 holes at the proper location in the pipe. The holes should be  $1/4$  an inch [J] from each other [and equal distant from the previously pencil-marked line]. Stick the first 19.5 inch rod [H] in the first hole. When it has barely gone through the bottom of the pipe, attach it. Stick the second rod [I] through the second hole. Push it through until is about to come out of the pipe and attach it there. Now you should have one rod sticking up out of the pipe and one rod sticking down out of the pipe. Hold up the beam and look down it as if you were looking down the barrel of a gun. All three elements should be perfectly aligned, sticking straight up and down. If this is so, you are done! Before we forget, we also need to connect coax to the antenna. Cut a piece of coax the length that you will need. For runs between 50 and 100 feet, you should use RG 8. For 100 feet or more, use RG 213. At one end of the cable, attach a PL 259 connector. At the other end we need to first strip off the outer insulation. This will expose the shield. Cut the shield and pull it back so it will not get in the way. Now, strip off the inner insulation. This will expose the center conductor. Solder the center conductor to the part of the driven element that is sticking up. Solder the shield to the part of the driven element sticking down. And remember if you do not understand this, or need help I will be glad to try to help. Also remember, if possible to check and tune this antenna to the proper SWR. And, as always: SAFETY FIRST.

One final comment about the beam's radiation pattern. The beam produces one main radiation lobe. Essentially it directs all the power coming out of your radio in one direction. That is what makes it so



effective. You may have been wondering if power coming out of your radio, losses in the feed line, antenna gain, and SWR can all be factored in to one number, given in watts, so you will be able to find out exactly how much power you are ACTUALLY putting out. This is actually possible. This number of watts is called the ERP. I believe this stands for **Effective Radiated Power**, but I may be wrong. If you were on a HT, putting out 3 watts, and you were standing beside this beam, only needing 4 feet of RG 58 coax, and having the beam tuned to 1.5-1 SWR your ERP would be about 15 watts. But if you are near a metal object or a tree, that object or tree would absorb part of your power, dropping your ERP. Have fun with your new beam!

This ends this series of articles, so as always 73...

**\*Editor's Note:** A similar beam was described in the April, 1993 *QST*, Nathan Loueks (WB0CMT). It was also illustrated in *The ARRL Handbook for radio amateurs*, 1995, p. 20.61 - 20.62. It may be in other revisions of the Handbook on different pages. These references can provide additional information concerning the antennas which Steven has written about. Other types of antennas can be found in these sources as well. If you are in need of something better than a "Rubber Duck" antenna, try building one of the antennas Steven has described in his series of articles. Thanks, Steven.

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### SPECIAL BATTERY PACKS FOR EMERGENCY AND NON-EMERGENCY USE

Grayson--KF4FYI

I'm sure most of you know that battery packs serve as an excellent backup for emergency power. Or, you can use it for everyday use, in home, portable or mobile. The main use of battery packs is for emergency or portable use, where there is no other power available.

As a ham, I believe an operator should have one pack to use and one pack in reserve and fully charged. Following is a general

description of a battery pack that I have designed and in the building stage.

As everyone knows, I have been associated with the UVA sheet metal shop and have access to the same.

First I located a piece of 24ga sheet metal 14"x 11". Formed this piece of metal to make a box 6"x 9.5" with sides 2.250" with lip turned in .250". The lip turned in is to accommodate the mounting of the cover. The cover consists of a flat piece of 24ga metal 6"x 9.5". A piece is cut 2"x 7". A 90 degree bend is formed at each end of the 7" piece for mounting. The box is held together by pop rivets at four corners. The center piece is mounted at the 4.750 from end to center. The .500" bends are for mounting with pop rivets.

This box should accommodate six (6) 2v 5Ah batteries totaling 12 volts at 5 amp hours.

One thing that wasn't mentioned was the insulation for the batteries. I use .5" foam rubber cemented to bottom, sides and top. This isolates the batteries from the metal of the box. Oh! By the way, insulate the strip in the middle. Next, we have to install the batteries snugly in the box. Then wire batteries in series to create 12 volts.

If using for portable radios on low power, an antenna can be mounted on the side of the box and radio can be mounted to the top of the box. Any light weight radio such as mobile on low power, mobile CB or an HT on hi power can be used on this power pack. Also, it will be set up for recharging.

Battery packs such as these can be built for any purpose or any voltage. I am using 12 volts because every radio I own operates on 12 volts and is compact enough to fit on the top of the box.

There is also enough room in the box to substitute eight (8) D cells. Of course to use D cells you have to use battery blocks already wired. These can be purchased at Radio Shack. But, there is one problem with D cells. They can't be recharged. As far as boxes go, you may be able to purchase these at Radio Shack, as well. I will check this out just to save myself some time.

I don't know whether this article will help

anyone, or whether anyone will be interested or not, but if only one of you learns something from it, I will be satisfied. If you need any information on this, call me at home. The number is 295-4885.

Grayson-KF4FYI

### UPDATE ON BATTERY PACK:

My battery packs are complete, operable, checked out and found to be extremely versatile. They can be used with HTs or mobile rigs. They can be modified to be used with different voltages for various projects, or whatever.

Just use your imagination and have mucho fun.

An added extra:

For those who use "D" cells, Radio shack sells boxes, 4 cell battery holders and 2 cell battery holders. This will be all that you need except wire and connectors. Go for it.

If there are any questions call Grayson (KF4FYI) at 293-4885. My home address is 1411 Monticello Rd., Charlottesville.

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### VE SESSIONS SCHEDULED 1999

10-Apr - Pat Wilson (804) 932-9424, 9 am

Richmond - (walk-ins; please call first)

17-Apr - Carolyn Cavanagh, (540) 373-0572

9:30 AM (Walk-ins allowed) Fredericksburg

8-May - John Gray (804) 973 1094, 9 am

Charlottesville- (walk-ins; please call first), or e-mail [jdgray@rlc.net](mailto:jdgray@rlc.net)

12-Jun - Pat Wilson (804) 932-9424, 9 am

Richmond - (walk-ins; please call)

14-Aug - Pat Wilson (804) 932-9424, 9 am

Richmond - (walk-ins; please call)

9-Oct - Pat Wilson (804) 932-9424, 9 am

Richmond, VA (walk-ins please call)

11Dec

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### HAMFESTS OF SOME NOTE

April 11 RARSFest, Raleigh, NC

<http://www.rtpnet.org/~rars>

June 6 Ole Virginia Hams ARC  
Manassas, VA

August 1 Shenandoah Valley ARC  
Berryville, VA

E-mail: [wkke4pms@vvalley.com](mailto:wkke4pms@vvalley.com)

<http://www.vvalley.com/svarc/hamfest/default.htm>

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**CLUB BUSINESS****AARC Board Minutes March 2, 1999**

Board Members attending: Don, KE4DDR; Hein, N4FWA; Jessie, KE4OID; Dave, K4DND; Joe, KD4RWX; Mike, AC4ZQ; Sharon, KO4OC; Ann, W0ANN.

Mike moved that the donation from the Estate of Robert Brown (WA4AWJ/sk) in the amount of \$170.75., be designated for educational purposes. (Approved)

Mike reported on the tests which were run concerning the .925 repeater.

A motion by Dave and approved by the Board disbanded the Recently approved Repeater Oversight Committee. The Goals and Objectives of that Committee will be dealt with by the Technical Committee.

Hein - .925 repeater back to Martha Jefferson Hospital. It was recalled that we are there with the cooperation of MJH as long as we maintain a repeater there. It was relocated temporarily for testing purposes.

Dave suggested that the Tech Committee update the .925 repeater. He moved that a fan, tone board and necessary changes to bypass internal controller. Make it as much like .76 repeater as possible. The motion passed. This is a comprehensive push to make the .925 repeater a more valuable resource.

Dave recommended that Morris (NM4R) be named a LIFE Member. The Board agreed. Dave will provide a written nomination and it will be submitted to the membership at the March meeting.

**AARC Regular Meeting Minutes-- March 18, 1999**

Snow canceled the meeting on March 9th. Previous Minutes were approved.

New Members Approved:

Vic Vickery, N3DFS

Mike Colburn, N4HRO

Bonnie Colburn, KB7ZWG

Jimmy (K4JMY) presented Harry (W2HD) with an Elmer's certificate.

Joe (KD4RWX) read the Morris (NM4R) Life Member nomination statement submitted by Dave (K4DND). It is as follows.

Pursuant to Article 2, Section 2 of the Bylaws of the Albemarle Amateur Radio Club, I (K4DND) propose Morris Jones (NM4R), for Life Membership in the Albemarle Amateur Radio Club. Life membership is to be conferred on a Full Member who has rendered notable service to the Club or Amateur Radio. The Life Member is entitled to all the privileges of a full member, and is exempt from paying dues.

I submit the call sign NM4R to the Club for election to Life Membership for the following contributions: Morris began his service to the community, to the Club and to Amateur Radio when he was appointed as ARRL Emergency Coordinator for Charlottesville/Albemarle in December, 1979, and began the local VHF emergency net January, 1980. He then became District Emergency Coordinator for District 3 of the Virginia Section in June, 1980, an appointment he has continuously held until March, 1999. Morris has been an active participant in all aspects of the AARC by serving as the Club president, Field Day Chairman, and was the VEC leader of the first licensing exams given here under the rules change that permitted local examinations. Morris continued to serve the community as the guiding force behind the Northern Piedmont Emergency Net as NCS until August, 1996. During this time Morris has been NCS for the Wednesday session of the Virginia Late Net, one of the Virginia Section HF traffic nets of the ARRL National Traffic System, from February, 1970 to the present time, an unimaginable tally of 918 net sessions. While Morris has decided to retire as DEC of District 3, he plans to continue his participation in ARES/RACES, a decision for which he should also be commended. NM4R continues his service to the community, to the Club, and to Amateur Radio as NCS of the Virginia Late Net, and as the trustee of the Albemarle Amateur Radio Club license, WA4TFZ.

Following the first drawing for an Antenna donated by Joe (W2PVY) which found Marty (KF4FRO) returning his ticket, John (W6UZ) won the drawing. (See additional information on this story elsewhere in this newsletter.)

A Video of the repeater site showing the destruction was shown. It was taped by Greg (N4PGS). A copy of the tape was donated to the Club.

Hein (N4FWA) gave a brief presentation concerning the factors related to the repeater circumstances. He mentioned that Donnie (N4RAG) has indicated that we could use the 146.895 repeater as much as we wished. Some other issues discussed were of a more sensitivity nature and will not be specifically reported. However, places are being considered for placing the repeater systems which were removed from the repeater site. Long term plans must wait for decisions to be made by persons outside of the AARC.

It was also noted that James Bailey (KB4ZIN) of the 146.760 repeater in Williamsburg, Va.,

offered to loan us an entire, tuned-up 146.760 repeater, if we needed it. Now that is being a good neighbor.

Dave Damon (K4DND) presented a very good program on RACES/ARES. It was a good compliment to the one he had presented a few months ago. Information regarding the new State level identification card was provided.

Greg (N4PGS) briefly mentioned some information related to the near-at-hand Dogwood Festival. Did we wish to participate? Silence was heard.

The meeting adjourned.

The following Treasurer's Report was submitted by Sharon (KO4OC) for inclusion in the Minutes.

**INCOME**

Donations	
Education	170.75
Raffle	38.00
Repeater	19.50
surplus	275.00
Total Donations	503.25
Dues	1206.00
Total Income	1709.25

**EXPENSES**

Equip.parts	22.95
Post, publ	350.00
Telephone	118.45
Total Expenses	529.20
Balance Forward	4298.71
Overall Total	5478.76

Submitted by Joseph D. Fritz, Secretary

**AARC CLASSIFIED ADS**

New ADS may be placed directly to the Editor: 804 973-1738 or kd4rwx@aol.com

\* UPDATED 3/25/1999 \*

**2/11/99 FOR SALE: 32 FOOT TOWER**  
Grayson, KF4FYI, has for sale a 32 foot tower with a 10 inch base ready for rotator for \$125. Call him at 804 293-4885 if you are interested.

**3/4/99 FOR SALE: 12 VDC FANS**  
Ron, K4RKA, has a few (new) 5 inch box or muffin fans for sale for \$2 each.

**3/4/99 FOR SALE: 2M TRANSCEIVER**  
Joe, W2PVY, has for sale or possible trade a Kenwood TR2600 handheld 2m transceiver. Call him at 804 589-1495, if you are interested.

**3/13/99**  
Looking for an R-390 or R-390A HF receiver. Carter Elliott WD4AYS, 804 979 7383

Albemarle Amateur Radio Club  
P.O. Box 6833  
Charlottesville, Virginia 22906

<http://members.aol.com/wa4tfz/aarc/>



## AARC BULLETIN

Vol 1999 No. 04  
APRIL

### DEADLINE FOR EACH ISSUE

The 23rd of each month

#### Contact Information

On The Fritz Publications  
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TO CORRECT LABEL INFORMATION CALL PHONE 973-1738: Your License expires.. Oct 31, 2004 D Y A  
KA4JJD G 1999

CURRENT MEMBER

Michael F. Rein  
109 Sturbridge Rd.  
Charlottesville VA 22901

22901X2113 43



### AARC CALENDAR OF EVENTS

Notify Joe (KD4RWX) to place information on the calendar.

Month	Day(s)	Activity
April	11	MS Walk
Apr:	13	Meeting
April	17	Lake Monticello Boat Race
April	25	March of Dimes Walk
May	8	VE Session (NRAO)
May:	11	Meeting
May	15	Tour de Cure Bike Tour
June	5	MS 150 Bike Tour - 1st Day
June	6	MS 150 Bike Tour - 2nd Day
Jun:	8	Meeting
Jun	26-27	Field Day
Jul:	13	Meeting
August	8	James Madison Bike Stage Race
Aug:	10	Picnic Meeting
Sept:	14	Meeting Nominating Committee named
Oct:	12	Annual Meeting Elections and Committee reports; Nominations due for Ham of The Year
Nov:	9	Meeting
Dec:	14	Meeting

### PUBLIC SERVICE SCHEDULE

DATE	EVENT
Sun April 11	MS Walk
Sun April 17	Lake Monticello Boat Race
Sun April 25	March of Dimes Walk
Sat May 15	Tour de Cure Bike Tour
Cancelled	Walnut Creek Road Race
Sat June 5	MS 150 Bike Tour - 1st Day
Sun June 6	MS 150 Bike Tour - 2nd Day
Sat Aug 8	James Madison Bike Stage Race

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.

Greg (N4PGS) and Hein (N4FWA)

### BIRTHDAYS: APRIL

KF4JHD.....	Charles.....	2
WA4MHP.....	LeRoy.....	5
KD4RWX.....	Joseph.....	6
KF4AGT.....	Alfred.....	7
KE4BRH.....	Alisa.....	8
W2PVY.....	Joe.....	10
KF4AGV.....	Ruth.....	11
no call.....	Daryl.....	11
KB4MUF.....	Ernest.....	13
W2HD.....	Harry.....	15
AD4YM.....	James.....	15
N4FWA.....	Hein.....	17
KB4DJN.....	Elwood.....	29
W3WAC.....	James.....	30

### CLUB MEETINGS

Regular Meeting: Second Tuesday of each month at 7:30 p.m.  
Board and Technical Meetings: First Tuesday of each month at 7:30 p.m.  
Meetings are held at the National Radio Astronomy Observatory (NRAO) building, Edgemont Road (UVA area)

### WA4TFZ REPEATERS

INPUT/OUTPUT	TONE ACCESS (if required, etc.)
146.160/146.760	88.5 Hz
(If tone is enabled, you can turn the tone off and back on temporarily by:	
Temporary Tone OFF	DTMF 325*
Remove Temporary Tone Off	DTMF 326*
Emergency Autopatch to 911 Center	DTMF 911*
Emergency Autopatch to State Police	DTMF 918*
Autopatch exit	DTMF 0*
Time	DTMF 10*
Tone status of repeater	DTMF 700*
146.325/146.925	88.5 Hz if enabled
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

### LOCAL NETS: (146.760 repeater)

Monday night: Information Net (each Monday) 7 PM  
YL Net (1st Monday of month) 8:30 PM

Thursday night: Northern Piedmont Emergency Net & Swap Net & Technical Session (each Thursday) 8 PM

### LUNCHEON:

Wednesday: Area Hams gather at the Old Country Buffet (OCB) next to TOYS R US on 29 North 11 AM - 1 PM