

# AARC

## WA4TFZ

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



KA4JJD 1993  
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# AARC Bulletin

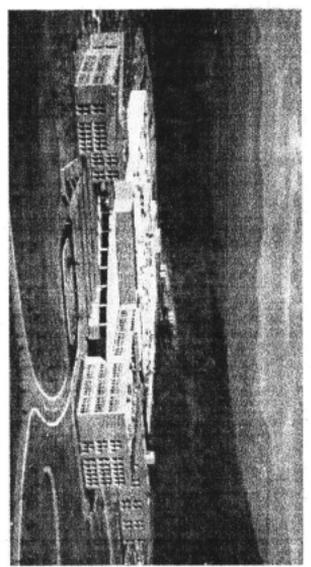
November, 1993

Newsletter of the Albemarle Amateur Radio Club, WA4TFZ



## November Meeting and Tour

### At GE Fanuc



This month:

*220 Repeater*

*Radio Direction Finding (RDF)*

*Virginia Slow Net*



## From the President's Desk

I can see from the calendar that the time has come to get the files in order and begin to prepare for the transition to new officers. Our club is fortunate to have the breadth of talent and experience that we have among our membership. Congratulations to the new administration. There is much work to be done. You can count on my support.

During the course of the past few months I have had the opportunity to reflect on how an organization like ours in some ways mimics the characteristics of finely tuned circuit. I am certain that many of my engineer friends will shudder at the thought of such a metaphor, but grant me some license here please.

A vibrant organization contains individuals with a divergence of attitudes, opinions and experiences. We respect one and other and share a core purpose, that of a strong desire to further Amateur Radio. We can have a difference of opinion and still come to a consensus and move ahead. Our ideas on what it takes to further Amateur Radio may vary, but it is our love for this great hobby, our common experiences and our mutual respect for each other that hold us together. It is, in fact, that interaction of opinions that through reason results in a consensus which enables us to move forward and be a more effective force for our common purpose than we would be otherwise. A little like oscillation and resonance. The key to keeping all of this working is open communications and mutual respect. Let us never confuse an honest difference of opinion and debate as a conflict of motive or personality. When these signals get mixed in with the fundamental, a great deal of dissonance and distortion occurs and often unwanted harmonics are generated.

It has been an honor to serve as your president during these past five years. You have accomplished a great deal as a Club during that period of time. As my term draws near to its conclusion, it is my hope that you will provide our new officers with the same level of support that you so kindly have given to me.

Bob - KM4DU



## Wanted

WANTED: SWR/WATT METER For 2 mtrs. also 2 METER MOBILE RADIO. Call me at (703)943-9968 or leave message on WA4TFZ PBBS. Richard, N4SIH.

WANTED: MANUAL FOR IC-251A This is an olderrig but if you have one, please call Buddy, AD4CG at 703-825-2835 or contact Ron, K4RKA.

WANTED: 6 METER FM BASE RIG Call Don, KE4DDR, at 978-1439.

WANTED: VGA or SUPER VGA COMPUTER MONITOR Please call Ben, W4SXH, at 973-3703

FOR SALE: HTX100 10 Meter SSB MOBILE Transceiver. If interested, call Don, KE4DDR, at 978-1439.

FOR SALE: 7 pin, 9 pin 2 size octal CHASSIS PUNCHES If interested for \$5 each, call Joe, W2PYV, at 804-589-1495.

FOR SALE: Realistic PRO-2021 Scanner. Covers up to 512 MHz, receives AM and FM transmissions, and can operate on either 120VAC or 12VDC. Is fully programmable thru direct-entry keyboard. Asking \$150. Call Tom, AD4AD at 804-589-4529 or send a message WA4TFZ PBBS, 73

FOR SALE: SEVERAL ITEMS Carl, N1EVO, a recent visitor to Charlottesville, has several items for sale. The price includes shipping. If interested call him at 207-537-2413.

Health SSB receiver, SB300 for \$70  
 Heath HW16 CW transceiver & VFO. Covers 80-40-15. \$100  
 Radio Shack HTX100 10 meter SSB & CW transceiver for \$135  
 AA engineering QRP 20 meter transceiver for \$145  
 Triton IV transceiver w/2 CW filters & SSB filter plus 20A supply for \$400

FOR SALE: Microwave Modules Ltd 100 watt 70cm Amplifier Call Aaron, KC4WNL, call at 804-842-3169.

FOR TRADE: PHONE PATCH Richard, KO6EV, has two phone patch units which he would like to get operating. He will give one to anyone who will help him get one working at his station. If interested and willing call him at 973-3723.

## NOVEMBER MEETING NOTICE

The November Meeting of the AARC will be held at GE Fanuc on Rte 29 N. Thanks to Greg, N4PCS and Bill, N4ZZB, we will be afforded the opportunity to tour the facility. If this tour is anything like our tour of Sperry, you won't want to miss this one. Plan to arrive between 6:30 pm and 7:00 pm. Talk-in will be on the 146.76 repeater. Please observe the following rules:

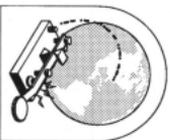
- 1) Visitors must be at least 12 years old.
- 2) Visitors must be escorted by a GE Fanuc employee at all times.
- 3) Please stay with your tour guide.
- 4) Wear safety glasses in the areas requested by your tour guide. Safety glasses will be made available.
- 5) No eating or drinking in the manufacturing area.
- 6) Cameras are not allowed. If you have any questions, please call Greg or Bill.

AARC Bulletin  
 P.O. Box 6833  
 Charlottesville, VA 22906

Editor: Melissa Lang, KD4GRM

Staff:

Ed Lang, KC4YLX  
 Pat Wilson, NØRDQ  
 Harry Dannals, W2HD  
 Boris Starosta, KC4ZKA  
 Bob Pattison, KM4DU



AARC  
 WA 4 T F Z

The Albemarle Amateur Radio Club is a public service organization advocating amateur radio and service through regional and world radio communications. The AARC Bulletin is published monthly for the membership. Correspondence and editorial submissions are welcome.

First, I want to congratulate our 1994 Board of Directors.... Greg, Rick, Sharon, Melissa, Bob, Sam, Mike, Hein, and Harry. I think our club is in very capable hands and I look forward to the next year. Well, maybe with one exception.... over the past 11 months, I have had the honor of serving you as your elected Vice-President. I am here to tell you that I could not have done it except for the advice and counsel of many good hams and dedicated club members. That is why this particular column is hard for me to write. It seems that there is apparently some disgruntlement among some of those same people who have been so invaluable to me. I know the reasons I have been told and I suspect there is probably more to it, but I'm not here to pass judgement. What I am here to say is that, over the years, this club has traveled far, and we traveled far this year also. I am very proud of our club and its members, but it took everyone to make the club what it is, and if we want to continue our growth, it will surely take all of us pulling together to make it happen. I am very upset that friends are at odds due to a lack of communication. I find it difficult to understand why, in our hobby, this should be so. I sincerely hope that those involved can resolve their differences for their own good and for the good of the club. I have talked before about being involved in the club, but even more important, is communication. In a club of our size, differing opinions and viewpoints are a given. If we have good communication, these differences make us better. Without communication, we might as well pack it in and go home. One person didn't start this club, one person didn't get us to where we are today, and for darn sure one person won't take us into the future. It takes all of us and all of our differing opinions to make it happen. I sincerely hope that next month I will have a more upbeat column to write.

Here's hoping.....

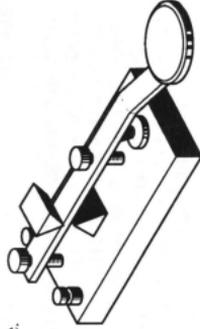
Bill - KC4TQF

The Virginia Slow Net has been brought back to life, folks, and meets every day at 6:30pm local time on 3680. The net is both a traffic handling (NTS) net and training net. This means you can increase your speed here by checking in and taking some practice messages. The Net Manager is N4KSO and the net is a controlled net. I hope to hear some of you folks checking in from time to time. You do not HAVE TO take training or traffic to check in and say hi.

Again, the net meets at 6:30pm local on 3680 and runs at 10 wpm.

Hope to see ya there.

Pat - NØRDQ



### Results of last VE Session

The VE Session held in Charlottesville on October 16 brought the following results: twelve candidates sat for 26 elements of which 15 were passed, four new licenses and five upgrades resulted. There are 4 new No-Code Technicians; Melvin Gregory, Franco Venturi, Adrienne Stove and Chris Meyers. Boris Starosta, KC4ZKA, and Bryan Fox, whose Novice ticket has not yet arrived, upgraded to Technician Plus. Aaron Killen, KC4WNL, passed General and Alan Porter, KD4DNU, got his Advanced license, while our TI member, Richard Dale, KO4EV, is a proud possessor of brand new Extra Class privileges. Congratulations to all the above and our condolences to those who missed upgrading by a slim margin. YOU'LL MAKE IT NEXT TIME!!!!

John - W6UJZ

Bob Ross, WA2MFI, as a member of the Nominations Committee presented the nominations from the Committee for election of officers. Nominations from the floor were requested. The new officers are:

President - Greg Faust, N4FGS  
 Vice-President - Rick Berman, KO4WQ  
 Treasurer - Sharon Duvall, KO4OC  
 Secretary - Melissa Lang, KD4GRM  
 Directors - Hein Hyatum, N4FWA; Mike Duvall, AC4ZQ; Harry Daniels, W2HD; Bob Pattison, KM4DU; Sam Gentry, N4WYQ

Bob Ross, WA2MFI, presented an interesting program on his portable homebrew QRP rigs.

Revisions to the By-Laws was presented to be voted on in December. The revisions are as follows:

Article III - Officers, Section 5: "... The treasurer shall receive and receipt all monies and make payments only as directed by the following approvals: Up to \$50 by direction of the President; up to \$250 by direction of the Board and all above \$250 with Club approval. In addition, he shall..."

Rationale: If approval by the Club were to be required for ALL payments, many bills would have to wait weeks before they were paid and certain urgent expenses might be delayed.

Article VI - Committees, after "... Club publications." Add the following: "Additionally, this committee is responsible for Public Relations and releases pertaining thereto."

Rationale: This is an important club activity and should be assigned to the "writers" as their responsibility.

Bill Haru, N4ZZB, talked about next month's meeting. The Club will visit GE Fannuc. The 15 element beam was raffled off and Richard Dale, KO4EV, won. The meeting was adjourned at 8:47pm.

If there are corrections to these minutes, please contact Melissa Lang, KD4GRM.

## 220 Repeater Report

Now that the 220 Machine is up and running I thought it might be informative to review the history of this effort. For many of the people who worked to pull this together it was our first exposure to the "other side" of repeater operations. It has been and still is a learning experience.

At a Technical Committee Meeting in 1991 I suggested that the AARC pursue the goal of placing a 222 Mhz Repeater on the air under the WA4TFZ call sign. Why a repeater for 222 Mhz? There were several reasons. As a Special Services Club we have an obligation to provide services to the entire Amateur community in our area. We felt that pursuing a 222 repeater would open FM services to Novices who have no other active VHF options in this area. I have also felt for quite sometime that if more people used the 222 allocation, we would be less likely to lose the 3 Mhz that remains of this band.

Ron Ritchey, K4RKA then Technical Committee Chairman asked if I would form a committee to pursue a 220 repeater and I agreed. The following individuals stepped forward to join the committee: Greg - N4FGS, Bill - N4ZZB, Steve - N2LNV, Harry - W2HD and Bill - KC4TQF. Harry offered to let us meet at his house and the work began.

The committee started meeting in the fall of 1991. We discussed the wide range of options that we had to offer repeater services for this band, we divided into areas of interest, did research and reported back. In March of 1992 we developed a budget and filed an application with SERA for frequency allocation for a repeater to be located on Buck's Elbow. In May of 1992 we conducted antenna tests from Carter's Mountain comparing the results achieved with the 220 Isopole and 220 Ringo that belong to the club. The Isopole won and we started to talk about re-coordinating our location for Carter's Mountain. In June of 1992 we changed our application to locate the repeater on Carter's Mountain. On August 5, 1992 we received word that SERA had approved our application and granted us a frequency allocation on 224.76. The clock was running and we were told that we had 6 months to get the repeater up or we would lose our allocation.

The Treasurer's Annual Report was given by Ed Bernet, WA4UJ1:  
For the period of October 1, 1992 to October 1, 1993

Bank Balance as of Sept. 16, 1993:

Club Fund .....	\$987.38
Packet Fund .....	10.00
Repeater Fund .....	660.00
Balance .....	\$1,657.93

As of October 1, 1993, the Club has 144 paid-up members, including 36 family members and 2 Junior members.

Major Receipts:

Membership Dues .....	\$1,970.00
Surplus & Hamfests receipts .....	978.55
220 Repeater donations .....	727.50
Packet donations .....	253.39
146.76 Repeater donations .....	110.00

Major Disbursements:

New 146.76 Repeater hardware .....	\$1,471.25
220 Repeater (still owed 567.50) .....	1,295.00
Printing & Mailing .....	1,198.64
146.76 transmitter upgrade .....	556.00
Books for classes (mostly reimbursed) .....	423.00
Certificates .....	285.17
450 Repeater upgrade .....	189.93
Insurance on repeaters & packet .....	158.00
Refreshments at meetings .....	99.64
Picnic .....	40.00

I am very pleased with the financial support that we received. Ron donated over \$200 in hamfest proceeds in the Fall of 1992 to our effort. I donated \$100 and a member of the club who was not a member of the committee donated \$100. Harry donated a Midland 220 rig that the club raffled and raised over \$100. Greg donated a 2 Mtr Amp that raffled for more than \$100 and Bill's 2 Mtr Beam brought in \$42. In the February 1993 Meeting the Club approved the Technical Committee's recommendation that \$551 be allocated from the Repeater fund to the 220 effort.

In May of this year the 220 Committee was within \$250 of having the money necessary to acquire the repeater. We were concerned that if we did not get on the air shortly that we would lose our coordinated frequency. We asked the board to advance the additional monies needed to order the repeater and the board agreed. Since that time we have completed several successful raffles to support the effort.

The 220 Repeater is a Hamtronics REP@200 with the Low Standby Current Option. The input frequency is 223,160 the output frequency is 224,760. The antenna is an Isotope mounted on the back of the repeater shack. The duplexer was built by Bud KB4JN1 and Gene W4IWW; modified and tuned by Hein N4FWA. The system is up and operational and can be accessed from Greene County using a Handheld running 2 watts with an extended antenna. Our future plans include a possible link with 146,760, a higher antenna location and possible solar recharging of batteries.

Since the 220 repeater has been on the air, more than 20 stations have made contacts using this service. We are on the air thanks to the work and contributions of many individuals. If I failed to mention anyone above please accept my thanks for your efforts and my apologies for the omission.

- Bob Patterson, KM4DU

**The system is up and operational and can be accessed from Greene County using a handheld running 2 watts with an extended antenna.**

toward making Amateur Radio more widely known in Charlottesville and surrounding areas. The Committee thanks all those who contributed material for the Bulletin this year and encourages everyone to contribute material in the coming year.

**Public Events -** In the period of October 1992 - October 1993 AARC participated in 16 public events. One event, the March 13 Snow Storm, was a real emergency. Three events, the Skywarn test, the Airport exercise, and the UVA Medcom callup were "official" drills. The Committee thanks the 177 participants from AARC who helped with these events.

**Education Committee -** Two semesters of study were offered this year. One in late January and the other in early September. Nine new amateurs came from the January session, including five Technician Class and four Novice Class licensees. The September session, still in progress at this report, has an enrollment of 11 students. Course material went through some changes this year which included adding seminars and laboratory sessions, using HF operation of phone, CW and RTTY modes, to the courses. These have been enthusiastically received by the students. An instructor apprenticeship program has been instigated to allow new teachers to learn to teach under the guidance of more experienced instructors. After serving as an apprentice for one semester, these apprentices will take on their own classes. The Committee thanks those who served as guest speakers this year and encourages others to become speakers as well. Also, anyone who would like to join the apprenticeship program is welcome.

**Awards Committee -** The Committee originally budgeted \$150.00 for startup, but through donations, startup costs were limited to about \$90.00. The Committee is currently sponsoring four Operational awards and four Achievement awards. The Operational awards are: Big Ten, Worked Loisa States, Worked Border States, and All American Award. The Achievement awards are: Lifetime Achievement, Ham of the Year, President's Award, and Elmer Certificate. The next award which will be instigated will be a VHF/UHF award and a Public Service award. The Committee congratulates the individuals who have received awards this year and encourage others to work towards these awards.

## News From the Awards Committee

The following persons have been issued the indicated AARC Awards:

NAME	CALL	AWARD	ISSUED (x)
Pat	NØRDQ	A	B C D
Bill	KC4TQF	x	x x
Joe	KD4RWX	x	x (49)
Al	KD4NRE	x	x (50)
Ean	KD4SCV	x	x (44)
Gerald	KN4FM	x	x (19)
		x	x (50)

A = BIG TEN worked all call areas

B = Worked All Border States

C = Worked Loisa States

D = All-American

Applications can be obtained from Joe, KD4RWX, with an SASE to his address. Please check your logs and if eligible, apply. The certificates are very nice. Future Award updates will only list newly issued certificates.

Joe - KD4RWX

## Birthdays This Month

This month, we congratulate Melissa Lang on surviving another year of the rigors of the HAM hobby (including, but not limited to, financial duress sustained at the hands of - or at least credit card of - her husband Ed).

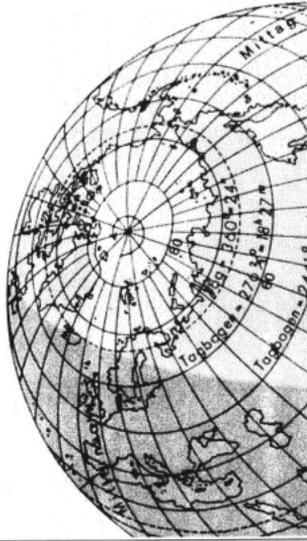
Boris - KC4ZKA

I am interested in organizing a group of radio operators who are interested in developing a more structured and regular radio direction finding program. This group will not operate as an exclusive group, rather its primary purpose will be to increase the level of RDF activities through group planning and participation. All RDF events would be open to anyone. The skills and equipment developed and the activities undertaken should permit participants to enjoy, more fully, one more aspect of the wonderful world of Amateur Radio. Some expected outcomes of an organized group include: building specialized RDF equipment, enhancing skills needed to find sources of undesired signals or emergency signals, participation in competitive activities (individual and/or teams), training others interested in RDF, presentation at club meetings, possibly working with other RDF groups from the surrounding region, and many other outcomes too numerous to mention at this time.

I would like to have a basic organization by January 1, in order to create an annual competitive score basis. Planned activities may begin sooner.

If you have an interest in this activity (even if you cannot participate in mobile operations, but could participate from your base station) please contact me by letter, phone, packet, or radio.

Joe - KD4RWX



Bill Bearden, KC4TQF, brought the meeting to order at 7:24 p.m. Bob Pattison, KM4DU, was not present. A 15 element beam was put up for raffle and tickets were sold for it to be raffled off at the end of the meeting. Rick Berman, KO4WQ, announced that new decals for Mobile Watch are now available. If you have not received one yet, please get in touch with Rick. Applications for membership were presented. Request for membership from Ean Schiller, KD4SCV; Bernard Harris, K4PRT; Steve Travis, N2EPB; Brian Fox, license pending and Benjamin Mossby, license pending, were voted on. All were accepted for membership. Annual Committee reports were presented. They are summarized here. Melissa Lang, KD4GRM, has complete reports filed with these minutes.

Technical Committee - A regularly scheduled meeting, the first Tuesday of each month, was instituted to provide a common meeting ground to plan many of the activities which were handled by the committee this year. The largest project undertaken by the Committee this year was the upgrade of the repeater suite on Carter's Mountain. The repeater building was painted and repaired, and the area cleaned up and mowed. Also, the Club now has a new Hamtronics 220 MHz repeater, a new ICOM 2M repeater and Ed Lang, KC4YLX, has set up a DX Node. All this equipment is located on Carter's Mountain. Ongoing plans are to beef up the battery system, install new coax and antennas and to add more packet capability to the existing packet digipeater. Work will continue on the 925 machine as well. The Technical Committee members thank everyone who was involved with this year's projects and supported the activities of the Committee.

Publications Committee - The AARC Bulletin has undergone a great deal of change during the year. It has gone from being a quarterly publication to a monthly publication. The format has also undergone changes and the Publications staff continue to make improvements on the newsletter to give Club members the best possible Bulletin. Also, the Publications staff has worked to reduce costs of reproduction and mailing, utilizing a reproduction facility which costs only the amount of the paper needed to print and using bulk mail to send out the Bulletins. The Publications Committee was also responsible for the public relations for AARC this year and Pat Wilson, NØRDQ, did much