



*Paul, WB9HGZ, Joe, W2PVY, and June, KD4ATH, seen showing off their club jackets at the Virginia Beach Hamfest and division Convention, October 21. Others AARC members spotted at the 'fest were KE4YLR, KD4RWX, KF4MEF, KO4OC & AC4ZQ, KE4OID & Darrel, and KT4UO & KE4WPF. Did we miss anyone?*

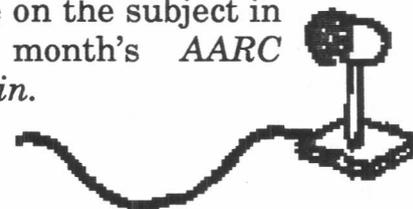
## October Club Meeting

Tuesday, October 15,  
at 7:30 pm

*National Radio Astronomy  
Observatory Auditorium  
Edgemont Road (UVa area)*

*See you there!*

Say, what's the difference  
between a crystal and a  
dynamic microphone?  
Watch for W2PVY's  
article on the subject in  
next month's AARC  
*Bulletin.*



## Albemarle Amateur Radio Club Elections

At the October AARC meeting, AARC members will elect Officers and Directors for the next year. A Nominating Committee was appointed at the September meeting (See Minutes, p. 7). This committee will present a slate of Officers and Directors at the October meeting. The list was not available in time for this newsletter issue. If you wish to know prior to the October meeting who will be nominated by the committee, you may call Joe (KD4RWX) at 804 973-1738 after October 1st.

As is always the case, members may nominate additional candidates from the floor at the appropriate time during the election process. However, you must be present to vote and to nominate.

Joe (KD4RWX), Chairperson of the Nominating Committee: 1996



## Veep's Corner



Fall is here and it's back to school time again! Not just for the regular students, but for some soon-to-be hams as well. The AARC classes have begun and some more aspiring hams are on their way to getting their "passport to radio" - I think that's what the ARRL calls it. What do you suppose these hams have to look forward to? Is it a ham world full of a bunch of sit back and take it easy types that like to press the button and chew the rag? Is it a group of crusty old timers who are more concerned with keeping things the "way they've always been"? Or are there people out there who are truly fired with the "spirit" of ham radio - learning and doing, trying to understand what makes those little black boxes really work?

You be the judge. Amateur Radio is facing some of the biggest challenges it has ever seen, challenges to its very existence. It's not outside forces that are putting it in peril, although they are more challenging than they've ever been. How does 1200 baud VHF packet compare to 56Kbaud Internet surfing? Compare a VHF handheld to a cellular phone. Yes indeed, these technological challenges are greater than ever, but by themselves they won't spell the end of Amateur Radio. We will. Only hams themselves can do that. And only if we stop doing what we're good at - exploring.

Hams have a tradition of looking for new ways to do things, searching for innovative methods to communicate. It was very encouraging to see the number of folks at the August meeting who brought in their home projects and kits. Everyone who tries something different, plays with a new concept, puts together a kit or even builds one of their own designs is an explorer - someone who wants to learn more. So when you talk to one of the soon-to-be hams remember to encourage the *real* skill involved in being a ham - teach them to explore.

Greg, N4PGS

## From the Valley

Terry Henderson, KT4UO

The Zero-Milepost Bike Club of Waynesboro sponsored their annual Tour de Valley Century on Sunday, Sept. 1, 1996. Once again, ham radio operators were called into service, providing radio communications for this 100-mile bike ride.

Those participating were:

- Bill, KC4TQF, acted as net control
- Tim, KE4WPF
- Terry, KT4UO
- Sam, KF4EKF
- David, KF4JCY
- Jim, KF4JDB
- Stin, KE4SSF, (bicycle mobile. Yes, he rode in the tour with his HT strapped to his bike!)
- Brown, N4ZHV
- Doug, KE4RMD
- Ed, KS4RS, operated from within a hole -- at the Buffalo Gap Wayside Park, a virtual radio dead zone with mountains towering on 3 sides. This is where one of the rest stops was, and we had to have someone there.
- And Ed, KA4VMP, operated from his driveway (the course runs past his house) while babysitting.

A special thank you to the owners of the 146.895 repeater for so generously allowing us to tie it up for the all day event. Without that, we would have had a far greater challenge on our hands.

It was a beautiful day for the event, during which no injuries were incurred. The bike club treated all hams very well, and is inviting us to assist next year. Mark your calendars: it is always Labor Day Sunday, and takes all day. Yes, we were there at 06:30 local time! And had a great time doing it, too!

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**Deadline** for the November *AARC Bulletin* is **October 24**. Send your articles and news items to WB9HGZ or WD9EIA at: 4300 Sylvan Lane, Charlottesville, 22911, or wd9eia@super.zippo.com (email), or through KE4UKX on the WA4TFZ packet bulletin board.

# AARC and ARES/RACES

Dave Damon, KE4YLR

Last newsletter, I briefly discussed the structure, organization and operation of ARES. What about RACES, the Radio Amateur Civil Emergency Service? Some of you may not know that RACES was activated on Friday, September 6 when the remnants of Hurricane Fran visited us. When exactly was it activated? I'm not really sure, but let me try to explain what I perceived about the sequence of events on Friday.

When Kaye Harden, KE4UKW, the Emergency Services Coordinator for Charlottesville, Albemarle County and the University of Virginia, called N4FWA early Friday morning, we were being called up as ARES. Later in the day, when the Federal Government designated Virginia as a disaster area, we were then transferred from an ARES operation to a RACES operation. RACES administration is through FEMA, the Federal Emergency Management Agency and is activated during periods of local, state, or national civil emergency.

The shift from ARES to RACES, for all practical purposes, is transparent to us and our operations. Amateurs that operate in RACES (unlike ARES), are required to be officially registered at the local level, they operate under their own station licenses or under the license of existing RACES stations. However, no new RACES station licenses are being issued, and I don't think that we have any existing RACES stations in our immediate area. All the rules of normal amateur operation apply to RACES, unless specific instructions to the contrary are issued by the FCC which could happen in the event of some massive national catastrophe or war, which would certainly qualify in the first category. In the Virginia Section, ARES and RACES are substantially identical, and aiding the transparency that we see locally is the fact that N4FWA has used RACES registration as the basis for our local ARES operation. Interestingly, while operating under RACES, stations are not permitted to communicate with stations not operating in a RACES capacity, and only civil-preparedness communications are allowed (Section 97.191).

Obviously, issues like this are not what we should be concerned about. Our abilities, preparation, and willingness to provide whatever emergency communication is required are important. And those characteristics were certainly evident on Friday, September 6, by all the stations that made themselves available during Fran's visit. I know how much harder it is to be available when your own property may be at some risk, and you would really rather be home keeping an eye on your own situation. So thanks to all the participating stations. Once again the Albemarle Amateur Radio Club rose to the task at hand.

**Our abilities, preparation, and willingness to provide whatever emergency communication is required are important.**

The number of stations that have been checking into the Northern Piedmont Emergency Net over the last several weeks is also a measure of our interest in developing our emergency communication skills. I would like to thank all those stations and in particular to thank Morris, NM4R, for allowing us to run these drills. I know that this format requires more listening and less talking for the participating stations, both due to the different types of exercises that we are trying to run, and to the number of stations that are checking in. We of course will try to keep these types of drills going, and appreciate the patience and cooperation of all the members of the AARC. As I said once before, it may not always be smooth going, but we will try to plan them out as fully as we reasonably can. The club members responsible for the drills are Pete, AD4TU, Pete, KC4UCK, Greg, N4PGS, and Bob, N6AAR. So the next time you talk to any of them, be sure to give them any comments or suggestions for future activities as well as any kudos or lashings you think appropriate.

You will find a new registration form included with this newsletter. (See pages 5 and 6.) If you are interested in ARES/RACES operation, please fill out this form and get it back to me as soon as possible. It's time to get some of this paperwork up to date, and the information that you send back on this form should give us a real update on equipment, interests and abilities.

One last comment about our recent activity with the National (see ARES/RACES, p. 4)

# WHAT? ANOTHER RUBBER DUCK!

Harry Dannals, W2HD

Recent drills on the Northern Piedmont Emergency Net (NPEN at 8PM each Thursday on 146.76) have emphasized our ability to contact stations on simplex or alternate frequencies, including the "925" repeater atop Martha Jefferson Hospital. These drills certainly reveal something about our respective stations and how adequate they are when we don't have that 1500-foot high repeater on top of Carter's Mountain. In many cases, some stations were without communications when Carter's was denied to them by the drill.

This shouldn't be! However, it becomes very easy to rely on the big signal from the "hill!" It gives us the power of sitting on top of the mountain with an effective signal many times the two watts or so we obtain from our HT's. Why do anything to improve the situation?

Well, fellows and gals, there may come the time when our repeater atop Carter's may truly not be available. And then... it's off the air unless we prepare for that possibility. Not all of us can have the big tower with the dual-band gain antenna up at sixty or more feet. However, all of us can put an antenna somewhere in our present stations which is higher and more efficient than a little rubber duck sitting on the HT!

What does it take? Really, not very much. A simple ground plane antenna made out of an SO-239 panel mount connector and wire, a "J" made out of TV ribbon or ladderline, a vertical dipole made out of a set of spare "rabbit ears" from an old TV set, or a coax antenna made from RG-58U coax can do the job. Installing such an antenna "in the clear" with enough coax to reach from your favorite operating position can do a world of good for your signal.

A recent issue of the "Amateur Radio Trader" had several of the antennas described above with cutting and assembly details. If you need copies of the instructions, just holler. I'll have an example or two of these antennas at the next meeting.

Remember, these are low-cost antennas. You can always buy better antennas if you want to spend the money. However, it isn't something you

must do. Several years ago, KB4JNI described an antenna to the club known as a collinear. It was made out of miniature coax, could be folded up and put in your pocket and would perform electrically better than many of the commercial antennas.

Take a look at your station. How did your equipment perform in the recent drills? Could your station be better with a small investment in time on something better than a "rubber duck?" I'll bet dollars to donuts that it would.

73, Harry, W2HD

## New Ham In Town

One of the newest AARC members, Nancy Holliday, passed her Technician exams on Saturday, September 21, at a VE Session in Chester, Virginia. The next day she attended her first Hamfest in Virginia Beach where she was able to obtain some equipment so that she can get on the air as soon as her call sign is issued. So listen for her melodious voice soon.

Congratulations, Nancy. You did an outstanding job of preparation and now you are a Ham. Welcome to the world of Amateur Radio. We'll be listening for KF4MEF soon.

Joe, KD4RWX

## ARES/RACES

(from p. 3) Red Cross Operation in Charlottesville. We were providing communication assistance from Thursday morning September 12, both from a base station in addition to several mobile stations, through Sunday afternoon, September 15, when we secured the operation. The base station was operating from the National Guard Armory on Avon Street Extended where the Red Cross set up for long term operations. This was not an activity that required a large number of participants, but required a great deal of patience and adaptability by those that participated. Special thanks go to W2HD, N6AAR, N4FWA, KF4FYI, KF4FRP, KE4OID, KO4EV and KO4WQ and those stations standing by and available for duty throughout the operation.

Dave Damon, KE4YLR

**From Colorado:** LeRoy, WA4MHP, sends a new email address. It's: leroy@coloradocrystal.com



D.N. Damon KE4YLR  
Rt. 1 Burnley Station  
Barboursville, VA 22923



To list an item in this section that is NOT on the WA4TFZ packet bulletin board, contact Paul, WB9HGZ or Eileen, WD9EIA.

**AARC Board Meeting Minutes**  
**Date: September 3, 1996**

The Board approved the purchase of a deviation meter for members' use. Notice will be given when it is available.

**AARC Regular Meeting Minutes**  
**Date: September 10, 1996**

The Club Picnic was held this month in lieu of a regular meeting. After some threat of rain and a little shower those attending had some good food and pleasant conversation.

The only official business was the President's announcement of the Nominating Committee. They are:  
 Joe (KD4RWX), Chair  
 Sharon (KO4OC)  
 Kay (KD4CUJ)  
 Ernie (W2EIU)  
 Dave (KE4YLR)

Their recommendations will be presented at the October Regular meeting when elections are held. Members will be permitted to make nominations from the floor if they prefer an additional candidate. The slate may not be finalized prior to this issue of the Newsletter.

The meeting was adjourned.

Submitted by Joseph D. Fritz (KD4RWX), Secretary  
 AARC

**FOR SALE:** Complete HF station for \$600 firm. Consists of: Kenwood TS 430-S HF Transceiver, Astron RS-20A Power Supply, Kenwood SP-430 Speaker; Kenwood MC-60A matching Desk Microphone, and MFJ-941C Versa Tuner II Antenna Tuner. All like new. Call 804-589-2177. Franklin, KB4MUF

**WANTED:** CALL BOOK (8/22/96) Don, KA4MCA, is looking for a recent call book. Call him at 295-7889.

**WANTED:** CRYSTALS (8/22/96) Brian, KF4FRP, is looking for crystals for a 6 meter rig to use on 6 meter repeaters. 8.68333 MHz, HC25U holder MHz & 40 MHz Recieve for 52.070. Also 42.37MHz, 8.678MHz, 42.31MHz, 8.668MHz, all HC25U holder.

**WANTED:** HF RECEIVER (8/22/96) Roger, KF4JMX, is looking for a hf general coverage receiver to receive maritime frequencies. Call him at 804 589-1167.

**FOR SALE:** CHEAP GENERAL COVERAGE RECEIVER (8/29/96) ROGER, KF4JMX, WANTS TO SELL A HEATH GR-64 RECEIVER COVERING BROADCAST TO 30 MHZ. \$20.00. FONE: 589-1167.

**FOR SALE:** TS430S HF TRANSCEIVER (9/5/96) Bob, KB4YQC, wants to sell a Kenwood TS430S hf transceiver with cw filter, ssb filter, and MARS modification. If interested call him at 293-9720.

**FOR SALE:** TH47 450 HANDHELD (9/5/96) Pete, KC4UCK, wants to sell a TH47 440 hand held with 2 batteries & leather carrying case for \$150. If interested, call him at 973-2941.

**FOR SALE:** SB102 HF TRANSCEIVER (9/12/96) Chuck, KS4NW, has for sale a SB102 hf xcvr w/pwr sup, mobile mount & suppy, manual and extra tubes. Good condition. If interested call 804 978-2865.

**ALBEMARLE AMATEUR RADIO CLUB, INC.**  
**SEPTEMBER TREASURER'S REPORT**

INCOME

Donations:	
Hamfest Sales	\$146.00
Repeater	140.00
Surplus Equipment	<u>655.00</u>
<i>Total Donations</i>	941.00
Dues	1192.50
QST Subscriptions	9.00
Textbook Sales	61.00
Jackets (next order)	75.00
August Raffle	<u>50.00</u>
<i>Total Income</i>	<u>2328.50</u>

EXPENSES

Equipment	1210.16
Refreshments	195.00
Entertainment	715.82
Postage & Publishing	677.80
State Corporation Fee	25.00
Telephone	295.48
Insurance	297.31
Charity (Earlsville FD)	100.00
Field Day Expense	72.37
Unpaid Club Jackets	<u>25.00</u>
<i>Total Expenses</i>	<u>3663.94</u>

<b>TOTAL INCOME/</b>	
<b>EXPENSE</b>	<b>-1335.44</b>
<b>BALANCE FORWARD</b>	<b><u>4917.48</u></b>
<b>OVERALL TOTAL</b>	<b>3582.04</b>

*Treasurer: Sharon Duvall, KO4OC*

## Amateur Radio Exam Dates for Virginia

- 10/05/96** (W5YI) Ben Hur. Charlie Poe, 540-546-2323.  
**10/05/96** (ARRL) Toano. Michael Conte, 757-566-8015.  
**10/05/96** (ARRL) Williamsburg. Mike Conte KD4HYT, 804-566-8015.  
**10/10/96** (ARRL) Chesapeake. Pat Phelps KE4URC, 757-421-9598.  
**10/11/96** (ARRL) Galax. Joseph A Kolb, 703-236-8672.  
**10/12/96** (ARRL) Harrisonburg. Brown Snyder, N4ZHV, 703-434-3133.  
**10/12/96** (ARRL) Richmond. Pat Wilson, N0RDQ, 804-779-3351.  
**10/19/96** (W5YI) Chester. Anthony Amato, 804-330-0006.  
**10/20/96** (ARRL) Roanoke. Terrance V Vlug, 540-890-6782.  
**10/26/96** (W5YI) Gloucester. Harry Kepley, N4THN, 804-642-3517.  
**11/02/96** (W5YI) Ben Hur. Charlie Poe, 540-546-2323.  
**11/02/96** (ARRL) Portsmouth. Arthur A Thiemens, 804-484-2857.

*Remember, if you are interested in taking an Amateur Radio exam at any of these sites, CALL AHEAD for information. Not all test sites accept walk-in registrations.*



### Public Service Events

Contact Hein, N4FUA, to sign up for events.

### Through 1996

**HRT1** Sunday 6 October 1996, 1400 EDT  
American Heart Association Walk

**BKR9** Saturday 26 October 1996, 1000 EDT  
Bike Race, south of Charlottesville. Start and finish at Walnut Creek Park.

**HRS1** Saturday 2 November 1996  
Montpelier Horse Race.

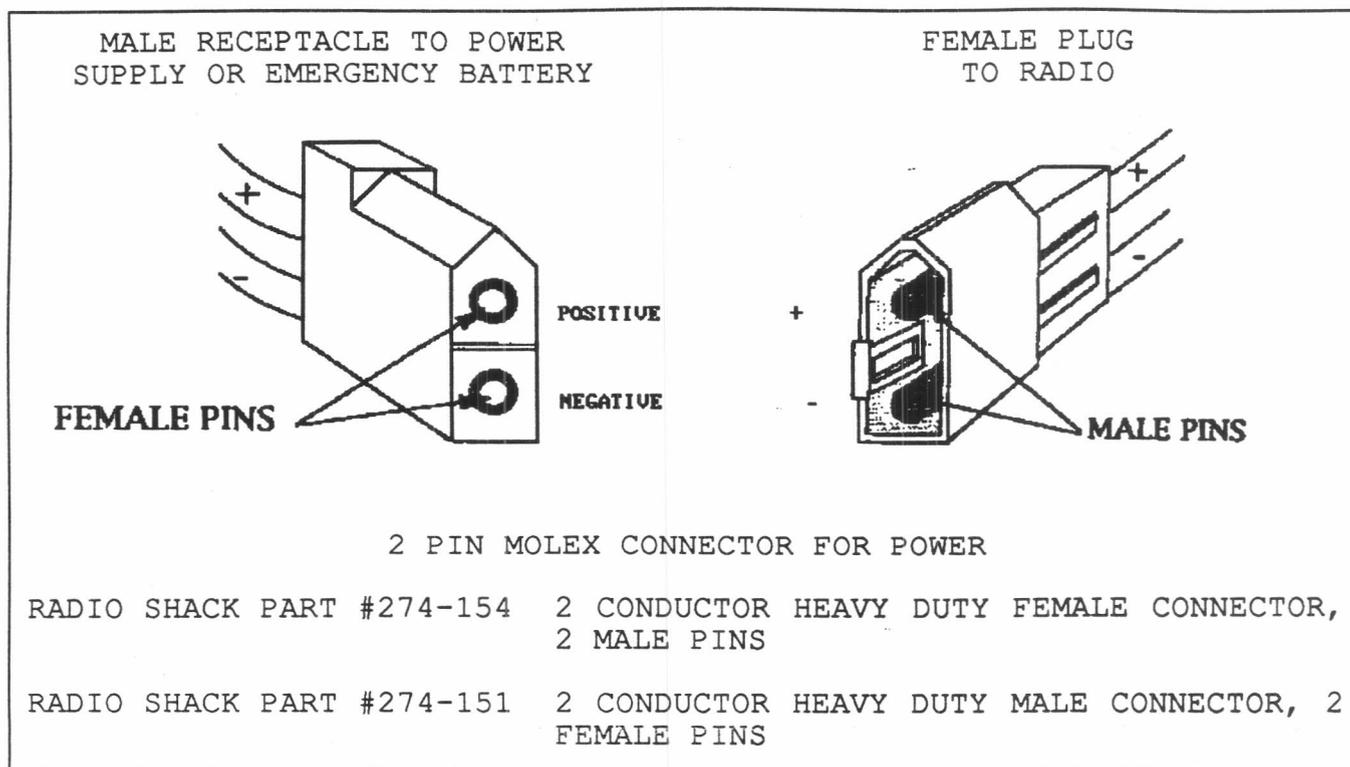
### Other possible/probable events:

Diabetes walk -- ??

OCTOBER 1996						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		<b>1</b> Board & Technical Meeting 7:30 pm ©KN4FM	<b>2</b> Lunch Old Country Buffet 11-1	<b>3</b> ARES Net 8:00 pm	<b>4</b>  ©KE4UFP	<b>5</b> 6-m net 50,200 8am  ©KD4HBX
<b>6</b>	<b>7</b> INFO-NET 7:00 pm 220 Net 8:00 pm  ©KE4OIE	<b>8</b> AARC Meeting 7:30 pm	<b>9</b> Lunch Old Country Buffet 11-1	<b>10</b> ARES Net 8:00 pm	<b>11</b>	<b>12</b> 6-m net 50,200 8am
<b>13</b>  ©KD4KWE	<b>14</b> INFO-NET 7:00 pm 220 Net 8:00 pm	<b>15</b>	<b>16</b> Lunch Old Country Buffet 11-1	<b>17</b> ARES Net 8:00 pm	<b>18</b>	<b>19</b> 6-m net 50,200 8am
<b>20</b>	<b>21</b> INFO-NET 7:00 pm 220 Net 8:00 pm  ©WA4QFL	<b>22</b>	<b>23</b> Lunch Old Country Buffet 11-1	<b>24</b> ARES Net 8:00 pm  ©KB4JNI ©AC4ZQ	<b>25</b>  ©KF4APO	<b>26</b> 6-m net 50,200 8am
<b>27</b>	<b>28</b> INFO-NET 7:00 pm 220 Net 8:00 pm	<b>29</b>  ©KF4APM ©N4MKW ©WB4RBW	<b>30</b> Lunch Old Country Buffet 11-1  ©KE4BVR	<b>31</b> ARES Net 8:00 pm  ©KE4RUZ	<b>© Congratulations to the October Birthday Hams</b>	

## R.A.C.E.S. Connector Standards

It's been a while since they were last published, so here again are the standards used for connectors on equipment used by R.A.C.E.S. members in the Albemarle area. (The drawings are by Gerry Crenshaw, WD4BIS.)



## ARRL Petitions FCC to Change Safety Rules

The ARRL has petitioned the FCC to reconsider and reverse portions of the Commission's August 1, 1996, Report and Order that imposed RF-emission safety standards on Amateur Radio, including a 50-W threshold to trigger an RF-safety evaluation. In setting the 50-W threshold, the ARRL said, the FCC failed to consider the effect of antenna height, antenna gain, emission mode, duty cycle or operating frequency.

The new rules, effective January 1, 1997, require licensees of amateur stations running 50 W output or more on any band to conduct a routine RF-safety evaluation to determine if the station could expose people to RF levels that exceed the MPE limits specified in the new rules. (Mobile installations using push-to-talk, regardless of power, are exempt from the environmental evaluation requirement.) In its

reconsideration filing, the League called the 50-W threshold "regulatory overkill" and "without scientific basis." Among other things, the League said the means to conduct RF radiation evaluations are not yet available, and the ability to reconfigure a station that might exceed the new limits "is highly problematic." Coupled with any state and local land-use and RF-exposure regulations that might exist, application of the new rules "may constitute a de facto revocation or modification of the station license," the League said.

According to the September 9, 1996, issue of Radio Communications Report, the ARRL was not the only one to challenge the RF exposure guidelines. Others filing petitions for reconsideration or clarification are the Personal Communications Industry Association, the Electromagnetic Energy Association, Hammett & Edison Inc (a consulting firm) and the US Department of Defense.

*(excerpted from the ARRL Letter, Sept. 13, 1996)*

**OFFICERS AND BOARD MEMBERS**

President	Pete Wildman	AD4TU
Vice-President	Greg Faust	N4PGS
Treasurer	Sharon Duvall	KO4OC
Secretary	Joe Fritz	KD4RWX
Directors:	Rick Berman	KO4WQ
	Mike Duvall	AC4ZQ
	Hein Hvatum	N4FWA
	Jessie Preston	KE4OID
	Ron Richey	K4RKA

**COMMITTEE LEADERS**

	<u>Committee Chairman</u>	<u>Director</u>
Technical	Mike Duvall AC4ZQ	Hein Hvatum N4FWA
Education	Harry Dannals W2HD	Rick Berman KO4WQ
Fundraising	Bob Pattison KM4DU	Sharon Duvall KO4OC
Activities	Hein Hvatum N4FWA	Rick Berman KO4WQ
Awards	Joe Fritz KD4RWX	n/a
Recycling	Mike Duvall AC4ZQ	Ron Richey K4RKA
Digital	Greg Faust N4PGS	Mike Duvall AC4ZQ
Publication	Joe Fritz KD4RWX	

**OTHER POSITIONS**

ARRL Liaison	Brian Fox	KE4HIA
ARES/RACES Coordinator	Hein Hvatum	N4FWA
ARRL VE Coordinator	John Gray	W6UZ
Trustee (WA4TFZ)	Morris Jones	NM4R
Newsletter Editors	Paul Dean	WB9HGZ
	Eileen Dean	WD9EIA

**CLUB MEETINGS**

Regular Meeting: Second Tuesday of each month at 7:30 PM  
 Board & Technical Meetings: First Tuesday of each month at 7:30 PM

Meetings are held at the National Radio Astronomy Observatory (NRAO) building, Edgemont Road (UVa area)

**WA4TFZ REPEATERS**

INPUT/OUTPUT	TONE ACCESS
146.160/146.760	88.5 (if enabled, DTMF 325* will produce temporary Tone off and 326* will turn Tone back on)
Door alarm OFF.....	DTMF 100*
Emergency Autopatch to access 911 Center.....	DTMF 911*
Emergency Autopatch to access VA 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	WA4TFZ Packet Bulletin Board

**NETS**

**Northern Piedmont Emergency Net**

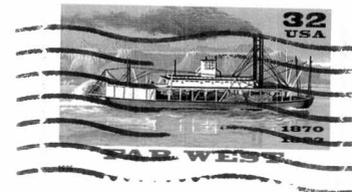
146.76 repeater Thursday 8:00 p.m.  
 Plus Swap/Trade & Technical Sessions  
 Net Control: Morris, NM4R

**Information Net**

146.76 repeater Monday 7:00 p.m.  
 Newsline program and general news  
 Net Control: Mark, N4TZE

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

**AARC BULLETIN  
 OCTOBER 1996**



CORRECTION OF LABEL INFORMATION REQUESTED ---TO CORRECT CALL PHONE 973-1738 Y D  
 KA4JJD N 1996 CURRENT MEMBER

Michael F. Rein  
 109 Sturbridge Rd.  
 Charlottesville VA 22901