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☞ ***Next Meeting:***  
***Tuesday, April 14***  
***7:30 PM***  
***NRAO Auditorium***  
***Edgemont Road***  
***(UVa area)***

**Dogwood Events April 25***Ernie Sardi, W2EIU*

The date is fast approaching for our second Dogwood Festival Parade. Last year was quite a learning experience for all of us that participated. Of course, this year will be no different but just as much fun.

The parade will take place Saturday, April 25th. We will have 3 vehicles in the parade and hopefully about 20 people. We will have a tape recording extolling our many virtues AND we will have handouts advertising both AARC and ham radio. We need at least 9 walkers for the handouts and to carry the banner. (We could use a few spare sets of legs should some people tire .)

We will also run a special event station from 0800 to 1800 hrs on 40, 20, 15 and 10 ( as well as VHF and UHF) We need as many operators as we can get to operate in 2 hour segments (or longer). Techs and Tech + licensees can also operate as long as a control operator is present. Ask one if you can visit and operate.

Remember - this is YOUR club and YOU are the club. Get involved and I guarantee you will have a blast. To volunteer, contact Ernie (W2EIU), Bill (KC4TQF) or Don (KA4MCA). Come--Participate--Enjoy!!!

*73 de Ernie-W2EIU***VE Test Session May 2***John Gray, W6UZ*

The AARC VE Group will hold a session at 9 AM on Saturday, May 2, 1998, in the Auditorium of NRAO on Edgemont Road, UVa Grounds. Advance registration is requested. To register send a new FORM 610, dated no earlier than September 1997, along with a list of the elements for which you wish to sit to John Gray, W6UZ, 110 Carrsbrook Court, Charlottesville, VA 22901. I can also be reached at 804/973-1094 or by e-mail "jdgray@rlc.net" for further information.

This 610 is a new one and previous versions are no longer valid. I have a supply of the new forms. If you wish a copy, send a self addressed, stamped business-size envelope to the above address.

Note to those of you working on your code speeds: I will probably use the "multiple guess" question pool for the code, since the theory is that format also.

*(See p. 5 for more information on the May test session.)*

# GREMLIN UPDATE

Mike Duvall, AC4ZQ

In the last newsletter, Joe summarized the discussions at the first technical committee, gremlin meeting. In this article I will give you a quick update of what has happened and explain how you can get more information.

Some of you may be thinking that we have eliminated the gremlin. I wish we could take credit. Unfortunately I think the storm got to him first. I expect that he will be back later this spring.

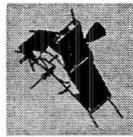
We have added new pages to the AARC web site with details of the technical committee's efforts. The new pages include notes on meetings, results of task assignments and reference material for those that want to roll up their sleeves and pitch in. I encourage everyone to check out the technical committee web pages.

The web pages also have the task assignments for those that attended the first meeting. We will have another meeting in the next couple weeks. I hope every one with an assignment has been busy. If you would like to participate please give me a phone call.

We have had a couple significant developments so far. While scanning around the 147.76 repeater's input frequency I found a pager could be heard around 146.255. This is less than 100kHz above our repeaters input frequency. The signal seemed strongest downtown but could be heard all the way out to the airport. I suspect that the signal is a spurious emission from a pager transmitter. This signal sounded a lot like our old gremlin. I encourage everyone, especially while mobile to monitor around 146.255. If you have a fixed station pass along beam headings if you can. Please forward you comments to the AARC email list. If you do not have email access then you can phone me directly and I will pass your comments on. This looks like a great target for a foxhunt. Hint! Hint!

I also discovered that the Delaware ARC has been having similar problems with their repeater. So far they have isolated the problem down to two 800 MHz pagers. For more details see the AARC technical committee pages, "Feedback on first meeting".

There are other developments but I am afraid that I don't have space for them in this short update. If you are interested please see the club's web site at [members.aol.com/wa4tfz/aarc](http://members.aol.com/wa4tfz/aarc). If you don't have web access give me a call and I can get you a paper copy of the relevant web pages.



## Notes from the V.P.

This month's column will be a short one. I was in Florida at the Orlando satellite integration facility for almost a week in March and I'm still digging out from the backlog. The Phase 3D satellite is progressing extremely well, after having been totally dismantled for structural improvements necessitated by the European Space Agency's (ESA's) revised launch load requirements for the Ariane 5. While there, I established the first RF command link with Phase 3D on 435 MHz and helped check out all of the transponders. The satellite is a work of art and a tremendous example of international cooperation. Most of my spare time since I've returned has been devoted to writing command and telemetry software for this satellite.

I'm very pleased to announce that the April meeting speaker will be Bob Ross, W2BR. Bob, as many of you know is an electronics engineer with the University and also runs a "freestanding" consulting company in the area involved in the design of a wide variety of instruments and "gadgets." When not busy doing these things (which is most of the time), Bob enjoys CW, QRP, and restoring old radios. This month he's going to talk about the "art" of boat anchor purchasing and restoration. Bob says he's going to cover such topics as how to pick an old radio at a hamfest, how to haggle on the price, and how to begin restoration once you've acquired your prize; things that often aren't covered and may be confusing to the newcomer.

Unfortunately, there's an excellent chance that I will have to be out of town during this meeting, back at the Orlando facility for some more work on the satellite (two in a row, sorry).

The May meeting speaker will be Dave Damon discussing field day preparations and activities for the June '98 field day.

-W4SM



### **DEADLINE for the May issue of AARC Bulletin is April 23**

Send your articles to Paul (WB9HGZ) or Eileen (WD9EIA) at: 4300 Sylvan Lane, Charlottesville, 22911 (U.S. mail), or at [wd9eia@newsguy.com](mailto:wd9eia@newsguy.com) (email). Packet operators, send via KE4UKX at the club bulletin board and he'll pass it along to us.



## ARE YOU A MEMBER?

Near the end of my presentation at the AARC meeting last month, the subject of the involvement of the American Radio Relay League (ARRL) in the representation of Amateur Radio was raised. My intent was to show that it was ARRL, that organization of 100 plus employees in Newington, CT, plus its Field Organization and its thousands of members which really guides the future of our hobby in this country and literally around the world.

The League is lots more than the magazine "QST" even though many Hams feel that their money just goes to a subscription. And, what is the difference if they subscribe to Brand "X" or Brand "Y?" Well, there is a world of difference! Your membership in the ARRL does indeed bring you "QST" every month, but that's really only a small beginning to what your membership "dues" really support. If you will take a little time and examine your issue of "QST", or, heaven forbid, someone else's issue, and then take a look at the many departments at League headquarters in Newington. you will see the vast organization which you have at your fingertips and, all of it working for you.

Let's first take a look at the cover of the April 1998 issue and its headlines: "QST compares: Dual-band H-Ts" and "Work meteor scatter with high-speed CW" and more. There is also a note about the "New Ham Companion: Practical information for all hams." Of course, inside there are many more articles of technical interest and human interest plus public service and contest information.

A listing of the Departments shows a number of fascinating items from "A" to "75, 50 and 25 Years Ago." In between these limits you will find Amateur Satellites, Coming Conventions, Hints and Kinks, How's DX, New Books, New Products, Public Service, Silent Keys, The World Above 50 MHz, the Washington Mailbox, and much, much more.

Let's stop and visit just one of those Departments... the Mailbox assigned to Washington (That's D.C., of course!) In this issue we find a discussion of "VHF/UHF and Repeaters: The Basics" which is a series of questions and answers relating to the repeaters used all over the country. Since almost all of the readers of the AARC

Newsletter are involved in using repeaters, there is a valuable bank of information here.

Quickly moving to a column entitled "DC Currents" you can quickly learn about legislative and public affairs matters. The writer spends most of his time in D.C. walking the legislative hallways.

With this brief description of values returned for your dues, you can easily see that there is far more than just the magazine you receive each month. Support ARRL and thereby SUPPORT HAM RADIO! BCNU and 73...

/s/ Harry, W2HD

## AMATEUR RADIO: THE CHALLENGES IT FACES TODAY

*An outline of a presentation given by Harry Dannals (W2HD) at the Albemarle Amateur Radio Club meeting on March 10, 1998.*

### From the World

- International Conferences (ITU)
- Our Representation (IARU)
- HF - Reasonably Secure - Might Expand
- Satellites and Their Frequency Needs
- Point-to-Point Communications
- International Shortwave (40 Meters)
- Newly-emerging Nations and Their Needs

### From Our Own Country

- Washington Law Makers (Dollar Signs)
- Possible Further Downgrading of FCC
- Auction of Frequencies (Do We Have Dollars?)
- Lack of Knowledge by Government (Even FCC)
- Pressure from Commercial Interests
- Part 15 Rules

### From Our Own Communities

- Restrictive Covenants
- Protection via Prb-1

### From Ourselves

- Internal Battles Brought to the FCC
- Frequency Coordination
  - HF Bulletin Stations (W5YI, etc)
- Our "Gloom and Tomb" Gang
  - Gives Poor Example to Government
  - Not Really the Full Story

### What Can We Do?

- Operate as Ladies and Gentlemen
  - (Rather than Little Girls and Boys!)
- Provide Public Service at Every Opportunity
- Continue Growth Trend
  - Bring Others into the Fold
  - "Elmer Principle" Must Be Employed
  - Tell Our Own Story - Long, Loud and Often

# AARC WEBPAGES ARE NOW AVAILABLE!

The AARC Web Pages can now be accessed at the following URL.

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

Joe Fritz (KD4RWX), web page developer, and Nancy Holliday (KF4MEF), web page consultant, are pleased to invite individuals to visit the web pages they have developed to serve the Albemarle Amateur Radio Club. The pages are currently located on web space allocated to Joe on his AOL account.

The pages have been announced prior to their complete development in order to return our (AARC) presence to the World Wide Web. Therefore, it is important for visitors to the web pages to understand that many changes to the appearance and content of the web pages should be expected as the structure is adjusted.

Special thanks go to Sam Gentry (N4WJQ) for his initial development of a web page for the AARC. Sam provided Joe with his web page computer file for assisting in the transition to the AARC's development responsibility. The current web pages have gone far beyond the original structure. Much more material is provided for visitors. Some of the original material has been retained directly. Some other material has been used in a modified form. Thanks again, Sam.

The content of web pages will be updated when possible. Information and picture contributions will be accepted and used, if appropriate. If you have a web page which you would like to have linked to the AARC web page, just send Joe an email message with the URL. He will evaluate it and set up the link, if accepted. We are primarily interested in Homepages which are Ham radio related.

In many cases, we cannot do everything. We would like to encourage those individuals, or groups, within AARC to develop a webpage and let us link to it.

Currently, Mike Duvall (AC4ZQ) has such a web page concerning the Technical Committee's attack on the "Gremlin." Check it out. If your committee, or if you as an individual, has information to contribute, let Joe know.

While you are visiting the AARC web pages, you can select from several outside links to find more information related to Amateur Radio. Several callbooks (domestic and foreign) are linked. A DX site which has many associated links is available. ARRL and TAPR are linked. One link has more than twenty search engines available. (You might want to Bookmark that one.) Others will be added at a later time.

So, come visit the AARC web pages. When you do, send a message if you find it of value to you. Do the same if there are things which can be added to make it more valuable to you.

Now a "special treat" for AARC members, only. On or before April 6th, (Joe's birthday - see calendar), he will have a page containing a picture of him at a more youthful age (thank goodness). It will be accessible from some place on one of the web pages. The first person to find it and send him an email to [wa4tfz@aol.com](mailto:wa4tfz@aol.com) will be treated to a milkshake at Wendy's. A picture of a QSL card from Gibraltar will also be hidden. The gift and notification instructions will be found near the QSL card. The first to find the card and notify him at [wa4tfz@aol.com](mailto:wa4tfz@aol.com) gets the gift.

Come Visit. Have fun.

Joe Fritz, kd4rwx  
WA4TFZ Webmaster

## OTHER WEBSITES OF INTEREST:

<http://www.qrz.com>

<http://www.aresva.org>

<http://www.arrl.org>

<http://www.fcc.gov>

<http://wwwcom.acs.nsu.edu/HamRadio/News.html>

<http://www.teleport.com/~qcwa/index.html>

<http://www.ualr.edu/~hamradio/index.html>

<http://www.tapr.org>

<http://www/m9nvv.qrp.com/~fists/>

# VE Test Session - Details

For those of you planning to try for a new license or for an upgrade in license class, here's some further information from volunteer examiner coordinator John Gray, W6UZ.

## HOW TO REGISTER

To register for the test session on May 2, send the following items to John, W6UZ:

1. A completed FCC Form 610 (new version)
2. A list of examination elements you desire to take
3. A check for \$ 6.25 made out to AARC VE Session
4. Photocopies of your current license and relevant CSCE's, if presently held
5. For written confirmation of your proper registration please enclose a stamped self addressed envelope

Registration materials should reach the VE team on or prior to April 29, 1998. **SPECIAL NOTICE:** ANY candidate requiring special accommodation because of handicap or disability should contact W6UZ well in advance of the examination in order to discuss the arrangements necessary.

## ON EXAMINATION DAY

Bring the following with you to the exam session:

1. Your **current original** Amateur Radio License, if any
2. Original of CSCE's for element credit you wish to claim
3. At least one pencil (#2 lead) and suitable eraser
4. An ink pen
5. Two forms of positive identification (in addition to your original license) from this list:
  - A photo ID plus one of the following, OR two of the following:
  - non-photo drivers license or other ID card (school or employer)
  - Birth certificate with appropriate seal
  - Passport
  - any business or personal correspondence addressed to you



Any questions? Contact John, W6UZ, at 973-0194.

# AARC 1998 PUBLIC SERVICE ACTIVITIES

Public Service Activities co-ordinator Greg Faust wants YOU to sign up for this month's Public Service events. Contact either Greg or Hein, N4FWA, on the 146.76 repeater, on the Net or by phone to sign up. Greg can be reached at 978-1962 or by email at: n4pgs@mail.com. Hein's number is 977-4438, and his email address is: hhvatum@nrao.edu.

DATE	DAY	DESCRIPTION	LOCATION	TIME	TYPE
April 19	Sun	MS Walk	Charlottesville HS	2:00 PM	Walk
April 25	Sat	UVa Race #1	Scott Stadium	7:30 AM	Bike Race (Criterion)
April 25	Sat	UVa Race #2	Orange High School	2:30 PM	Bike Race (Time Trials)
April 26	Sun	UVa Race #3	Walnut Creek Park	1:00 PM	Bike Race (Road Race)
June 6&7	Sat/Sun	MS 150	PVCC	6:00 AM	Bike Tour
August 8	Sat	James Madison Stage Race #1	Orange High School	8:30 AM	Bike Race (Road Race)
August 9	Sun	James Madison Stage Race #2	Stanardsville	7:30 AM	Bike Race (Hill Climb)
August 9	Sun	James Madison Stage Race #3	Downtown Orange	1:00 PM	Bike Race (Criterion)

TAPR, which simply stands for the Tucson Amateur Packet Radio Corporation, was founded in 1982 as a national organization with interests in the areas of amateur radio, packet, and digital communications. Today, TAPR continues as a membership supported non-profit amateur research and development organization with more than 2500 members in the US and overseas. Don't let the 'Tucson' in the name fool you into thinking that this is just a regional or local organization. More than 25% of TAPR's membership is international and TAPR has members in every state of the US.

TAPR has been working towards several goals since its inception, which include: to support research and development efforts in the area of amateur digital communications, to disseminate information on packet and digital communications, to provide affordable and useful kits for experimenters and hobbyists, to pursue and help to advance the amateur art of communications, and to support publications, meetings, and standards.

### History

If you have used a packet radio TNC, then you are already a part of TAPR history. TAPR started with the TNC (Terminal Node Controller) project, which grew from a discussion in October of 1981 at a meeting of the Tucson Chapter of the IEEE Computer Society. A week later, six of the attendees gathered and discussed the feasibility of developing a Terminal Node Controller that would be complete and available to amateurs at a modest cost. On June 26th 1982, Lyle Johnson, WA7GXD, and Den Connors, KD2S, initiated a packet contact with the first TAPR unit. The project progressed from these first prototype units to the TNC-1 and then finally to the TNC-2 which is now the basis for most amateur packet operations worldwide. This was the genesis of TAPR.

### Projects over the Years

TAPR has a long history of developing kits for the amateur radio digital community. These include such notables as the TNC, 9600bps modem, TAPR/AMSAT DSP-93, and others. Table 1 gives an overview of the major projects executed by TAPR over the years. As you can see, TAPR has been able to make a new kit, software package, or publication available almost every year of its existence. Considering the unique volunteer aspects of the projects, this is a significant accomplishment. From the beginning, TAPR has produced several different kits.

Since 1994, TAPR has begun to do more with publications and software to fulfill its commitment to education and information dissemination. (See *Table of Publications on p. 7*)

### Packet Status Register

Many of these new kits and developments have been discussed in the TAPR PSR (Packet Status Register). Published quarterly by TAPR since 1982, the PSR is the membership journal and features both technical and non-technical articles. The PSR is recognized as an authoritative source for up-to-date user and technical information on digital issues. Much of the material in PSR is timeless. Back issue volumes have been published since 1990.

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## Other Voices in Ham Radio:

### TAPR - Tucson Amateur Packet Radio Corp

by Greg Jones, WD5IVD

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### What is TAPR about on Spread Spectrum ?

TAPR is actively working on Spread Spectrum education, research, and development in addition to other efforts (<http://www.tapr.org/ss>). Recently, TAPR has published a position statement on Spread Spectrum, with the following as a main point:

TAPR believes that the technical facts support our conviction that conventional and spread spectrum systems can coexist without detriment to conventional systems on all frequencies from MF to EHF. To this end, TAPR will begin to research spread spectrum systems that will develop technology for future deployment.

Based on this premise, the organization is focusing on spread spectrum technology since it holds several exciting possibilities for the future of amateur radio operations. TAPR received a STA on Spread Spectrum in November, 1996, in order to begin a series of projects using SS communications. Much more information will be published in future issues of the PSR, as well as in the TAPR web pages.

### Meetings

In past years, TAPR only held one Annual Membership Meeting a year in Tucson. In 1994, TAPR began to hold two gatherings each year. In the spring, TAPR holds meetings and a banquet at the Dayto Hamvention. The Friday TAPR Banquet is well attended and has allowed banquet speakers like (*see TAPR, p. 7*)

## TAPR

(from p. 6) Phil Karn, KA9Q, Dewayne Hendricks, WA8DZP, Bob Bruninga, WB4APR and others to present talks on exciting new technical topics. 1995 marked the first year of the joint ARRL and TAPR Digital Communications Conference, which was a merging of the TAPR Annual Membership Meeting and the ARRL Digital Communications Conference. By doing this, TAPR and the ARRL have a much stronger technical conference and it allows the meeting to reach more regional digital enthusiasts by being co-hosted in a different city each year. The ARRL and TAPR Digital Communications Conference is an exciting conference to attend if you are interested in the various aspects of digital communications.

(<http://www.tapr.org/tapr/html/dccconf.html>)

### More Information and Membership

The first place to look for details about TAPR is on our web page at <http://www.tapr.org/> You'll find all sorts of interesting stuff, including kits, special group purchases, CD-ROMs, software, meeting information, SIGs (special interest groups), audio from presentations, and much more. If you don't have Internet access, you can always write or call TAPR to get information sent to you.

If you would like to join TAPR, annual membership for US/Canada/Mexico is \$20, and outside North America, it is \$25 a year. Membership includes a subscription to the TAPR Packet Status Register quarterly newsletter and a 10% discount on kits and publications.

For more information about TAPR, visit our Web site <http://www.tapr.org>; e-mail: [tapr@tapr.org](mailto:tapr@tapr.org), Office: 940-383-0000, Fax: 940-566-2544

(Reprinted by permission of Greg Jones, WD5IVD)

## Bits & Pieces

**New Email Address** - here's another change for your club directory. John Gray's new email address is "jdgray@rlc.net" instead of the now-defunct comet.net.

**Greet the New Members** - listen for Bill Rupp (W4KSH) and Ellen Bennett (N1BTE)

### TABLE OF PUBLICATIONS:

Hallmark Kits, Software, and Publications listed by Year

- 1982 - TAPR TNC-1
- 1985 - TAPR TNC-2
- 1985 - 9600bps TAPR modem (K9NG)
- 1986 - Network Node Controller
- 1987 - PSK Modem
- 1987 - TAPR Software Library Begun
- 1988 - TAPR/AMSAT DSP-1 (alpha and beta only)
- 1989 - Data Carrier Detect Modifications
- 1989 - PK-232 Modem Disconnect Upgrade
- 1989 - TAPR packetRadio (1200/9600baud radio - not completed)
- 1991 - MetCon (Telemetry and Control)
- 1992 - TAPR/JAMSAT TrakBox
- 1992 - 9600bps Modem w/ Bit-Regenerator Option
- 1993 - Deviation Meter
- 1994 - PSR Volume 1 - 2 - and 3 (publication)
- 1994 - TAPR/AMSAT DSP-93
- 1995 - DSP-93 Windows and Macintosh Development Environments (software)
- 1995 - Packet Radio: What? Why? How? (publication)
- 1995 - BBS Sysop Guide (publication)
- 1996 - DAS (DTMF Accessory Squelch)
- 1996 - Wireless Digital Communications: Design and Theory (publication)
- 1997 - TAPR APRS MicEncoder
- 1997 - Totally Accurate Clock (TAC-2)
- 1997 - 9600baud Land Mobile Modifications Manual (publication)
- 1997 - TAPR CD-ROM (publication)
- 1997 - GPS OEM modules
- 1998 - DGPS Reference Station
- 1998 - PSR Volume 4 (publication)

**New Upgrades** - we're exercising a little editorial privilege here to brag on our "harmonics" Mike (KE4UKX) and his twin Matt (KE4UKY), who both passed the theory portion of the Extra exam at the Greater Baltimore Hamfest on March 29. Having already passed the code portion of the Extra test back in August, they're now "temporary AE's" while the FCC processes the paperwork. Pretty good for 13-year-olds, even if we do say so ourselves! -Paul (WB9HGZ) & Eileen (WD9EIA)

# CLUB BUSINESS



**AARC Board Meeting**      **Date: March 3, 1998**

Meeting Canceled

**AARC Regular Meeting Minutes**      **Date: Mar. 10, 1998**

February Minutes were approved.

New Members: Bill Rupp (W4KSH); Ellen Bennett (N1BTE)

Bill (KC4TQF) discussed the Amateur Radio activity at the Virginia Discovery Museum which he participated in over the past weekend. He was assisted via radio by Harry (W2HD) and Ann (W0ANN).

Joe (KD4RWX) announced the activation of the AARC Web Site. This had previously existed as a Web Page which Sam (N4WJQ) had developed more than a year before. Sam had indicated that he was going to take his system down due to provider change. He encouraged the Club to take it over by providing his web files for our use. The web page was assigned to the Publication Committee. Joe has now completed the initial phase of development. The Universal Resource Locator (URL) address is as follows:

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

The address is being furnished, without cost to the Club, by Joe (KD4RWX). Nancy Holliday (KF4MEF) is providing assistance in the Web Page project. Visitors are encouraged to report their comments to Joe at [wa4tfz@aol.com](mailto:wa4tfz@aol.com).

Greg (N4PGS) reported that the recent bike race was a success. It was conducted in the rain. He called for those wishing to participate to sign up on the sheet being passed around. (NOTE: Future Public Service events are reported in the newsletter and on the AARC Web Pages.)

Ernie (W2EIU) reported that the Club would be participating in the Dogwood Parade on April 25th. There will be three vehicles in the parade and handouts will be distributed along the parade route. If you wish to participate, see Ernie. Planning meetings are scheduled.

The program for this meeting was presented by Harry Dannals (W2HD). (See p. 3 for an outline of Harry's talk.)

The meeting was adjourned and the attendees enjoyed some refreshments.

*Submitted by Joseph D. Fritz, KD4RWX, Secretary, AARC*

# AARC TREASURER'S REPORT MARCH 1998

## INCOME

Donations	
Cash	10.00
Packet	10.00
Sprint	250.00
Repeater	15.00
Surplus	<u>345.00</u>
Total Donations	630.00
Dues	1698.00
Hamfest sales	27.00
Textbooks	<u>14.25</u>
<b>TOTAL INCOME</b>	<b>2369.25</b>

## EXPENSES

Refreshments	40.00
Parts & Equip	45.43
Recreation(picnic)	50.00
Telephone	<u>118.32</u>
<b>TOTAL EXPENSES</b>	<b>253.75</b>
<b>TOTAL INCOME/EXPENSE</b>	<b>2115.50</b>
<b>BALANCE FORWARD</b>	<b>2042.30</b>
<b>OVERALL TOTAL</b>	<b>4157.80</b>

--Sharon Duval, KO4OC, AARC Treasurer

## CLASSIFIED COLUMN



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

**FOR SALE:** 220 MHz AMP & ANTENNA (1/29/98) Don, KE4DDR, wants to sell a Mirage C22A 220 MHz amplifier. 2 watts in gives 20 watts out. He also has a Cushcraft AR220 Ringo Ranger 220 MHz antenna for sale. If you are interested in these items, call him at 804-978-1549.

**WANTED:** FREQUENCY COUNTER (2/26/98) Bob, W4BGU, is looking for a frequency counter, 30 MHz Ok, even less considered. Call him at 286-2971 or contact Ron, K4RKA at 973-3640.

**FOR SALE:** HALICRAFTERS HT37 (2/26/98) Clay, W4LNT, has Halicrafters HT37 transmitter SSB/CW 100 watts from 2x6146b final tubes. Working. If interested call him at 804 589-4865.

**FOR SALE:** FT101EE HF TRANSCEIVER (3/12/98) Clan, W4LNT, wants to sell a Yaesu FT101EE 160-10 meter transceiver. If you are interested, call him at 804 589-4865.

**FOR SALE!** Oak Hills Research Sprint II CW transceiver, with built-in Curtis chip keyer and a Brown Brothers paddle. Complete with manual and cable for 12-volt connection using the standard clu. connector. 2 Watts output. Asking \$100. For more info, call Joe, W2PVY, at 804/589-1495 or E-Mail: [joegio@delphi.com](mailto:joegio@delphi.com).

## AREA HAMFESTS

**April 4** SMART Fest, Goochland, VA.  
 Contact: Buddy Travis, KA4NNN, 540/894-0406,  
 email: btravis@mnsinc.com

**April 5** RARSFest98 - ARRL State Convention, Hamfest and Computer Fair, Raleigh, NC.  
 Contact: Raleigh Amateur Radio Society, P.O. Box 17124, Raleigh, NC 27619.

*More Details, courtesy KD4RWX:* RARSFest is held in the Jim Graham Building on the NC State Fairgrounds, from 8:00 AM to 4:00 PM. Tickets are \$5 pre-registration/ \$6 at door, with free parking. Talk-In: 146.64 or 147.15

**June 7** Ole Virginia Hams ARC, Manassas, VA  
 Contact: Mary Lu Blasdel, KB4EFP, 9727 Loudon Ave., Manassas, VA 20109; 703-369-2877

## AMATEUR RADIO EXAM DATES FOR VIRGINIA

(sites within 100 miles of Charlottesville)

- 04/04/98** (W5YT) Chester. Anthony Amato 804-717-5237
- 04/11/98** (ARRL) Harrisonburg. Buck Mowbray N3RIQ 540-289-9790
- 04/12/98** (ARRL) Bedford. Judy Friel AC4RG 540-297-5351
- 04/18/98** (ARRL) Fredricksburg. Carolyn Cavanagh AC4SK 540-373-7076
- 04/26/98** (ARRL) Lynchburg. Charles L Beard AD4ST 804-832-7651
- 05/02/98** (ARRL) CHARLOTTESVILLE. John Gray, W6UZ, 804/973-1094

*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.*

<b>APRIL 1998</b>						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<i>©Congratulations to the April Birthday hams!</i>			<b>1</b> Lunch (11-1) Old Country Buffet	<b>2</b> ARES Net 8:00PM	<b>3</b>	<b>4</b> 6-mNet 8AM 50.200
<b>5</b>  ©WA4MHP	<b>6</b> INFONET 7PM 220 Net 8:00 PM YOUTHNET 8:30PM YL Net 8:30 ©KD4RWX	<b>7</b> Board & Technical Meeting 7:30 PM  ©KF4AGT	<b>8</b> Lunch (11-1) Old Country Buffet  ©KE4BRH	<b>9</b> ARES Net 8:00PM	<b>10</b>  ©W2PVY	<b>11</b> 6-mNet 8AM 50.200  ©D. PRESTON
<b>12</b>    <i>Happy Easter</i>	<b>13</b> INFO-NET 7 PM 220 Net 8:00 PM YOUTHNET 8:30PM YL NET 8:30 ©KB4MUF	<b>14</b> AARC Meeting 7:30 PM	<b>15</b> Lunch (11-1) Old Country Buffet  ©W2HD ©AD4YM	<b>16</b> ARES Net 8:00PM	<b>17</b>  ©N4FWA	<b>18</b> 6-mNet 8AM 50.200
<b>19</b>  MS Walk	<b>20</b> INFO-NET 7 PM 220 Net 8:00 PM YOUTHNET 8:30PM YL NET 8:30PM	<b>21</b>	<b>22</b> Lunch (11-1) Old Country Buffet	<b>23</b> ARES Net 8:00PM	<b>24</b>	<b>25</b> 6-mNet 8AM 50.200 UVa Race #1 & 2 Dogwood Parade
<b>26</b>  UVa Race #3	<b>27</b> INFONET 7PM 220 Net 8:00 PM YOUTHNET 8:30PM YL Net 8:30	<b>28</b>	<b>29</b> Lunch (11-1) Old Country Buffet  ©KB4DJN	<b>30</b> ARES Net 8:00PM  ©W3WAC	<b>☛Don't Forget--Testing May 2!</b>	

