

Editor: Joseph D. Fritz, KD4RWX

CHARLOTTESVILLE (Albemarle County) VIRGINIA

**MAY CLUB MEETING**

TUESDAY May 9, 1995 7:30 PM

**Topic: Frequency Deviation on Handy-Talkies**

Equipment will be checked

**Speaker: Bud (KB4JNI)**

National Radio Astronomy Observatory Auditorium On the Grounds of the University of Virginia

**ARK 40**

by Mike Dean, KE4UKX  
(age 10)

My brothers and I built a radio called Ark 40, from a kit we bought from S&S Engineering. My brothers are J.L., KE4UKZ, and Matt, KE4UKY. Our dad, WB9HGZ, helped us follow the directions and do the hard parts.

The Ark 40 is a small radio with about 5 watts transmit power, which it gets from a battery. The battery is heavier than the radio! The Ark 40 transmits on 40 meters and uses CW (Morse Code).

We had to solder the componets in. It got out! Soldering the parts in was fun. The hardest part we had to do was solder the wires that went to the controls. Every so often we had to wipe the tip of the soldering iron (actually it looks more like a pencil) on a wet sponge that was on the base of the iron holster. I think the best part was putting in the speaker and putting in the frequency counter.

Dad tuned it for us, too. Tuning the Ark 40 took a while because we had to get a whole bunch of equipment so it was tuned right.

We built the Ark 40 to take on backpacking trips with our Boy Scout troop to see if we can make any contacts out in the woods. We haven't been able to try it out on a camping trip yet, but we've made some contacts from our house so we know it works.

The farthest I contacted with the Ark 40 was a ham station in Waseca, Minnesota. It's a pretty good radio!

**AARC BULLETIN**

MAY 1995

**CONTENTS**

May Meeting Notice.....	1
ARK 40.....	1
The President Speaks.....	1
Alex is Here.....	1
Veep's Corner.....	2
Field Day 95.....	2
Field Day - Any Value.....	2
Over The Hill.....	3
Public Service Schedule.....	3
<b>BITS AND PIECES</b> .....	3
Virginia VE Exam Info.....	4
Ch'ville VE Session.....	4
Club Business.....	4
Treasurer's Report.....	5
Calendar.....	5
What'Up?.....	6
HAM.....	6
SALE & WANT Items.....	7
Barbecue.....	7
General Information.....	cover

**COMING EVENTS**

DIRECTORY..... MAY or JUNE

**FIELD DAY**  
**JUNE 24-25**

**THE PRESIDENT SPEAKS**

Make plans to come to the Radio Club Open House on May 18, 1995. It will be held in the banquet room at the Bonanza Restaurant on Rio Road starting at 6:30 P.M. and going till 8:00 P.M. There will be coffee and cinnamon rolls as an after dinner snack. If you would like to come earlier for dinner, tell the cashier that you are with the Albemarle Amateur Radio Club and you will get a 10% discount, then head to the back of the restaurant where the banquet room is. Why are we having an Open House? To kick off our new display case and to have a club social.

We have just finished the display case that will show the accomplishments that the AARC has made to Ham Radio and to the community. This will be a dynamic display; it will be changing from time to time. Stop by once a quarter and check it out. Many thanks to the hours that were put into making, setting in place, and arranging this display case.

The parents of the 925 repeater have just hooked-up the antenna that clears the top of the building of the Martha Jefferson Hospital. There should be better coverage to the North of town now. Is there? If so give one of the 925 parents a call and let them know.

The evening of April 19 and most of the day of April 20, the 76 repeater was turned off for repair. A solder joint that connects the tuning slug to the adjustment rod gave way and the tuning slug slid down into the cavity. The VSWR was running about 5:1 between the transmitter and the first cavity. A little machine shop work and the 76 repeater was back on the air.

It was interesting to see how much more activity there was on the 925 repeater while the 76 repeater was down. It was also interesting to note the distance that the 925 repeater covers. I would like to see more activity on the 925 repeater. This will allow you to become familiar with its coverage area and any coverage quirks that it may have. (Good information in an emergency or if we have a public service net in operation) I would be interested in any ideas that may encourage people to use the 925 repeater more, other than turning the 76 repeater off.

73, LeRoy - WA4MHP

**ALEX IS HERE!**

The Sutter family wishes to introduce  
**Alexander Marshall Sutter**  
born on April 15, 1995 at 4:55 A.M.  
7 lbs. 10 oz. - 22 1/4 inches

LeRoy (WA4MHP) says he is a great kid. His Mom (Jan-KE4NNT) is doing great. His big brother, Jonathan, has a big smile on his face. Alex made his first Ham Luncheon at Bonanza on April 26th.

## VEEP'S CORNER

Another month, another column. A grey, dreary day out, the day after the regular club meeting, and a very interesting meeting it was. Ernie, W2EIU, gave us an overview of CPR with a mannequin for a demo and it looks like the kind of thing that would be good to be trained in, considering all of the public service events we do. Actually, it would be a good skill to have, public service events or not. If we can get enough people interested in taking the course for certification Ernie thinks that the Red Cross might even give it at NRAO for us, if NRAO is available. Please let either Ernie or me know if you are interested and we can see about setting it up. It will take about eight hours of training and I think would be well worth the time.

A suggestion was made last night about the annual picnic at McIntire Park in September, and that was to have the picnic catered by Big Jim of barbecue fame. After checking with our Treasurer, we find that this is an economically feasible idea and we would like to get your input on this, too. Please let Sharon (KO4OC), Ron (K4RKA), Nancy (WB4RBW), or me, Rick (KO4WQ) know of your thoughts on this idea, either by mail, phone, WA4TFZ PBBS, or at Bonanza on Wednesdays.

Next months' meeting will feature Bud (KB4JNI) talking about frequency deviation on handy-talkies, and he will bring in equipment to check the frequency accuracy of your rigs. So bring your 2 meter rigs with you to the May meeting and have Bud check them out for you. We have had this program in the past and it has been interesting and popular, and Bud really knows this subject.

That's about it for this month.

Rick.(KO4WQ)

## Field Day 1995

Mark your calendars, make your plans; Field Day is June 24 & 25 and you are invited. Our goal is to have a good time and give everyone who would like to operate or log a chance to do so.

This year the AARC will operate Field Day from the Earlysville Volunteer Fire Station. The station is on Route 660 about a mile west of the intersection of 660 and 743 in Earlysville. There will be three operating positions (Phone, CW and Novice/Tech). We will also have an information booth.

Your Field Day Committee has already had several organizational meetings and plans are coming together nicely. Brian (KE4HIA) has volunteered to be the Captain of the CW station, and Bill (KE4KJB) will serve as the Captain for the Novice/Tech station. We still need someone to serve as the Phone station Captain. Station Captains are responsible for coordinating equipment for their individual stations and scheduling operating teams. We want two people at each station at all times. One to operate, the other to log.

Ernie (W2EIU) has volunteered to Chair the Publicity Committee and our illustrious President LeRoy (WA4MHP) has agreed to assist in this work. Bob (WA2MFI) is coordinating our QRP effort for Field Day. We are looking for laptop computers to log, equipment for the stations and we are hoping to offer some additional antennas for use at the CW and Phone positions.

Field Day is a tremendous amount of fun. If you have never operated this event you don't know what you are missing. Plan to come. Once you operate Field Day with the AARC you won't want to miss another

one. Of course the formal goal is to prepare all of us for emergency operations, but there are other benefits too! Who knows, you might learn something new, get to operate a band or a mode that you may not generally use or just have a good time in general. Field Day 1995 make it part of your plans.

If you have questions, want more information or just want to volunteer send me a packet KM4DU@WA4TFZ, call me on 146.76, 224.76, or give me a call at home at 985-7515.

Bob (KM4DU)

## Field Day - Any Value?

Recently there appeared on the local Packet BBS a message entitled, "What is Field Day?" The author then proceeds to tell us about several points he considers exceptionally negative about this activity many of us enjoy.

He asks if Field Day is just a contest for obtaining points and getting QST recognition. The answer is probably a little yes for some and a little no for others. There is a listing in QST and many are anxious to see how they have performed relative to other stations participating. Is that a negative? Is a contest a big negative, too? Sometimes competition is the incentive to have a group of hams get together to accomplish something jointly. Some will see this as a negative point. I don't agree.

The author of this message also asks if Field Day is merely free publicity for the ARRL since bonus points are awarded. Taking a look at many Field Day publicity releases, there is little, if any, mention of the League. The publicity is usually a way for the local club or group to make its presence known and publicize Amateur Radio for our friends and neighbors to see. This surely appears to me to be something for the good of Amateur Radio!

The author goes on to ask if Field Day is a practice in EMERGENCY preparedness. He says that the months of planning and organizing actually defeats the purpose. However, is that true? Don't we prepare for emergencies by practicing? Aren't our Public Service events a form of preparing to meet emergencies by knowing how to communicate in a network?

Along with other comments about interference on the bands during Field Day weekend (What about all the other "contests?"), our author makes the grand and glorious statement: "I, currently, see FD as nothing more than an ARRL sanctioned weekend jammathon with a free-for-all and careless spirit." He finally states that this is his opinion and asks for responses.

Well, it is not my intent to respond because he probably couldn't care less what I think... or you, either! However, let's just take a look at one very important point which is entirely overlooked by the author. Field Day is probably the only activity where club members and others get together and work together for a common endeavor in Amateur Radio. Isn't that something of real importance? Isn't it nice to see the doctors, lawyers and the Indian chiefs out there raising antennas and checking out gear to be certain that everything works OK? Isn't it great seeing the newest Ham working with the grizzly old Extra Class in running the cables and pounding the stakes?

Perhaps that's what Field Day is really all about! Enjoy.

Harry (W2HL)

**OVER THE HILL**

Hello fellow radio-type people. With keyboard in hand, I submit my next column for your perusal. The AARC Novice Technician classes are winding down. There are only 2 more weeks left as of this writing. By the time you read this, the class may, in fact, be over. First let me say that its been GREAT being back in the saddle again, and I've had a lot of fun working with Brian, Alby, and, of course Bob. Thanks for letting me jump back in. I would like to take this opportunity to ask any of you interested in teaching these classes to PLEASE get i touch with Bob (WA2MFI). We have a nice group of instructors, but there is ALWAYS room for more, and I'll be tied up over here for the next couple of years with the VARA classes. It's easy, its fun, and I don't think that there's a more rewarding aspect of Amateur Radio than helping someone else join us. Ok, nuff of that. As of this writing, the AARCT-Hunt is still a week away, which means that by the time you read this it will be a thing of the past. The next VARAHunt will be on May 21st. Starting time will be 1330 local, but expect a different check-in repeater freq and a different location in the county. It should be fun. And speaking of T-Hunts (nice segway, huh?), COMING IN NOVEMBER -THE 1ST ANNUAL JOINT VARA/AARC TURKEY HUNT. All I'll tell you right now is that if you have ANY desire to participate in T-Hunts, start honing your abilities, cause we've got a really WILD time in store for you. I will tell you that you MUST REGISTER IN ADVANCE for this Hunt! (I don't want to be responsible for anyone getting lost in the county and never being found again).

You are all aware that the VARA's first Novice Tech calss begins in just a few weeks, so PLEASE get the word out. If you know ANYONE interested in a summer class, let them know about it. Its easy to get to and I'll be glad to give any directions necessary. My voice mail is on line and just have any prospective students call (703) 337-5179. When the message starts, press #1 for class info or #3 for pre-registration. For you T-Hunters, #2 gets you the next 2 T-Hunt Dates and #4 allows you to register for the 1ST ANNUAL JOINT VARA/AARC TURKEY HUNT). I'd also like to say congratulations to Trevor (KE4WLL) and Dave (KE4YLR) for passing the test and getting their tickets already. Both are members of our current class. And, finally, on a sadder note, I would like to express my sincere condolences to the Alby (AD4KZ) and the entire McCutcheon family. I attended the VARA meeting this past week and found out that Alby's brother had passed on. You may remember that Alby is helping us teach our current Nov/Tech class. That's about it for now. I hope that EVERYONE had a Happy Easter, and that lots of food was eaten, and that lots of Easter Eggs were found by bright smiling faces who then proceeded to eat the chocolate Easter Bunnies and ruined their appetites, but most of all I hope we remember what Easter is all about, and why it is such a great holiday.

Till next time....**Bill, KC4TQF**

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***BITS AND PIECES***

**INTERNET ADDRESSES FOR DIRECTORY**

If you would like to have your Internet address included in the next Directory, then please send me a brief message via my address

**fritz@pen.k12.va.us**

Please repeat your address in the body of the message so that there will be no question about the correctness. I will return a message indicating that your message was received. The addresses will be included in the Directory, if at all possible. **Joe (KD4RWX)**

**PUBLIC SERVICE EVENTS 1995  
CONTACT HEIN (N4FWA) TO SIGN UP FOR  
EVENTS**

- DIM1 Sunday 30 April, 1200 EDT Walk America** (March of Dimes) walk in Charlottesville.
- MJS1 Thursday 11 (or 25) May, 2000 - 2100 EDT Evacuation drill at Martha Jefferson HOUSE** (not the hospital), 1600 Gordon Avenue. Residents will be evacuated by bus to a temporary shelter at the Armory on Avon Street.
- BKR3 Sunday 04 June, 0800 EDT Bike Race**. Start and finish at Walton Middle School.
- MSB1 Saturday 10 June Multiple Sclerosis Bike Tour, first day**. Start at Piedmont Community College. Overnight at Longwood College, Farmville.
- MSB2 Sunday 11 June Multiple Sclerosis Bike Tour, second day**. Start at Longwood College, Farmville. Finish at Stonewall Vineyards near Concord.
- BKR4 Sunday 18 June, 0800 EDT Bike Race**. Start at Walton Middle School. Finish at Walnut Creek Park.
- MSB3 September (date not set yet) Multiple Sclerosis Harvest Tour (bike)**. Albemarle County. Start and finish at Broadus Wood School near Earlysville.
- DRL1 Thursday 21 September, (probably around 1800 EDT) Albemarle/Charlottesville/UVA disaster drill**. Scenario will be earthquake and train derailment.
- DIA1 Sunday 01 October, 1000 EDT American Diabetes Association Walk** in Charlottesville.
- HRT1 Sunday 08 October American Heart Association Walk** in Charlottesville.

**NEW MEMBERS**

David Damon, KE4YLR  
Charles Varner, WA4OVD  
Chris Stroot, None

**CALL CORRECTION**

Earl Newton, KE4UFP

**220 News**

The 224.76 repeater has been up for more than a year now. Our coverage is not quite the same as 146.76, but we are taking steps to improve that. We don't seem to do quite as well to the West as 146.76. We do quite well to the South with contacts from as far away as Farmville. We have heard from Harrisonburg and Madison to the North. At least two of us have plans to go 220 mobilizing this Spring so we will have a more detailed coverage report shortly.

Plans are moving forward for a new duplexer and a preamp is in discussion. A 220 Net now meets each Tuesday evening on 224.760. Pete (AD4TU) is Net control. Make plans to join in if you have 220 equipment.

**Bob (KM4DU)**

## VE EXAMS

### VIRGINIA VE TESTING INFORMATION

05/03/95, A, Warrenton,, 703-364-3861, Neil Spokes  
 05/12/95, A, Galax,, 703-766-3121, Joseph A Kolb  
**05/13/95 A Charlottesville 804 973-1094 John Gray**  
 05/13/95, A, Culpeper,, 703-547-3089, Bill Brown  
 05/13/95, A, Middletown,, 703-636-1176, Thomas Blicharz  
 05/15/95, A, Coeburn,, 703-395-6595, Clinton W Hawkins, Jr  
 05/20/95, 5, Newport News,, 804-595-3574, Bruce Young  
 05/21/95, A, Lynchburg,, 804-386-4651, Charles L Beard AD4ST  
 05/21/95, A, Roanoke,, 703-268-1017, Gordon Garrett  
 05/26/95, A, Arlington,, 703-756-8994, James W Fox  
 05/26/95, A, Stafford,, 703-786-8012, Jim McCloud N4LZJ  
 05/27/95, 5, Gloucester,, 804-484-2857, Fran Sterling  
 06/03/95, A, Virginia Beach,, 804-468-9166, Judy Rogers

The following individuals seem to be the regular contact persons for VE Exams in their area. If you wish to check on the availability of future exams in their area, please contact them.

Culpeper	Bill Brown	703 547-3089
Harrisonburg	Marshall Cooper	703 856-8012
Richmond	Rick Cook	804 798-5048
Lynchburg	Charles Beard	804 386-4651
Roanoke	Fred Horton	703 366-6266
Orange County	Kelly Shaw	703 891-5581
Charlottesville	John Gray	804 973-1094 We will always announce the Charlottesville sessions in plenty of time.

## CLUB BUSINESS

**AARC Board Meeting April 4, 1995**

There will NOT be a July Board Meeting. National Holiday.

Approved the purchase of 10 Emergency vests for resale for \$5. Hein (N4FWA) will order.

**AARC Regular Meeting Minutes-- April 11, 1995**

Minutes of March Meeting were approved with one correction. Earl Newton's call is KE4UFP..

New members approved:

David Damon, KE4YLR

Charles Varner, WA4OVD

Chris Stroot, None

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 There will be an Open House at Bonanza on May 18th. This is for the purpose of viewing the new AARC Display cabinet. Time is 6:30-8:00 PM. Bring a friend.

New Emergency Vests have been ordered. See Hein (N4FWA) to get your vest.

Reminder about the May 13th VE SESSION. See notice this page.

Treasurer's Report: \$6106.31 balance. See complete report on next page.

Education: We need to encourage young people to enter Amateur Radio.

The Novice/Technician Class just ending has been a good class.

Watch and listen for information concerning a trip to Greenbank in May. (If you are interested and do not attend club meetings you need to let Joe Fritz (KD4RWX) know so that you can be told if a meeting

## A VE SESSION IN CHARLOTTESVILLE

The AARC VE Group will conduct a session at the National Radio Astronomy Observatory Auditorium, Edgemont Road, on the grounds of the University of Virginia, Charlottesville, VA. Exams for all classes of Amateur Licenses will be offered at the session beginning at 9:30 AM, Saturday May 13, 1995. Since we generate the examinations locally by computer we **require ADVANCE REGISTRATION**. Registration can be made by sending the following to John Gray, W6UZ, 110 Carrsbrook Court, Charlottesville, VA 22901:

1. A completed FCC form 610 (version November 1993 or later)
2. A note indicating the examination you wish to take
3. A check or Money Order in the amount of \$5.90 made out to AARC VE SESSION
4. A self-addressed, stamped envelope if you wish confirmation

**The deadline for acceptance of registration materials will be May 10.** Your cooperation will be greatly appreciated. Advance information or Form 610s can be obtained by contacting W6UZ at the above address or at 804 973 1094.

Those planning to attend the Volunteer Examining Session should should bring the following items:

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 additional 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 1094.

is set up form May. Phone: 804 973-1738)

Reminder that Field Day 95 will be June 24-25. (Earlsville Fire Station)

The program for next month's meeting will feature Bud (KB4JN1). There will be opportunity to check your 2 meter gear.

The presentation was by Ernie (W2EIU). He presented information and demonstrations related to CPR. There was good interaction from the audience and the presentation was well received.

Meeting adjourned The meeting was reconvened to admit a new member Chris Stroot. It was again adjourned.

Joe Fritz (KD4RWX), Secretary

January 1, 1995 -  
April 17, 1995

ALBEMARLE AMATEUR RADIO CLUB, INC.  
TREASURER'S REPORT  
MONTHLY REPORT

Treasurer:  
Sharon Duvall, KO4OC

1995 - INCOME

DESCRIPTION	AMOUNT	SUB-TOTAL	TOTALS
<b>Income: Dues</b>			
Dues: 1995	915.00		
Dues: 1996			
<b>Total Income: Dues</b>		<b>\$915.00</b>	
<b>Income: Miscellaneous</b>			
Subscriptions			
Raffles	37.00		
T-Shirt sales			
ID Vests Sold			
ARRL Renewals-by members	8.00		
Directories			
Sale of class Books:			
Now You're Talking	230.00		
Name badges			
<b>Total Income: Miscellaneous</b>		<b>\$275.00</b>	
<b>Income: Donations</b>			
Sale of Surplus Material	1346.00		
Repeater packet cash	140.00		
Cnty of Albemarle: ID Vests	200.00		
<b>Total Income: Donations</b>		<b>\$1686.00</b>	
<b>TOTAL INCOME TO DATE</b>			<b>\$2876.00</b>

1995 - EXPENSES

DESCRIPTION	AMOUNT	SUB-TOTAL	TOTALS
<b>Expenses: Equipment Purchased</b>			
Repeater related	506.12		
Packet related			
<b>Total Expenses: Equipment</b>			<b>\$506.12</b>
<b>Expenses: Miscellaneous</b>			
Postage and Pub. costs			
Telephone	144.80		
Equipment Insurance			
Meeting Refreshments	75.00		
Picnic Shelter			
Va. State Corporation Fee	25.00		
Winter Dinner Appropriation	248.50		
Books and Tapes for class	205.90		
SERA Membership			
Supplies	9.33		
<b>Total Expenses: Miscellaneous</b>			<b>\$708.53</b>
<b>Expenses: Special Projects</b>			
T-Shirts for resale			
Bonanza Display case	268.82		
<b>Total Expenses: Special Projects</b>			<b>268.82</b>
<b>TOTAL EXPENSES TO DATE</b>			<b>\$1483.47</b>
<b>1995 GAIN OR LOSS TO DATE</b>			<b>\$1392.53</b>
1994 Balance Brought Forward (1-1-95)			\$4713.78
<b>CURRENT BALANCE</b>			<b>\$6106.31</b>

MEMBERSHIP COUNT: As of March 28, 1995  
 Regular Members 117  
 Youth Members 13  
 Life Members 3  
Total Members 133  
 Non-Member SUBSCRIBER ONLY 6.

MAY 1995

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 INFO-NET 7:00 pm	2 Board Meeting & Technical Session 7:00 P M	3 Lunch Bonanza 11-1 KD4QBB	4 ARES NET 8:00 PM	5	6
7	8 INFO-NET 7:00 pm	9 AARC MEETING 7:30 PM	10 Lunch Bonanza 11-1	11 ARES NET 8:00 PM MJ HOUSE DRILL (POSS. 25TH)	12	13
14	15 INFO-NET 7:00 pm KE4KJB	16 KE4AQD	17 Lunch Bonanza 11-1	18 ARES NET 8:00 PM	19 KE4OIB	20
21 WB2MVA T-HUNT AUGUSTA COUNTY	22 INFO-NET 7:00 pm	23 KQ4MZ	24 Lunch Bonanza 11-1 KD4QBC	25 ARES NET 8:00 PM	26 AD4AD	27
28	29 INFO-NET 7:00 pm	30	31 Lunch Bonanza 11-1			

PRACTICE RANDOM ACTS OF KINDNESS AND SENSELESS ACTS OF BEAUTY

## What's Up??

S.E. (Chuck) Mills  
WB4QKT

I've decided to write a short, semi-regular feature of the AARC Newsletter to update the membership on Amateur satellites. Hopefully, my enthusiasm for this aspect of HAM radio will be contagious. My goal is to start with some introductory and historical data. This will be followed by the basics of tracking, and then a logical progression from working the "easy" satellites to the more advanced, high orbiting birds and digital sats. I really think there's something for everyone here. Even if you only own an HF rig with a dipole you can work RS-12 if you know when (tracking!!) and where to listen/transmit. A hand-held dual band FM rig will get you on AO-27 with only a modest addition to the "rubber duckie" antenna. Again, though, you have to know when to listen (or else have a lot of time) and, thus, the value of the computer-based tracking programs, which will be discussed in "part 2."

### Amateur Satellites - Introduction and History

Using satellites to receive and retransmit radio waves was first proposed by the science fiction writer, Arthur C. Clarke in 1945 (ref: Clarke AC, Extra-terrestrial relays. *Wireless World* 51(303); Chapter 3, 1945). Today, satellite communications are a way of life for all of us. Satellite communications offers some major advantages over low-frequency "skip" communications for long distances. It allows reliable, long distance communication that does not rely on the sunspot cycle to maintain propagation. Variations in signal strength that are common during skip contacts don't occur with satellite communications. One of the big "pluses" of satellite communication is that much of it takes place on 2 meters, a portion of the HAM bands that Technician-class licensees may use. Thus, you will have the ticket you need for most satellite operations after you pass your Technicians examination. Another plus to satellite communications is that voice and CW communications are fully duplex, that means you hear your own signal coming back at the same time that the other person does. A great way to be sure that your system is working, even if no one answers your "CQ."

Many of you may not remember when the Russians orbited "Sputnik-1" the first artificial (man-made) satellite on October 4, 1957. Even if you do remember, you may be surprised to know that only 4 years later, on December 12, 1961 amateur radio operators orbited the first "HAM" satellite, known as OSCAR-1. OSCAR stands for Orbiting Satellite Carrying Amateur Radio. This first OSCAR satellite was a battery-powered beacon transmitter only, emitting a weak, 0.1 watt signal on 144.983 Mhz that said "Hi" in Morse code (dit-dit-dit-dit...dit-dit). It was built for \$26.00 worth of spare parts and transmitted for 21 days. Nonetheless, it was heard by hundreds of amateur operators, worldwide. Over the years, the amateur satellites have become increasingly sophisticated. The culmination of this will be the "Phase 3-D" satellite scheduled to be launched in April 1996 and discussed in some detail in the May 1995 *QST*.

The "P3D" designation refers to the three "phases" that amateur satellites have passed through. Phase 1 was typified by the early beacon-only satellites, like Oscar-1. These could be heard, but they did not receive and retransmit signals from the earth. Phase 2 consists of transponders in low earth orbit. These satellites receive signals from earth on one frequency and retransmit (transpond) them on a second, offset frequency. Thus, they function somewhat like a 2-meter repeater,

but, unlike the latter, they can handle multiple signals at one time. Current analog (voice and CW) Phase 2 satellites include the Russian "RS" series, RS-10/11, RS-12/13, and RS-15, Japan's FO-20, and AC 27. The digital "microsats" also fit into the Phase 2 category, and these are some of the newest amateur satellites. Microsats are very small (about 9 inches on each side) cubes that can be launched several at a time in low earth orbit and primarily function as digital "store and forward" information centers. They have been so successful that they are under considerable study by commercial companies for possible duplication for the general public.

The Phase 3 satellites consist of transponder satellites, in principal much like those in Phase 2, but with more elaborate and more powerful transmitters placed in highly elliptical orbits rising to about 40,000 km (28,000 miles) above the earth at their highest point. Because of this much higher altitude, these satellites give access to virtually half of the earth at any time and stay visible for up to 6 hours per pass. In contrast, the low orbit satellites have about 10-20 minute passes. In the Phase 3 group is the current primary satellite, AO (American OSCAR)-13, and its only partially functional older brother, AO-10. The former, better of the two will, unfortunately, reenter the earth's atmosphere and burn up in about December 1996. With luck, however, its vastly superior Phase 3D replacement will already be functional.

### WHY RADIO AMATEURS ARE CALLED "HAMS"

From Florida Skip Magazine - 1959

Have you ever wondered why radio amateurs are called "HAMS"? Well, it goes like this: The word "HAM" as applied to 1908 was the station CALL of the first amateur wireless stations operated by some amateurs of the Harvard Radio Club. They were ALBERTS HYMAN, BOB ALMY and POGGIE MURRAY. At first they called their station "HYMAN, ALMY-MURRAY". Tapping out such a long name in code soon became tiresome and called for a revision. They changed it to "HY-AL-MU", using the first two letters of each of their names. Early in 1901 some confusion resulted between signals from amateur wireless station "HYALMU" and a Mexican ship named "HYALMO". They then decided to use only the first letter of each name, and the station CALL became "HAM". In the early pioneer days of unregulated radio amateur operators picked their own frequency and call-letters. Then, as now, some amateurs had better signals than commercial stations. The resulting interference came to the attention of congressional committees in Washington and Congress gave much time to proposed legislation designed to critically limit amateur radio activity.

In 1911, ALBERT HYMAN chose the controversial WIRELESS REGULATION BILL as the topic for his Thesis at Harvard. His instructor insisted that a copy be sent to Senator DAVID I. WALSH, a member of one of the committees hearing the Bill. The Senator was so impressed with the thesis that he asked HYMAN to appear before the committee. ALBERT HYMAN took the stand and described how the little station was built and almost cried when he told the crowded committee room that if the BILL went through that they would have to close down the station because they could not afford the license fees and all the other requirements which the BILL imposed on amateur stations. Congressional debate began on the WIRELESS REGULATION BILL and little station "HAM" became the symbol for all the little amateur stations in the country crying to be saved from the menace and greed of the big commercial stations who didn't want them around. The BILL finally got to the floor of Congress and every speaker talked

about the "...poor little station HAM". That's how it all started. You will find the whole story in the Congressional Record. Nation-wide publicity associated station "HAM" with amateur radio operators. From that day to this, and probably until the end of time in radio an amateur is a "HAM"

terry.mccarty@outland.raleigh.nc.us (Former K1SWL)  
Submitted by Chuck (WB4QKT)

## FOR SALE or WANT

[If you wish to have something printed in this section please contact Joe (KD4RWX) ]

### WANTED: ANTENNA TUNER

Rick, KO4WQ, is looking for an inexpensive antenna tuner for QRP operation. If you have something, call him at 804-823-1126

### WANTED: TOWER

3/9/95

Pat, N0RDQ, is looking for a crank up tower. Call him at 804-978-4117.

### FOR SALE: HEATH RIGS

4/6/95

Ernie, W2EIU, has for sale CHEAP a Heath DX60 transmitter and a Heath Twoer (two meter AM) and he is looking for a two meter rig for packet radio. Call him at 985-4180.

### FOR SALE: 220 RIG

4/13/95

HELLO ALL, I HAVE FOR SALE A KENWOOD TM331 220 MHZ RIG FOR SALE. COMES WITH A LARSON MAG MOUNT. I CAN BE REACHED AT 908-920-0838. TNX RAY, WA2QLU.

### WANTED: VHF HANDHELD 2M/450

4/13/95

Chris, a ham to be, is looking for a 2m handheld or a 2m/450 dual bander. Call him at 985-7800 if you have one you want to sell.

### WANTED: HF RIG

4/13/95

Mike, KE4WPG, is looking for an hf transceiver with general coverage receiver. Contact him at 295-6915 home or 971-2641 work.

### WANTED: ICOM HEADSET

4/13/95

Hi all, I would like to find a head set mike for my icom IC27 a mobile radio, if you have one and want to get rid of it, give me a call at (703)943-9968 or drop me a message at WA4TFZ PBBS. Name here is Richard, my call is N4SIH, I live in Crimora, VA. thanks and 73 .....

### WANTED 01A TUBES

I would like to obtain several 01A tubes. I could use about a dozen. If you have any for sale contact me, Carter (WD4AYS) at 804-979-7388 (H) or 804-980-7698 (W).

## DO YOU LIKE BARBECUE?

The Albemarle Amateur Radio Club wishes to thank the Earlysville Volunteer Fire Company organization for permitting our use of their facilities for Field Day the last few years and this year as well. I hope that readers of this newsletter will consider the following activity of the Earlysville Volunteer Fire Company as a way of showing your appreciation for their contribution to our Club's activities.

## THE EARLYSVILLE VOLUNTEER FIRE COMPANY

### FUND RAISING BARBECUE

MAY 13th

during the evening.

For more information you might try calling their non-fire number: 973-8862

**1995 - ALBEMARLE AMATEUR RADIO CLUB - 1995**

**OFFICERS & BOARD MEMBERS**

President	LeRoy Sutter	WA4MHP
Vice-President	Rick Berman	KO4WQ
Treasurer	Sharon Duvall	KO4OC
Secretary	Joe Fritz	KD4RWX
Director	Brian Fox	KE4HIA
Director	Joe Giovanelli	W2PVY
Director	Bill Hariu	N4ZZB
Director	Gerald Nauman	KN4FM
Director	Elwood Shrader	KB4DJN

**COMMITTEE LEADERS**

<u>Director</u>		<u>Committee</u>	<u>Chairperson</u>
Gerald Nauman	KN4FM	Technical	OPEN
		Digital (Sub-com)	Greg, N4PGS
Elwood Shrader	KB4DJN	Publications	Joe Fritz, KD4RWX
Brian Fox	KE4HIA	Education	Bob Ross, WA2MFI
LeRoy Sutter	WA4MHP	Activities	Hein Hvatum, N4FWA
Sharon Duvall	KO4OC	Fund-Raising	Bob Pattison, KM4DU
Bill Hariu	N4ZZB (Co-Director)	Recycling	Ron Richey, K4RKA
		Awards	Joe Fritz, KD4RWX

**OTHER POSITIONS**

ARRL Liaison	Brian Fox, KE4HIA
ARES/RACES Coordinator	Hein Hvatum, N4FWA
AARL VE Coordinator	John Gray, W6UZ
Trustee (WA4TFZ)	Morris Jones, NM4R
Newsletter Editor	Joe Fritz, KD4RWX

**AARC BULLETIN  
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**DEADLINE FOR EACH ISSUE**

The 15th-17th of each month should be considered as the last dates to submit information for the NEXT MONTH'S BULLETIN. In some circumstances it may be possible to send information a week later. Check with me. Joe, KD4RWX

**CLUB MEETINGS**

**Regular Meeting:**

Second Tuesday of each month at 7:30 p.m.

**Board and Technical Meetings:**

First Tuesday of each month at 7:00 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 enabled, DTMF 325 will produce temporary Tone off and 326 will turn Tone back on)
Emergency Autopatch to access the 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	no tone	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, Virginia 22906



**AARC BULLETIN**  
May 1995

Please check your mailing label for correctness of the information.. Notify Joe (KD4RWX) of corrections needed. It is time to renew membership.

CORRECTION OF LABEL INFORMATION REQUESTED ---TO CORRECT CALL PHONE 973-1738 ---Y D  
KA4JJD N 1995 CURRENT MEMBER

Michael F. Rein  
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