

The OVH ARC Newsletter  
"OLE VIRGINIA HAMS" AMATEUR RADIO CLUB, INC.  
Post Office Box 1255, Manassas, Va. 20108  
Repeaters - W4OVH - 146.970- & 224.660- & 442.200+  
OVH Nodes - Port 1: 145.030 Mhz; Port 3: 223.540 MHz;  
Port 4: 440.925Mhz 9600 Baud backbone / N3OH (SYSOP--BILL)  
<http://www.w4ovh.net>

# OLE VIRGINIA TIMES

## MAY 2007

### Next Meeting: May 21, 2007

#### PRESIDENT'S LETTER:

Greetings to all, I'm sure all of us are busy preparing for the late spring and summer fun. As the OVH Manassas Hamfest fast approaches, there is much to do. I hope we can count on all the club members to come out and support the event. Don't forget to tell your ham and other friends about it too.

It looks like we may not have a "major" dealer attending. However, we have quite a few dealers and "flee-marketeers," and great door prizes. Some of us will be at the Dayton Hamvention with a mission to distribute our flyers and talk to vendors.

It's unfortunate that the Rochester NY Hamfest has moved to the same weekend as ours; as a result, many folks to the north may be attending Rochester, but we're still expecting to have good attendance and lots of fun.

Please mark your calendars for Saturday, June 2nd for Hamfest setup, and Sunday, June 3rd for the Hamfest itself, including tear down.

Congratulations to Karl/K4KRL who is the winner of the CNC design contest. Karl's entry was a well thought out and nicely done front panel. I will post an invite on the OVH reflector (once a date has been chosen in June) so that all interested can visit my lab and watch the CNC mill Karl's panel. During that session, we'll take you from CAD design, through CNC machining, to the final product. My hopes are this will excite folks about home brewing professional looking equipment and get back to the excitement and pride of "rolling your own!"

Hope to see you all at the upcoming OVH monthly meeting on Monday, May 21st at 7:30 p.m. and at the OVH Hamfest setup beginning early in the morning on June 2nd.

73, George, K4GVT



# Ole Virginia Hams Amateur Radio Club, Inc.

Post Office Box 1255  
Manassas, Virginia 20108

## OFFICERS

President:	George Tarnovsky	K4GVT	791-5956
Vice Pres:	Ruth Frock	KU4WH	331-1234
Secretary:	Wayne Phillips	N7QLK	393-8447
Treasurer:	Bill Ellis	WA4FIC	335-9935

## DIRECTORS

Don (Butch) Blasdell	W4HJL	369-2877
Art Whittum	W1CRO	791-4330
Charlie Dale	WA4YGI	361-3091

## WEEKLY NETS

Thursdays - 8:00 PM	JOHN H	257-3566
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## HAMFEST 2007

Butch	W4HJL	369-2877
Charlie	WA4YGI	361-3091

## FIELD DAY 2007

George T.	K4GVT	791-5956
Butch B.	W4HJL	369-2877

## CLUB ROSTER

Blaine	KB4RKL	369-2877
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## EDUCATION

Trish Wells	KI4PCM	335-1096
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## CLUB EMERGENCY COORDINATOR

David Meola	KI4AZX	393-6681
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## ARES AREA EMERGENCY COORDINATOR

David Lane	KG4GIY	361-3042
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## F.A.R. REPS.

Ruth	KU4WH	331-1234
Mary Lu	KB4EFP	369-2877

## FINANCE

Mary Lu	KB4EFP	369-2877
Bill	N3OH	590-9562
Ruth	KU4WH	331-1234

## GENERATORS

Steve	N4OGR	361-0008
Keith	KM4AA	909-1512
Al	KB4BHB	368-4794

## HISTORIAN

Theresa	KG4TVM	257-3566
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## HOME PAGE

Bill	N3OH	590-9562
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## JOTA

John H.	KG4NXT	257-3566
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## LEGAL

Pete	KB4RME	369-2436
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## MEMBERSHIP CHAIRMAN

Joe Dobes	KI4OHR	369-2639
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## NEWSLETTER

Paul	W4ZB	754-0910
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## NEWSLINE

Karl	W4KRL	802-1527
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## PACKET

Alan	KD4KBX	330-8844
Bill	N3OH	590-9562

## PROGRAMS

TBA

## PUBLICITY

Trish Rabe	KI4PCM	335-1096
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## QUARTERMASTER

Steve	N4OGR	361-0008
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## REPEATER CONTROLLERS

Art	W1CRO	791-4330
Butch	W4HJL	369-2877
Milt	N4SN	369-7265
Steve	N4OGR	361-0008
Alan	KD4KBX	330-8844

## REPEATER TRUSTEE

Art	W1CRO	791-4330
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## SCHOLARSHIP

Jim	W4JTP	392-0150
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## SUNSHINE

Jan	KE4TMW	257-0897
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## TECHNICAL COMMITTEE

Art	W1CRO	791-4330
Alan	KD4KBX	330-8844
Bill	N3OH	590-9562
Butch	W4HJL	369-2877
George	K4GVT	791-5956
Karl	W4KRL	802-1527
Bob	K4HJF	335-1939

All telephone numbers listed above are for Area Code 703 unless otherwise noted.

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The OVH ARC meets at 7:30 p.m. local time every third Monday of the month at the NOVEC Tech Center on Wellington Road in Gainesville, Virginia. Prospective members or other interested persons are invited to attend. Local information can always be obtained, at any time, through the OVH's FM repeaters on 146.97 & 224.660 Mhz. All are welcome. Up to date information about OVH activities and meetings is also available on the OVH website at <http://www.w4ovh.net>.

Permission is hereby granted for the reprinting of articles and quotations in this letter provided full credit is given to the OVH ARC and the author or other source of the article. Contribution of printed articles by both members and non-members is encouraged. The deadline for submissions is the 5th of each month. Submissions should be forwarded to OVH TIMES Editor: W4ZB@RLAW.COM.

Letters to the Editor and Classified Ads are accepted and welcome. Approx. Circulation - 170.

Last Rev: 04/23/2007

## Sunshine Corner:

Happy Birthday to our friends and fellow Hams this month: Blaine/KB4RKL, Craig/N4WUV, John/KG4NXT, David/KG4GIY, Bob/N4RL, Jack/N4YIC, Jim/W4JTP, Susan/K3SSP and Craig/WA3UFY.

Congratulations to Morgan/KI4OWG and his wife on the new addition to their family.

Joe/KI4OHR is continuing to recover from his leg fracture, but that did not prevent him from scheduling and coordinating the successful Cedar Point Elementary ARISS event which was held on Tuesday, April 17th! (More about that below.)

Volunteers are still needed for the upcoming Hamfest! It's your Club, and your Hamfest! This monthly Sunshine Corner job is still open for a new volunteer! Someone please step forward to relieve me!

73 de Jan/KE4TMW

## Minutes of the Ole Virginia Hams Amateur Radio Club Meeting April 16, 2007:

George / K4GVT called meeting to order at 1930 Eastern Time.

Following the Pledge of Allegiance, all present stated their names and call signs. There were 26 OVH members present. Following the Pledge of Allegiance, a moment of prayer was taken for the 30+ Virginia Tech students killed earlier in the day.

### BUSINESS MEETING

The minutes of the March 2007 meeting were approved.

Treasury report: Balance is in good standing. Report approved.

Committee Report: Hamfest: More vendors have announced their intentions to attend; George/K4GVT has invited more vendors. Email George any leads of vendors from down south who might be interested and George will contact them. Truck, food, place are all 'in-place'.

Training: General class Mark/WA4KFZ will consider teaching a General class after seeing the results of the ISS program tomorrow.

ISS: George/K4GVT has tested equipment at Cedar Point Elementary School in Bristow, all is ready to go for the program at the school beginning at 2:00 p.m. tomorrow (April 17th); no outdoor radio communications have been setup for direct communications with the ISS which will be over Australia during the telelinked contact session. Good media coverage is expected. Brian/WC4J requested that a recording be made for the record.

Scholarships: \$1,000 has allocated for the OVH scholarships this year. Jim/W4JTP sent out notices to local High School counselors. No change from previous meeting.

Repeater: Butch/W4HJL and Art/W1CRO tweaked the repeater. There appears to be a problem with the controller and the autopatch is still not working on 2 meters, but is working on 220/440. Art is looking to upload the latest firmware and operational files to correct this problem. Otherwise all is working well; thanks to all who have helped out.

Field Day: Our place at the Park in Nokesville has been confirmed again. Need volunteers and

operators. Phil/AC4PL will cook. Bill/N3OH may be able to provide laptops for logging.

Meeting Programs: Make desires known. Envelopes were stuffed with flyers to notify/remind other clubs of the upcoming Manassas Hamfest.

Membership Report: One person read-in: Thomas Bohacek (AI4UZ).

ARES: Steve/N4OGR: April 26th: VERTEC hurricane drill for Prince William Hospital, looking for volunteers. May 5th: 05:00 17:00 Dulles disaster drill - volunteers needed. May 19/20th: MS 150, Brian/WC4J will be NCS, volunteers needed. Will try to actively track the SAG (support and gear) wagons. April 28/29- 24hr (7am Sat-7am Sun) race PW forest park (off RT 619); endurance race, Brian is looking for operators to work 6 hr shifts w/ 2m. Fleetwatch: we continue to monitor the VRE lot near the Manassas Airport, and the Portsmouth lot near the Manassas Mall. No additional news on National Night Out to be held in August.

Old Business: August 25th: Bill/N3OH is working on the special event station to commemorate the Second Battle of Manassas, which this year will be located at Strayer College right next to the Manassas National Battlefield Park. Details on the OVH website; Brian/WC4J will offer his trailer again. Al/KB4BHB displayed a proposed certificate (made by Elizabeth, John KG4NXT daughter). We will need to supply and use our own generator this year.

New Business and Announcements:

Brian/WC4J: suggest that you send a QSL card to Virginia Tech (see VT website for K4KDJ) stating that the deceased at VT are in our prayers.

Bill/N3OH: suggested that members provide snapshots (head/shoulders) and short biographical information to be posted on the OVH website.

George/K4GVT: displayed aluminum panels made using his CNC router; provide George materials, dimensions and other details, and he can now make it.

Art/W1CRO: Everyone should have received a new autopatch information card with the new autopatch information which takes effect on April 21st.

Ken/WB4ZOH: has photos of last year's Manassas Battlefield Special Event Station operation. Email him if you would like a disk with photos.

50/50 for \$17: Steve/N4OGR won.

Meeting adjourned: 20:34.

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## Reminders about some upcoming events / calendar dates:

### HAMFESTS

June 2nd. Setup for the Manassas Hamfest. Be there to help out! More about this below.

June 3rd. The Manassas Hamfest. Be there, and pitch in. More about this on the next page.

### OPERATING CONTESTS

May 26th/27th. The CQWW CW Contest on the HF bands. Brian/WC4J has invited everyone to his QTH in Nokesville and is looking for CW operators to help out.

### ANNUAL FIELD DAY

June 23rd/24th. Mark your calendar; this major, fun annual OVH/ARRL event is fast approaching.

## Some Last Minute Notes About The Upcoming Manassas/OVH Hamfest

As of now, a few more people are needed to man the front entrance gate and the rear (tailgate entrance) gate. For the rear gate, contact Doc/W1IMX. For the front gate, contact John/KG4NXT. Overnight security (Saturday night) also needs a few more people. Contact Brian/WC4J. Theresa/KG4TVM who is in charge of the Bake Sale reminds everyone to bring bake sale items (cookies, breads, Brownies, cupcakes, fudge, cakes, and similar items) to the Hamfest on Sunday morning, June 3rd.

Setup for the Hamfest will be on Saturday morning, June 2nd. We will convene at the McDonald's off of Dumfries Road just north of the Prince William County Fairgrounds at 08:00 for breakfast. After breakfast, everyone will go to the nearby Fairgrounds to work on the setup. Steve/N4OGR will depart for the rental places in Chantilly for pickup of the truck, tables and chairs.

A Hamfest flyer is included below - send copies to your friends. Contact Butch/W4HJL or others mentioned for more information and/or be sure to attend the OVH next meeting on Monday evening, May 21st.

### Follow up: ARISS Contact For Students At Cedar Point Elementary School, Bristow, Virginia

Joe/KI4OHR, George/K4GVT and others made arrangements reported last month for the students at the Cedar Point Elementary School in Bristow, Prince William County, Virginia to make live voice contact via amateur radio (through a telebridge linkup to Australia) with amateur radio station NA1SS on board the International Space Station (ISS) on orbit on Tuesday afternoon, April 17, 2007 EDT.

The ARISS contact with NA1SS occurred successfully, indeed, flawlessly at 15:05 local time on April 17th according to the audio recording made by Mark/WA3KFZ, one of a number of OVHers who attended live. Mark has posted the audio recording he made on his website, and you should listen to it. Charles Simonyi, KE7KDP, at NA1SS did a superb job of rapidly fielding questions put to him by the students, none of whom, however, asked him anything about Martha Stewart.

Any OVHers who attended and took pictures of the event, please forward them to your editor who will include them in a final "follow up" next month. Also, other OVHers who were there and want to be recorded as having been there, please let your editor know.

### Launch Sites For Amateur Radio Satellites

No responses were received to the query last month for a listing of the launch sites used since 1961 for successful launch of ham radio satellites into earth orbit. Here is the specially compiled listing of the sites: Vandenberg Air Force Base - California; Cape Canaveral Air Force Station / Kennedy Space Center - Florida; Kourou - French Guiana; Plesetsk - Russia; Baikonur - Kazakhstan; Tanegashima Island - Japan; Kodiak Launch Complex - Alaska; Kagoshima - Kyushu, Japan; and Sriharikota - India. The contiguous, but distinct Cape Canaveral Air Force Station and Kennedy Space Center launch sites in Florida have been counted as only one launch site. All of these launch sites are still active.

### Remembering Radio Moscow - What Ever Happened The News From Russia?

Anyone who operated on the 40 meter band during the Cold War period certainly remembers Radio Moscow. Its multichannel AM signals used to arrive on the East Coast at 40+ over S9 from afternoon until morning, rendering much of that band unusable for ham radio. The AM signals were so strong they could be received using just a short wire antenna, a tuned circuit, a diode and an earphone. In the 1990's Radio Moscow's propaganda broadcasts were replaced by the less aggressive Voice of Russia AM broadcasts which use only modest power and transmit on only a few frequencies. Now there is something new and relatively informative from Russia, this time on the Internet. If you have DSL, check out <http://russiatoday.ru> for a 24/7 English language video feed of Russian perspective news.

## Computer Aided Design (CAD) Software Tools For Ham Radio

Last month George/K4GVT posed a challenge to OVH members to try out some free CAD software to design a panel using the Front Panel Express program. George has declared Karl/W4KRL as the winner, and next month George will demonstrate in his shop / lab the use of a CNC machine tool to fabricate the aluminum panel which Karl designed. Below we consider some other ham radio related CAD tools.

**Antenna Modelling.** The EZNEC program by W7EL and several other commercial antenna modelling programs sold to the ham radio market has turned antenna modelling into a popular ham radio activity. (The ARRL now offers a very good tutorial publication about Antenna Modelling.) These commercial programs work well, but all are pricey. A freeware antenna modelling program developed by an individual in Europe is supposed to offer similar capabilities to EZNEC and has recently received very favorable reviews in several European ham publications. Check out <http://home.ict.nl/~arivoors/>

**Smith Chart Analyses.** The ARRL formerly provided the MicroSmith and winMicroSmith programs by W7ZOI for designing RF matching networks and solving a wide range of ham radio related transmission line and antenna matching problems. Those excellent programs were customized for ham radio problems and thus, are relatively easy / straightforward to use, saving hours of time doing manual calculations and/or plotting on classic Smith Charts. If you don't have access to one of W7ZOI's programs, you should try out one of the freeware Smith Chart programs. These can produce the same results but are more generalized, i.e., not as straightforward to use for "simple" ham problems. Check out <http://www.fritz.dellsperger.net/> [downloads] for Smith v. 2.03 and some good tutorial information about Smith Charts. The website <http://www.hp.woodshot.com/> provides several older Smith Chart programs formerly supported by Hewlett Packard.

**RF Filter Design.** The freeware program RFSim99.exe developed by an individual in England is a particularly useful and powerful program. Google "RFSim99.exe" to find a download source.

**Basic Calculations.** PowerCalc which includes scientific calculator features, limited graphing capabilities and a history tape is included in Microsoft's freeware PowerToys for XP package downloadable from [microsoft.com](http://microsoft.com). Your editor finds this indispensable on the desktop on all XP machines which he uses.

**SPICE - Circuit Simulation.** Many freeware and commercial versions of this class of circuit design simulation software are available from many sources. Use of the generalized SPICE software requires basic electrical engineering knowledge of circuit design; custom SPICE implementations tailored for specific circuit types allow tweaking/optimization without such specialized knowledge and many such freeware tools are available for design of ham related circuitry. These tools permit circuit performance to be predicted before breadboarding / construction / testing of actual physical circuits.

**PC Board Layout.** Several online vendors which provide low cost and low quantity runs of custom printed circuit boards (PCBs) provide "free" custom PCB layout software for use when ordering custom PCBs from them. Anyone with direct experience / recommendations please let your editor know so the information (recommendations) can be shared.

**Precision Drafting/Drawing.** If you don't have access to AutoCad or another precision drafting program, you might want to try one of the following freeware packages recently recommended in Cadalyst magazine which covers computerized drafting. Cadlogic (<http://www.cadlogic.com/products/draftit/>); Alibre Design Xpress (<http://www.alibre.com/products/>); and Solidedge (<http://www.solidedge.com/free2D/>).

Your editor would appreciate receiving information about your favorite, particularly useful CAD tools, especially freeware tools so that that information can be shared. More on this topic in future newsletters.

## WiFi In The Future? / D-Star? / Something Else Unspecified?

Flame-like exchanges erupted on OVH email reflector last month about the merit or lack of merit of using WiFi / D-Star / and other unspecified future digital technologies in the Ham Radio environment. That occurred just before the cutoff for the April OVH Newsletter, some brief comments about those exchanges appeared in the April Newsletter and the exchanges abruptly ceased. Had the parties to those exchanges fully addressed the merits of that topic by measured exchanges which were based upon "facts" or verifiable information rather than personal "opinions" by that time? Certainly not! What are the relative merits of those particular digital technologies? Everyone knows that the communications world has been going digital for a long time. But what aspects of digital technologies are important to understanding or advancing a discussion on the merits? More discussion is needed!

Samuel Morse's original landline telegraph invention, U.S. Patent 6420 issued May 1, 1849 (TIFF pages are downloadable at <http://patft.uspto.gov/netahtml/PTO/srchnum.htm>), used an automated digital receiver for his disclosed digital coding / transmission scheme. It quickly developed, however, that aural decoding by human operators of the digital signals produced by the transmission scheme over wire lines was superior to Morse's original hardware decoder; nevertheless, those initial steps lead to a succession of improved source coding schemes for encoding symbols used in written (English language) communications into what later became known as the Morse code. Morse's original breakthrough was unconcerned with multiplexing, switching and networking issues, but those issues quickly received attention as the demand for wire telegraph communications increased. Alexander Bell's work which led to successful electrical transmissions by wire of analog voice signals was a spinoff of work focused on an improved scheme for wire telegraphy multiplexing. A good understanding of how analog signals could be digitized (source encoded) did not come about until the 1920's based upon the work of Nyquist at Bell Telephone Laboratories. Meanwhile radio had been discovered, and digital as well as analog modulation methods had been quickly adapted to radio transmission. Also, teleprinter (Teletype) devices had been invented to increase text transmission speeds and eliminate the need for skilled digital (Morse code) operators. In 1948 Claude Shannon published an extraordinary paper (A Mathematical Theory of Communication) which led to Shannon becoming known as the father of Information Theory. (PDF copy available at <http://cm.bell-labs.com/cm/ms/what/shannonday/paper.html>) Shannon showed how "information" could be measured and provided solid bases for understanding source encoding (whether from digital or analog sources) and channel coding (including automatic error correction methods) in the context of digital systems and digital transmission. Switching, multiplexing and automatic interconnection were recognized as major digital systems topics at that time and are mentioned, but were not the focus of Shannon's seminal work.

What does all of this have to do with the merits of a WiFi vs. D-Star vs. Something Else Better debate? Simple if one goes back to fundamentals: WiFi and D-Star are both radio based (automated) networking systems designed to transport digital communications between predetermined users. Originally hams sent simple text messages by Morse code between themselves using a radio transport mechanism. Analog voice and video came along later as did sources which produced arbitrarily coded digital messages (e.g. RTTY). Scroll forward. For the future - perhaps not too far off but not too soon - almost everything from information sources (or sinks) will be digitized for transmission, switching and interconnection. This includes speech as well as video (and more complicated) information sources and sinks. Almost everyone (including ham operators) will want to (or be required) to connect to others through networked systems which arbitrarily may include segments employing transmission by combinations of radio, wire, optical fiber and other mechanisms. Viewed this way WiFi and D-Star are seen as but current implementations, likely not to have too long a technological lifetime, along that rapidly changing path to the future. Which is better for ham radio use now? Why? How many others will use it, and how long before the technology is superseded? Very important: can you have fun with it while it lasts? I am reminded of a prophetic remark by a good friend in the early 1970's who had just installed an advanced \$50,000, 1024 Kb hard drive, with spinning flywheels, in a refrigerator size housing: "I always end up with a lot of junk when I buy the latest computer memory." He did. But he had a lot of fun using it (and made a lot of money too), and never regretted the purchase.

# Virginia's Ole Fashioned Manassas Hamfest

“...Always the First Sunday in June...”

## AMATEUR RADIO, COMPUTER & ELECTRONICS SHOW

**\* OUR 33<sup>rd</sup>. YEAR \***

An ARRL-Approved HAMFEST Presented By:

**The “OLE VIRGINIA HAMS” Amateur Radio Club, Inc.**

(A non-profit organization dedicated to the promotion and enhancement of Amateur Radio)

# SUNDAY, JUNE 3, 2007

## PRINCE WILLIAM COUNTY FAIRGROUNDS

10624 Dumfries Road, Manassas, VA 20112-2720 (Route 234) - TALK-IN 146.97- 224.660- 442.200+

### INDOOR EXHIBITOR SPACE

8-foot tables - \$25.00 each  
with chairs & electricity  
(*\$20 if reserved by May 1*)

(Setup 2 - 10 PM Saturday)

### GENERAL ADMISSION

\$6.00 per person at gate  
No Advance Sales

Gates open at 7:00 AM  
Free Parking

### TAILGATING

\$6.00 per space (plus admission)  
Gates open at 6:00 AM  
Ample Room - 25 acres

(Setup 2 - 10 PM Saturday)

\*\*\* **VE TESTING** - Contact David, KG4GIY ([kg4giy@arrl.net](mailto:kg4giy@arrl.net)) for more details \*\*\*

### PRIZES

- Door prizes hourly beginning at 9:00 AM
- Major & Tailgate prizes awarded at 2:00 PM  
(Need not be present to win)

### FEATURED VENDORS

**Memphis Amateur  
Electronics, Inc.**  
Your Ham Radio Store



### INFORMATION

- ARRL Roanoke Division Officers will be attending
- Virginia Section Manager's Forum
- 4<sup>th</sup> Call Area QSL Bureau Representatives will be present
- DXCC QSL Card Checking will be available
- “Virginia QSO Party” Awards Ceremony
- Food Vendors must have prior written approval from Hamfest Chairman



Directions/Details/Hotel-Info at our Web Site –<http://www.w4ovh.net>

#### Dealer Information:

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