The OVH ARC Newsletter OLE VIRGINIA HAMS" AMATEUR RADIO CLUB, INC.

Post Office Box 1255, Manassas, Va. 20108

OVH FM Repeaters - 146.970- & 224.660- & 442.200+ & 443.500+

OVH D-STAR Repeaters - W4OVH - 146.865- & 442.5125+ (now temporarily out of service)

Web Site at http://w4ovh.net

OLE VIRGINIA TIMES



March 2017

Next Meeting: Monday, March 20, 2017

PRESIDENT'S LETTER:

Let me first say as your new President, that I am honored and privileged to be a member of the Ole Virginia Hams and I look forward to serving OVH this upcoming year. I do want to thank Wayne / N7QLK for handling the reigns for the past two years; I trust Wayne will remain available to assist as needed as I transition into his former position. I have big shoes to fill and it will take some time to grow into them.

I have some ideas that I would like develop, and continue with events that we have participated in the past year. This year, the OVH will continue to provide communications support for the Manassas Mini-Tri race program. Andy



/ KJ4MTP has graciously accepted to lead that in 2017, I expect that with support from everyone, we will successfully continue those worthwhile public service efforts. Another event that I hope for the OVH again this year will be a repeat appearance at the Manassas Air Show in early May. We had a lot of interest last year, and this year, I am sure the OVH can have an even better booth at the airshow which attracts many visitors who are potential hams. I also see new and different avenues that are available to expand the club's public exposure and attracting new members, especially younger members. More to come on that. Oh, and none of us can forget about the upcoming Manassas Hamfest and Field Day, both in June. Ideas are also floating about for enhancing and improving the club's web sites.

Just a short note about repeaters, George / K4GVT and his "crew" have been hard at work with the antennas and the relocated repeaters at Mt. Pone. Seems lately, the wind has been playing with our antennas, but they are working on it. Also while on the subject of repeaters, seems there is a C4FM system online. Lots going on with repeaters ...

Ole Virginia Hams Amateur Radio Club, Inc.

Post Office Box 1255 Manassas, Virginia 20108

OFFICEDO

OFFICERS			EMAII DEDI ECTOD	4 10 1	
President: Ray Knight Vice Pres: Jeff Fuller Secretary: Byron Dillon	KM4EKR WB6UIE AK4XR	930-8222 791-5916 222-2095	EMAIL REFLECTOR – David Lane	<u>– w4ovn@googlegrou</u> KG4GIY	<u>628-3868</u>
Treasurer: Terry Erlacher	KC4DV	571-292-1490	JOTA - 2016		
DIRECTORS			John	KG4NXT	257-3566
Don (Butch) Blasdell	W4HJL	369-2877	LEGAL		
Arthur Whittum	W1CRO	791-4330	Bob	K4HJF	282-2451
Charlie Dale Bob Zaepfel	WA4YGI K4HJF	361-3091 282-2451	MEMBERSHIP CHAIR	MAN	
•			Luther	WA3FMO	361-4885
WEEKLY FM REPEATER			NEWSLETTER		
Thurs - 8:00 PM Local Time	JOHN / KG4NXT	257-3566	Paul	W4ZB	754-0910
HAMFEST 2017 - Chairma	ın				754-0910
Terry	KC4DV	571-292-1490	NEWSLINE FOR THE		
FIELD DAY 2016 - Co-Cha	irs		John H.	KG4NXT	257-3566
Ken	KD4VA	753-7863	PROGRAMS		
Byron	AK4XR	222-2095	Jeff	WB6UIE	791-5916
CLUB ROSTER / DATABA	SE		QUARTERMASTER		
Arthur	W1CRO	791-4330	Steve	N4OGR	361-0008
EDUCATION			REPEATER CONTROL	LERS	
Mark	WA4KFZ	818-8033	George	K4GVT	791-5956
CLUB EMERGENCY COO	RDINATOR		Arthur	W1CRO	791-4330
Open			Butch Steve	W4HJL N4OGR	369-2877 361-0008
•			David	KG4GIY	361-3042
ARES - EMERGENCY CO			Russ	WB4HHN	368-6435
David Lane	KG4GIY	703-628-3868 44GIY@ARRL.NET	W4OVH — TRUSTEE		
Prince William County ARES		/pwcares.org	Stu	W4PR	335-5267
FINANCE			W4PVA — TRUSTEE		
Arthur	W1CRO	791-4330	Arthur	W1CRO	791-4330
Mark	WA4KFZ	818-8033	COLLOI A DOLLID		
Terry	KC4DV	571-292-1490	SCHOLARSHIP	W4 Imp	202.0150
GENERATORS			Jim	W4JTP	392-0150
Steve Keith	N4OGR KM4AA	361-0008 909-1512	SUNSHINE		
Al	KB4BHB	368-4794	Theresa	KG4TVM	257-3566
HISTORIAN			TECHNICAL COMMIT	TEE	
Theresa	KG4TVM	257-3566	George	K4GVT	791-5956
WEBMASTER — W40VH.	NET		Arthur	W1CRO	791-4330
Paul	W4ZB	754-0910	Butch	W4HJL	369-2877
			Bill Bob	N4SV K4HJF	590.9562 335-1939
BROADBAND HAMNET (445-0001	David	KG4GIY	628-3868
Terryl	WA5NTI	445-2801			

All telephone numbers listed above are for Area Code 703 unless otherwise noted. This is the official monthly publication of the Ole Virginia Hams Amateur Radio Club, Inc., a §501(c)(3) organization, dedicated to the promotion and enhancement of Amateur Radio. Copyright © 2016 by the Ole Virginia Hams.

The OVH ARC regular monthly meeting is at 7:30 p.m. every third Monday which is held in the Main Conference Room in the Manassas Public Works Building, 8500 Public Works Drive, Manassas, Virginia. Members, prospective members and other interested persons are invited to attend without obligation. Local information can also be obtained through the OVH's FM repeaters on 146.970-, 224.660-, 442.200+ and 443.500+ MHz. The OVH's two D-Star repeaters on 146.865- and 442.5125+ MHz are temporarily off the air due to maintenance work beyond the OVH's control. Up to date information about OVH activities and its meetings is also available during the OVH's nets on its FM Repeaters each Thursday night at 8:00 p.m. or on 80 meters (3710 KHz) LSB each Sunday night at 7:00 p.m. (8:00 pm in Summer) or through the OVH's web site at http://w4ovh.net

Articles and quotations in the OVH Times newsletter may be reprinted if credit is given to the OVH ARC and any other noted source. Proposed materials for publication including pictures, articles, letters to the editor, classified ads, notes about specific errors, complaints or the like are solicited from all readers. Forward such items to the OVH Times Newsletter Editor: PAUL@W4ZB.COM as soon as available at any time, but the cutoff deadline for the OVH Times each month (usually the second Monday of the month) may preclude publication/correction until the following month.

Approx. Circulation - 170. Last Rev: 20170304

I hope to see all of you at the next meeting on March 20th at 7:30pm at the usual place: Manassas Public Works, 8500 Public Works Drive, Manassas, Virginia. The meeting will include a presentation by John / KG4NXT about the JT-9 digital mode and a preliminary report by the web site improvement group. Finally, some of our members have not yet renewed their OVH memberships for 2017. Please do so using the form at end of this Newsletter or online at the W4OVH.NET (membership application tab). Our dues are modest and we need your support!

Keep your thoughts and ideas coming to me at: RayKnight@Verizon.net

73 Ray KM4EKR

Sunshine Corner:

Happy birthday – it could be a spring or winter day – Fred / N3KVV, Russ / WB4HHN, George / NT4DX, Scott / KM4FTD, Lisa / NoCall, Gary / K4MRL and Jeff / N1SN -- each of you be sure to enjoy your day!

Terry / WA5NTI is now back at home with a full time care taker; he appreciates visitors, but please call (tel: 571-359-6889) before you go due to variable schedules each day.

We are into March and you have a great and wide choice for ham related activities – Virginia QSO Party, Vienna Hamfest, Hamfest planning meeting, monthly club meeting, Field Day planning meeting, Technician Class, Cert training and the Mini Tri. I am sure I have missed something but you get the idea, so grab a radio and join in!

Congratulations to our club Officers for 2017 based upon the elections during the February 20, 2017 meeting – new President Ray / KM4EKR, new Vice President Jeff / WB6UIE, (returning) Treasurer Terry KC4DV and (returning) Secretary Byron / AK4XR, thanks each of you for your dedication to the OVH!



Solemn passing of the Gavel after the election: Ray / KM4EKR (left) and Wayne / N7QLK (right).

Reminder – Please do turn in your log after you participate in the Virginia QSO Party, the log has a space for your club name, please make sure that you list the OVH. There is an award for club participation and we were in pretty high on the list last year!

We are just about 2-1/2 months until the Manassas Hamfest on Sunday, June 4th, if you have not volunteered yet, we still need you, please see Terry / KC4DV at a club meeting or contact him by email, telephone or during the Thursday night FM net.

Please try to check in to the Thursday night VHF/UHF FM net. You will hear updates and information on events! How to do that is on the OVH web site at w4ovh.net. You will find us on the 146.970 and 443.500 FM repeaters at 8:00 pm every Thursday evening.

Happy St. Patrick's Day!

73 Theresa KG4TVM

Minutes of the Ole Virginia Hams Amateur Radio Club Meeting -- February 20, 2016:

Club President Wayne N7QLK, called the meeting to order at 7:30 pm in the main conference at the Manassas Public Works building.

After the Pledge of Allegiance, all present stated their names and call signs. There were thirty-one OVH members and five guests in attendance.

Presentation: Gordon Miller / NQ4K of the Sterling Park Amateur Radio Club, sponsor of the annual Virginia QSO party, gave a presentation on the Virginia QSO Party which will take place in March. Please check out http://www.qsl.net/sterling/VA_QSO_Party/QSOParty.htm for all of the details. There were several rule changes from last year. Also, if you participate, be sure to indicate your club affiliation.

Minutes: The January minutes went out in the club Newsletter, motion to accept the minutes and the motion passed. There was a correction for the minutes and the newsletter. The email address for Andy / KJ4MTP should be corrected to be: Andy@Gamponia.com

Treasurer's report – Terry / KC4DV gave the financial report. Motion to accept the financial report from Wayne N7QLK, with a second from Al WB4BHB. The motion passed. Terry will be giving the budget report at the next meeting.

Membership: Luther / WA3FMO read in three new prospective members: Ken Aldridge / K1KDA, Cat Demsko / KM4PBD and Jim Gleason / WE4JJ. They will be presented for a voted at next month's meeting. Harry Lippy / KC9TXL, Roberto Maldonado / KM4RIE and Harris Marwood / KL7RW who were read in last month, were each voted in as new members.

ARES: The Marine Corps Marathon ("MCM") 17.5 is coming up in March. There will be a training session in March on the 21st. Please refer to http://pwcares.org

Repeaters at Mt Pone. George / K4GVT reported that work relating to the repeater controller still needs to be finished. Recent antenna work has improved the coverage from Mt. Pone. More work is also needed for the repeaters at NOVEC, including the D-Star repeaters there which have no Internet connection. No specific timetable yet for completing the work.

Training: Mark / WA4KFZ reported that last Monday he led another "Now What" class which focused on the subject of antennas. Good attendance. The next "Now What" class is scheduled for March 13th. Mark / WA4KFZ is also planning to give another Technician licensing class in April and May, details to be announced shortly. Wayne / K7QLK mentioned that he had been talking with some CERT representatives who may wish to try to get Technician ham licenses.

Scholarship: Kristin was not present, so no report, club officers will follow up with her.

Manassas Hamfest: Terry / KC4DV reported that the next planning meeting will be Wednesday, March 1st, the place and time to be announced on the email reflector. Everything is in good shape, but more volunteers are always needed, and all are welcome to attend the

upcoming planning meeting.

Field Day: The next planning meeting will be March after the Hamfest meeting at a date, time and place to be announced.

Sunshine: Happy Valentines Day. Terry WA5NTI, is home, go by for a visit.

Webpage: Paul / W4ZB reported the webpage is working. The web site improvement group had a meeting last week. A preliminary report will be given next month.

JOTA: no report – the event is not until October.

4H: no report, but still expected to participate at the Hamfest.

Old business: The Wires X is activated in digital mode. It will transition to FM in March.

Election results: Ray / KM4EKR was elected as the new President; Jeff / WB6UIE was elected as the new Vice-President, Terry / KC4DV was reelected as Treasurer and Byron / AK4XR as reelected as Secretary.

50-50: Sandy KM4JUS won the 50-50 and donated the \$10.00 back to the club.

New Business: The next Tri-It-Now will be March 26, 2017. Contact Andy@Gamponia.com to sign up to participate.

Thanks to Wayne N7QLK for serving as President this last two years.

Motion to adjourn by Butch / W4HJL, seconded by Al / KB4BHB, motion passed and meeting was adjourned.

Reminders about some upcoming events / calendar dates:

HAMFESTS AND SPECIAL HAM RADIO EVENTS:

Sunday, March 19, 2017 beginning early morning - Winterfest, sponsored by Vienna Wireless, will be held again at the George Mason University campus in Annandale, Virginia. For more information and details, go to: http://viennawireless.net/wp/events/winterfest Please note that as of this writing, the "Flyer" on that web page is still for the 2016 Winterfest and has the 2016 date.

AMRAD meets monthly in McLean, Virginia - meetings usually consist of high level amateur radio related technical presentations on specific topics. Check the http://amrad.org web site for upcoming topics, and exact dates, times and places which have been changing around recently.

HAM RADIO OPERATING CONTEST EVENTS:

Saturday / Sunday, March 18-19, 2017 - The Virginia QSO Party sponsored by the Sterling Park Amateur Radio Club. The is a an annual contest event which is very easy for newcomers to the participate in. See, http://www.qsl.net/sterling/VA_QSO_Party/2017_VQP/2017_VQP_Main.html Each year for many years now, many OVH members have participated and submitted scores; This contest is a lot of fun and very easy to participate in.

The ARRL has a Contest web page at its web site, but a much more comprehensive, up-to-date, and long range planning contesting calendar with links to the rules for the various events is maintained by WA7BNM at http://www.hornucopia.com/contestcal If you get the radio contesting bug or just want to find out what and how much is going on, that is a good place to look!

PUBLIC SERVICE / ARES EVENTS

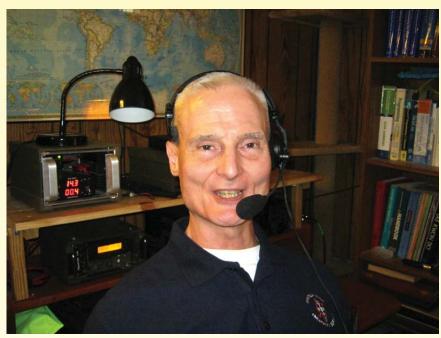
Sunday, March 26, 2017 - early morning. The OVH is going to provide communications assistance during the Tune-up Tri, MiniTri event. Radio operators needed! Contact Andy / KJ4MTP at andy@gamponia.com for more information.

Always check the online Calendar by David / KG4GIY at http://www.pwcares.org for the latest updates. David maintains a comprehensive calendar for upcoming events at that web site. Complete direct contact information for David appears on page 2 of this Newsletter.

VP's Corner - Jeff Fuller WB6UIE

I'm honored to have been elected OVH's Vice President and I look forward to working with you and the other officers and directors in club activities and in the recruiting of new members.

Like many of us, my interest in ham radio began when I was a youngster. In my case, that was over fifty years ago in junior high school. After passing our Novice exams which included a 5 wpm Morse code test, a couple of us pooled our very limited funds and managed to buy a World War II surplus ARC-5 receiver and enough parts to assemble a power supply and a 6L6 (vacuum tube) crystal oscillator. The total cost for these items was probably under \$20



but that was a lot of money back then. I can still remember the smell of the solder melting as we carefully added each component. Antenna? Well, that was sort of a long wire - made from as much lamp cord as we could afford from Sears at four cents a foot. We considered the lamp cord a good deal because it easily split down the middle and we get twice the original length by connecting the two ends together. But most of all, I remember the thrill of my very first contact using Morse Code. All the way from California to Idaho on 40 meters using equipment I'd helped build. What excitement.

Several years later I envisioned plans for college and work in what would eventually become Silicon Valley. Uncle Sam, however, changed them with the best recruiting ad I'd ever seen. It was right on the front page of the newspaper and consisted of my birthday with the number eleven next to it. That led to a career in the military, followed by a return to school on the GI Bill and a second career in the wireless industry. There were many rewarding experiences, but not much time for ham radio.

So ... here I am in my second childhood (retirement) and enjoying a return to ham radio. In some ways, I feel a bit like a mole poking his head out into the sunlight for the first time. Where did all the World War II surplus stuff go and what are these funky things linking repeaters via the Internet? It's been a steep learning curve at times, but never fear - I'm trainable (at least that's what WiFE says). I look forward to working with each of you in club activities as well as recruiting new hams and helping them share the same excitement we all felt when we made our first contact.

Two Meter FM Aeronautical Mobile Operations on February 24, 2017

On February 24, 2017 afternoon, Byron / AK4XR, a non-current private pilot, took up an offer from Paul / W4ZB to go flying in a P210N aircraft and operate aeronautical mobile on 2 meters FM while aloft. The flight was flown as a round robin from KHEF (Manassas Airport) up to KACY (Atlantic City) and then return by a slightly more southerly routing, most of the enroute phases was flown at an altitudes of 6,500 or 7,500 feet.

Because the line of sight range was nearly 100 miles even at those relatively low altitudes, no problems making contacts were expected. Connectors and cables were used so that the antenna input/output on Byron's handheld 2 Meter FM transceiver could be connected directly to one of the aircraft's external

VHF comm antennas, but would otherwise be independent of the aircraft electrical and electronic systems. The basic plan was

to make calls to 2 M repeaters along the general route to make contacts; to help do that, a list of repeaters with frequencies and PL tone codes was compiled and pre-

programmed into Bryon's transceiver, power output set to 5 watts



departure from KHEF, Byron was so preoccupied and focused observing airplane / flight matters (as a



Right after the

previously active pilot) that he did not make any radio calls. However, after a short while at 150 knots (175 mph) as we were climbing out over the Maryland eastern shore, Byron began calling and bringing up repeaters, but he was unable to contact anyone through a repeater. A short while later as we were crossing into Delaware he decided to call CQ on the 146.52 MHz FM calling frequency. A very different result! After a few calls, Byron suddenly had a big grin: a bunch of different stations were all calling back to him at the same time. He was advising callers his position was at 7,500 feet up in the air but he didn't quite know where he was above the cloud deck. [Several panel instruments and displays gave the precise position.]

I told him to look out his window, straight down, because - on his first contact - we were right over Dover AFB and part of its runway could be seen below through a break in the clouds. Over the next 40 minutes or so, Bryon made about 15 more

contacts with stations in Delaware, New Jersey, Pennsylvania and Maryland. By then we had turned around and were headed back towards Manassas. The experience was somewhat like being a rare HF dx station on the receiving end of a pile-up! Next time: better planning; use pile-up handling to spread the callers out, systematic logging with position at QSO time (a logger to help?); also try 2M SSB and 432 SSB / FM. With some practice, we could try for a new VA QSO Party mobile record in 2018:







Web Site Improvement Committee Work Update And Details

The February 2017 OVH Newsletter (at page 7) contains a short article about the work of the OVH's Web Site Improvement Committee. The article provides references to historical material about the OVH's web site for full context and also requested that all OVH members who intended to be or thought they might be future content providers for the OVH's web site(s) to please identify themselves and provide related information about future content which they might be able to provide. Because the subject of web site improvement, with the possible inclusion of links for "social media" has been of interest to the membership generally at regular OVH meetings, the article advised that all incoming correspondence from prospective content providers would be posted on the Members Only web page at W4OVH.NET and would be considered by the web site improvement working group before it next meeting before the upcoming March 2017 OVH regular meeting.

If you have looked at the Members Only web page recently (this is being written on 3/16/2017), you have noticed that no such correspondence has been posted there from any OVH member who has identified himself / herself as a future content provider for the OVH's web site or Internet presence. Why is that? Simply put, no one at all has sent anything in. Is this merely a "getting pen to paper problem" for truly interested members who really will be future content providers or its that wishful thinking? Can't tell, but the fact that no one at all has been able yet to send anything in certainly raises a note of caution for the web site improvement working group. Improvement of the OVH's web site and Internet presence will require both reorganization of the existing content as well as new quality content and consistent updating of content - which is are completely separate issues from the overall "appearance" of the web pages; a superficial appearances will not make up for the presence of poorly organized or out of date content. There is already a lot of good content about the club on the web site but one must dig somewhat to find it. The organization / reorganization issues for the content could be fixed simply with a better menu and index structure, But what about the "new content" itself - where will that come from if not from the members? Answer: the same sources that have been providing it as explained in February's OVH Newsletter.

I encourage all OVH members who have more than a passing interest in the work of the web site improvement working group to look at the Members Only web page - which as of today - has a new hyperlink to some of the working materials / documents of that group to date. There is a lot of content there and a lot of questions and issues are in flux - a further update and report will be forthcoming at the OVH regular meeting on March 20th.

Did Someone Steal Our Name? Has the OVH Been Around Longer Than Them?



Turns out, we are not alone: there is an Ole Virginia Ham Shop in Norfolk, Virginia. They sell Hams - the food type made from pig meat and they say they've been around since 1956.

Deep within in the W4OVH.NET web site is a 1958 group picture of the OVH club members - quite a few individuals - so the OVH likely was around for some time before 1958. Who knows when the OVH started?



Some Possibly Useful or Interesting Information

- 1. Need to do some computer development or create some custom computer based ham shack tools or accessories? Then you should consider RaspberryPi's new model "Zero W" in a very small form factor with built in WLAN and Bluetooth, running a Linux variant, available for about \$10. Irresistible at that price!
- 2. A couple of the OVH old timers mention from time to time having used in their previous lives as high speed government CW operators "One Time Pads." What are they and how do / did they work? To find out, look at Wikipedia "One Time Pad" or the write up about them at http://users.telenet.be/d.rijmenants
 - 3. Ham Nation videos online has a new home at: https://twit.tv/shows/ham-nation Lots of stuff to watch!

REMINDER



Yes, it is that time of year again!!!!! Below is the 2017 Renewal Application.

Please fill out the form below (for database), attach your check and mail to the address below or drop off at a meeting. Be sure to update all information, including your e-mail address, telephone number(s) and nine digit ZIP

MEMBERSHIP RENEWAL APPLICATION "OLE VIRGINIA HAMS AMATEUR RADIO CLUB" for 2017

NAME:	_ CALL SIGN:	
ADDRESS:		
	Call Tale	
	Work Tel:	
	EMAIL:	
	BIRTHDAY:	
ARE YOU PRESENTLY AN ARRL MEMBER? (YARE YOU A VOLUNTEER EXAMINER: (YES/NO MAY YOUR TELEPHONE NOS. BE LISTED IN TWHAT IS YOUR PRESENT LICENSE CLASS? Dues are now \$20.00 per year and payable on Jarmember living at the same mailing address are \$1 undergraduate or lower level [list school attended)	ES/NO) HE "Members Only" OVH ROSTER? (YES/NO) nuary 1, 2017. Dues for each additional family 10.00. Dues for a full time student at the college	
] are \$10.00.		
NAME AND CALL OF FAMILY MEMBERS:	AMOUNT ENCLOSING:	
N	Call	
Name:	Call: Call:	
Return to: Transurar OVH		

Return to: **Treasurer, OVH P.O. Box 1255**

Manassas, VA 20108-1255

NORTHERN VIRGINIA'S LARGEST

lanassas Hamfest



AMATEUR RADIO & MAKER TECHNOLOGY SHOV

An ARRL-Approved HAMFEST Presented By:

The OLE VIRGINIA HAMS Amateur Radio Club, Inc.

(Featuring Youth Lounge Activities for the Youngsters Attending!)



Sunday, June 4, 2017 Prince William County Fairgrounds

Large Outdoor and Covered Pavillion flea market areas, two indoor air-conditioned buildings, several covered buildings and ample parking

10624 Dumfries Road - Route 234 - Manassas, Virginia -- Talk-In Repeaters on 146.97- and 442.200+

INDOOR EXHIBITOR SPACE 8-foot tables: \$30*each with chairs & electricity (\$25 if reserved by May 1st) Setup 2-10 PM Saturday

GENERAL ADMISSION \$10*per person at gate (Age 18 and younger: no charge) (*See web sites for prepayment discounts before 5/15/2017) Gates open at 7 AM

TAILGATING (admission is extra) Outdoor Spaces: \$10*per space Covered Pavillion: \$15 per space (*See web sites for details about online prepayment discounts before 5/15/2017) Gates open at 6 AM

* Online ticket sales and vendor registration at http://manassashamfest.org For our Most Current Vendor Info, Lists and Ticket Sales Visit our Web Pages:

http://manassashamfest.org http://w4ovh.net and

PRI7FS

- Door prizes hourly 9 AM to 1 PM (be present to win)
- Major & Tailgate prizes awarded at 2 PM

INFORMATION

- ARRL Roanoke Division Officers attending
- Virginia Section Manager Forum & other Forums
- 4th Call Area QSL Bureau Representatives
- DXCC QSL Card Checking will be available
- Virginia QSO Party Awards Ceremony
- Check our web pages (below) for the most up-to-date information

ACTIVITIES

- Flea Market & Vendors all day
- VEC License Exams: 8:00 AM 10:30 AM
- "Maker" group technology demonstrations
- ARRL style Youth Lounge programs all day for youngsters - by the OVHARC and 4-H
- Maker Robotics Corral and Demos
- Amateur Radio Satellite Forum
- BroadBand Ham Networks ("BBHN") Forum
- Virginia QSO Party Awards and Forum
- More Forums to be announced, check web sites

http://manassashamfest.org and http://w4ovh.net

Dealer Info from George / K4GVT: vendors@manassashamfest.org **General Info** from Terry / KC4DV: chairman@manassashamfest.org **VE Testing / Exam Information:** vetesting@manassashamfest.org