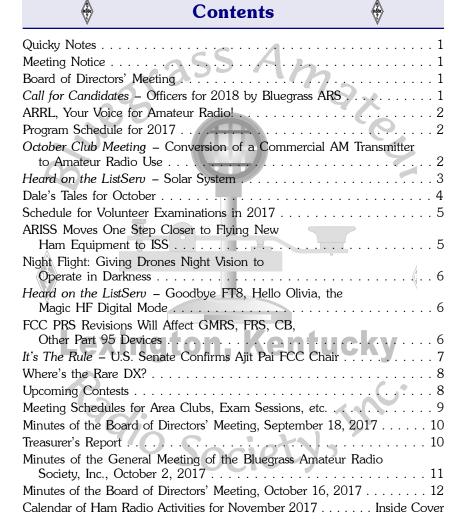


November 2017

Contents



Bluegrass Amateur Radio Society, Inc. Published and Distributed Monthly by the P.O. Box 4411, Lexington, Kentucky 40544-4411 Club Station K4KJQ MARS Station AAV4CAB Glenn E. Welman/KF4NB Web Page: http://www.bluegrassars.org Memorial BBS E-mail: k4kjq@bluegrassars.org 145.010 and 145.090

K4KJO 146 160/ 760 ATV Repeater: KY4ATV Input: 439.250 // Output: 923.250

WA4HBM 147.765/.165

"Ham News" was first published by Bobby Foster, WA4ZSQ, in August, 1972; the parent newsletter, "QUA," was first published in March, 1947

QUICKY NOTES

Accessing the Club's web page: http://www.BluegrassARS.org.

Telephone Number for the Shack (basement of the Red Cross Building): (859) 231-0974.

Subscribe to ListServ: Send an eMail to: bars-request@lsv.uky.edu; in Subject line type Subscribe plus <your call sign>

Post notes to the Club List Serv: <bars@lsv.uky.edu>.

-- THE PROGRAM FOR THE NOVEMBER MEETING . . .

. . . will be a report by **Roger/KJ4YSY** and **Loretta Colvin**, nominating committee for the upcoming election of officer for 2018. See below.

Call for Candidates

-- FOR ALL OFFICER POSITIONS --

See details below.

-- HELP NEEDED --

Bill Fuqua/WA4LAV reported he has a friend who has donated a large number of pieces of radio equipment to the Club. Bill said he has rented a storage unit to put the equipment in since there is a water problem in the basement of his friend's house and the equipment must be moved. Bill said he checked



"When you can't make them see the light, make them feel the heat."

~ Ronald Reagan

with **David Richarson/W9KHZ** to see if he knows of a building we can use for a day to conduct an auction. Maybe in December. Bill showed pictures of some of the equipment. He said he has moved less than half of the equipment so he needs people to help move the remaining pieces. **Smokey Wallace/KE6IVK** suggested we come up with ideas about how best to dispose of the equipment – auction, eBay. . .? More discussion will be held during the general meeting, November 6. Please plan to attend.

QUA/HAMnews

November 2017

Meeting Notice

Bill DeVore/N4DIT.

Chair, Newsletter Committee Bluegrass ARS, Lexington, Kentucky

The regular meeting of the Bluegrass Amateur Radio Society, Inc., will be held November 6, 2017, 7:30 PM, meeting room "B" in the Red Cross Building, 1450 Newtown Pike, Lexington, Kentucky. The program for the meeting will be presented by **Roger/KJ4YSY**, and **Loretta Colvin**. They will present the candidates for office for 2018.

Also during the meeting we will be discussing the very large donation of equipment that has been made, how the equipment will be moved from the person's basement to the storage unit, and how best to dispose of the equipment. **Bill Fuqua/WA4LAV** said there is potentially thousands of dollars worth of equipment in this donation. Your opinion will be appreciated.

Many, many thanks to **Loretta** and **Roger Colvin/KF4YSY** for spending a number of evenings calling members to ask them if they would put their names on the ballot for officers for 2017. They were successful in convincing a few members, as evidenced by the ballot all members who have paid dues for 2017 will receive in the mail. Be sure to thank Roger and Loretta the next time you see them, or hear Roger on the air.

Do you have a topic you would like a program on or a program you would like to present? Do you have a homebrewed project you have built? Bring it and show it off! Question? Ask it! Maybe your question isn't one about a Club activity or function, maybe you are having a problem getting some newly acquired equipment set up and operating correctly, or you have an antenna with radiation problems. Regardless of your question, problem, or suggestion, bring it to the meeting, someone present will probably have an answer for you.

If you have a program you would like to hear or a topic you would like to present, contact **James Schlesser/WA9MED**, during a Club meeting, or contact him at (757) 478-2186, or e-mail to <wa9med@jschlesser.com>. •

Board of Directors' Meeting

Bill DeVore/N4DIT, Chair, Newsletter Committee Bluegrass ARS, Lexington, Kentucky

The Board of Directors of the Bluegrass Amateur Radio Society, Inc., will meet Monday, November 20, 2017, at 7:30 PM in the Education Center, basement of the Red Cross Building, 1450 Newtown Pike, Lexington.

Board meetings offer you the members, or anyone having an interest in amateur radio or public service, a forum to present your ideas, requests, congratulations or complaints to the officers and committee chairs of the Club. We always are in need of persons to share their expertise in a special area or to share an experience or activity by presenting a program at the Club's regular monthly meeting, or to make suggestions for program topics. Anyone wishing to present a program or who has suggestions for programs, should talk to **James Schlesser/WA9MED**, during a Club meeting, or contact him at (757) 478-2186, or e-mail to <wa9med@jschlesser.com>.

Note that we still need volunteers to chair the Contest Committee and the Public Relations and Membership Committee. Contact **Smokey Wallace/KE6IVK** at <ke6ivk@arrl.net> or (859) 402-8208.

To attend the board meeting, enter the Red Cross building through the basement entrance on the left end of the building as you stand facing the front of the building. Follow the stairway down into the basement and into the Education Center adjacent to the Club shack. •

Call for Candidates. . .

Officers for 2018 by Bluegrass ARS

It is time to be thinking about who will be officers of the Bluegrass ARS in 2018. Members in good standing are encouraged to step forward and place your name into consideration

for one of the Club's offices for the coming year. Our present president, **Smokey Wallace/KE6IVK**, named the Nominating Committee during the October club meeting and the committee's responsibility was performed by members **Roger/KJ4YSY** and **Loretta Colvin** who encouraged all members to place their names on the 2018 ballot.

This year, as in past years, all offices have been served well by the present officers, but we would like to have two or more candidates for each office.

Please consider taking your turn as an officer or serving on the nominating committee. This can be done by attending the November Club meeting or calling Roger at 859-494-6268. •

ARRL, Your Voice for Amateur Radio!

Steve Morgan/W4NHO

Kentucky Section Manager Owensboro, KY 42301 Cell: 270-926-4451 w4nho@arrl.net October 9, 2017

Ladies and Gentlemen:

I will be attending a two-day workshop later this week in Newington along with eight or nine other SMs from across the

October Club Meeting

Conversion of a Commercial AM Transmitter to Amateur Radio Use

The general meeting of the Bluegrass Amateur Radio Society, Inc., was held October 2, 2017, 7:30 PM, meeting room "B" in the Red Cross Building, 1450 Newtown Pike, Lexington, Kentucky. The program was presented by **Doug Ponder/K4PVN**, Berea, Kentucky, and **Rich McKinney/WB4VFN**, Richmond, Kentucky. They presented a very interesting program about a very large, old, AM transmitter Richard had rescued from the broadcast station at Renfro Valley and put on the air from his home on the



Amateur Radio bands (mostly 160 meters). The transmitter had been used for many years to broadcast programs from the site of the Renfro Valley Barn Dance, and other programming. (I can remember listening to the Barn Dance on Saturday nights back in the 50s from my home in northwestern Ohio. A long way from the Barn Dance in central Kentucky. They were probably using the same transmitter.)

Rich showed a number of photographs he had taken for the inside of the cabinet clearly showing the large filter transformer, tubes, etc., he had installed to achieve two kilowatts of output, and to improve the output signal. He said he had worked 13 states, with Arizona being the furtherest distance from central Kentucky.

U.S. Currently there is a trend of folks not just in KY but across the nation letting their membership with the League lapse. At the

moment maybe a few more lapse than join in a month. I truly welcome all former and current members.

Program Schedule for 2017

James Schlesser/WA9MED, Chair, Program Committee Bluegrass ARS, Lexington, Kentucky

The following programs are scheduled for 2017. Your input and suggestions for programs for 2017 are needed. Call **James Schlesser/WA9MED** at (757) 402-8208, or e-mail to <wa9med@jschlesser.com>.

Month	Торіс	Presenter(s)	Comments
√ January	Open		
√ February	"BOB" David Richardson	n/W9KHZ Personal Emergend	y Preparedness
✓March	Severe Weather Identification and R	Reporting tentatively by Joe Sulliv	van/KC7ITG of the NWS, Louisville
√ April	Stephen Bishop a	and Tim Brandewie Lexing	ton/Fayette Emergency Management
✓ May	Chemical Weapons Removal – Blu	uegrass Ordinance Depot, Madiso	n County, Kentucky.
√ June	"Field Day" Smokey Wallace/	KE6IVK Site location, preparate	tion, operating stations, etc.
√ July	"Weatherproofing Cables, Coax, a	and Assemblies" James Schless	ser/WA9MED
✓ August	Hamfest Dave Richardson/	W9KHZ and Fest Committee	Location, preparation, tickets, tables, work crews, etc.
✓ September	Annual Family Picnic Fun, Food	d, Conversation Picnic Shelte	r #2, Shillito Park, Lexington
√ October	Conversion of Commercial AM Tro	ansmitters to Amateur Radio Use	Doug Ponder/K4PVN, Berea, Kentucky
November	Report of Nominating Committee	Roger/KJ4YSY and Loret	ta Colvin Ballot of Officers for 2018
December	Annual Auction J.B. Young w	vill serve as auctioneer to see if	he can get you some cash - Bring your items

If you are one of those who has let their membership lapse or considering it please give it some reconsideration. I have contacted a few via Radiogram. I would appreciate knowing the main reason(s) why you have let your membership lapse. Sometime we get busy and forget to renew.

Now would be a great time to renew and support the efforts of ARRL in KY and many other areas as well.

ARRL has been sending "go kits" to many of the areas recently hard hit by hurricanes. Contributing to relief efforts on many different fronts. We need your support to continue in many different areas, whether it emergency response, regulator response with the FCC, maybe interference, adding that new band (630 and 2200 meters) or congressional leadership, i.e., recently the parity act, i.e., \$1534 and HR555.

If there is a problem with policy, services from the League I would like to know. As Section Manager, I am here to be your voice. However, if I do not know about a concern, I cannot address it. Furthermore, if there are things that the ARRL is doing that you like, I would appreciate knowing that as well.

Therefore, I would certainly appreciate hearing from you one way or another. Please understand, that I do not make policy for the League. You the member, drives what the League is all about, especially our affiliated clubs.

Affiliated clubs will be getting a chance in the near future to sound off what you are doing as a club in upcoming Section News issues.

Thank you for your time and effort. I hope to hear from as many of you as possible.

Let your voice be heard! Thanks, ◆

Heard on the ListServ

Solar System

Ernie Pridemore/W4HLN w4hln@WINDSTREAM.NET Saturday, October 14, 2017

Wanted to make it [to the Swop Meet, Saturday, October 14] but got tied up with the 2 year old Grandson!...Had a blast! Hope you guys did ok...Next swap meet I'll have a 50 amp power supply from Astron (RS-50M) and some solar charge controllers rated for 22 volts and 7 amps...maybe a few other odds and ends. Just put in a rack of solar panels low in the back yard here facing south and have enough to run the station/Computer...lights in the house

Have you been wanting to get on the air but don't have a rig? How about operating in a HF DX or VHF/UHF contest? The shack is open most Saturday mornings, 9:00 AM until Noon, so come on out! Arrangements can be made for other times. Telephone the shack at 231-0974.

and a few other things too when I finish going LED with everything.

Got 4 EGC2 Golf cart batteries and a pair of 29 series deep cycle batteries.....Building a set of dedicated Volt Amp meters so I don't have to mess with the multi-meter all the time. I split the rack of 6 Solar cells into two sets of 300 Watts (14.6 volts and 15.9 Amps in full sun each), and run two new type super efficient solar charge controllers. I run a twin run of #4 AWG wire buried in conduit from the panels 46 feet away to keep the loss under 1%. It gets EXPENSIVE! LOL! Next comes a on-demand natural gas water heater so I can run my water heating as well from solar panels (1/4 amp or less at 115 volts).

Looking into a couple more racks of solar panels in the near future. I'll be keeping this setup the way it is and may throw the next couple (1200 to 1800) Watts on the house power(grid tied) and roof mount em and have another rack or two in the back yard (1200 to 1800 Watts grid tied).

Biggest thing I learned going solar is buying cheap components ain't always the way to go. . .Buying complete turnkey systems will cost you the same if you catch those on sale! LOOK Around! READ! Renology. . .Grape Solar. . .Sunpower and many more companies make quality stuff! If you hire a local company to do a complete system for you. . .a \$1000 system direct from Renology will cost you \$6000! It ain't that hard!

Ernie/W4HLN

Bill Cotter/N4LG

bcotter@qx.net Sunday, October 15, 2017

I put up a small solar system in early 2013 to test the concepts of producing power from the sun, and trying to figure out the benefits and cost, plus when it would pay for itself. After four years, I figured out that any solar system would probably never pay for itself (in my lifetime) producing energy savings, *BUT* when the power drops for days at my QTH, cost is no longer an issue. Keeping the furnace fan, refrigerator and lights on are the end goal.

The system consists of twelve 12 VDC solar panels wired as three parallel banks of

four series connected panels – nominal output is 48 VDC. Covered with snow on a winter day at dusk, the panels produce 23 VDC. Cleared of snow and in full daylight they produce 96 VDC at 2.5 A maximum. I use #12 wire to get to the house from the panels 50 feet away. The higher the panel voltage, the lower the I2R losses in cable.

The charge controller is a Tracer MPPT type, there are two 100 AH AGM batteries, and a 600 W PowerBright crystal-controlled pure sine-wave inverter. I run the modern gear in my shack off the 12 VDC system, as well as charging phones, iPad and laptops. The monitoring meters are the FREE Harbor Freight digital multimeters. Don't forget to shut them off when done measuring!

Tracer 130 W/260 W MPPT charge controller 100 VDC max input: .

BatteryPlus 100 AH AGM batteries: https://www.batteriesplus.com/battery/sla-sealed-lead-acid/duracell-ultra/12/wkdc12=100p.

600 W PowerBright Inverter: https://www.ebay.com/i/112480181067? chn=ps&dispItem=1>.

Recommendation:

When the time comes to upgrade the system I'll use an array of modern 100-150 W solar panels, 48 VDC battery string and charge controller, and 48 VDC inverter (RFI quiet this time). And, a separate controller for 12 VDC operated equipment.

73 Bill/N4LG

Richard Marshall

rmk@marshall.net Sunday, October 15, 2017

Awesome Bill... you need to make this available. We need to get the K4HH site available to you so you can update stuff like this. I'll make another effort. Those people are so hard to deal with. Wish I had made the swap meet, but was committed elsewhere.

Rich/WR4U

Ernie Pridemore/W4HLN <w4hln@WINDSTREAM.NET> Sunday, October 15, 2017

I'm not like Bill. . .I'm old and BLIND

"There are many paths to the top of the

~ Harry Milner

mountain, but only one view."

FOLDABLE SOLAR CHARGER

lol! I can't read those little Harbor Freight meters. . . I got in the junk box and built me some volt/amp meters. . .they measure to 100 volts and 50 amps. . .got 2 done and gonna build 2 more tomorrow if I can find a box of shunts I had laying around. Ernie/W4HLN

Daniel Vinson/N4EXW

n4exw@yahoo.com Monday, October 16, 2017

My is a little different setup teaching my son that we can charge his 12v 12a. With a charge rate of 2.8 amp at 13.2v. Takes about three hours.

PowerFilm.

Powerfilm 60w fold panel Powerfilm 21w rollable panel





Dale's Tales for October

Dale Williams/WA8EFK

Director ARRL Great Lakes Division wa8efk@arrl.org

Greetings everyone, welcome to "Dale's Tales" for October 2017.

NEWS: Our ARRL Headquarters staff has been on top of activities to extend communications support to our fellow citizens in the hurricane-damaged areas of the Caribbean. You have read of the Red Cross asking for 50 ham radio volunteers to serve in Puerto Rico for three weeks, you have read of the multiple packages of Ham-Aid equipment prepared and shipped to assist in these devastated areas. Note especially Tom's Comments:

TOM'S COMMENTS: Comments from our Vice Director Tom Delaney W8WTD

When the first of many disasters hit a few weeks ago, I began thinking about disaster response and what I could say. Having spent many years on planning committees, I was reminded at the time of the saying that we are best prepared for the "last" disaster, meaning that we know what we did last time, and would be more than familiar with what it would take to stage the same response. The problem, of course, is that disasters don't often repeat themselves, or they come with strange twists we haven't seen before.

From what I can tell, in the Texas and Florida disasters, a different kind of communication was taking place. Devastating as the hurricanes were, they didn't affect communications infrastructure so much, and people were using "social media" in all sorts of new ways. So the hams had to adapt, and

for many, the usual two-meter FM communications as the only local communications was not the case. They responded, but didn't seem to be as needed.

Up here in the Division, we're not likely to see those kinds of disasters. While we need to be ready for anything, we need to learn from what else has gone on. Those of us who have been involved in disaster communications know what needs to be done, but it is all going to depend on what the needs are. And that's going to change from situation to situation. We need our new technologies, because they'll be helpful. Let's remember that it's not the internet that goes down, it's local access to the internet. So if we have ways to work around that, we will still be able to communicate when others can't.

But now there's Puerto Rico. Back to nothing, and ham radio steps in.

You have probably seen that over 50 hams from around the country volunteered through ARRL at the request of Red Cross to go in and basically set up some ham communications where there are none left. We wish them the best. Many of us would have liked to go, but for various personal reasons, could not volunteer. What's there for us to do?

Well, let's keep the HF frequencies they need clear for them. And if you can spare a few bucks or more, donate to Ham Aid. You'll find a link on the main ARRL web page.

On the one hand, disaster communications is simple. Provide help where needed. In practice, it is often a balance between need and available resources. What can we do to help? If it's not just what we trained for, there may still be something else we're good at that we can bring to help. There's an SET coming up. Practice is essential. We may not be doing the same things in a real disaster, but if we've practiced, we know our gear works and we can figure out the needs of the moment.

73, Tom Delaney/W8WTD Vice Director, Great Lakes Division

What more can be said? Ham radio is doing what we do so very well. We can get on the air when other systems fail, because we know how to do it! Our Field Day and DX-peditioning experiences pay off. Our ARES, NTS, QRP, DX, and Work-itthrough-the-doggone-QRM operating experience pay off. Our technical expertise and our hang-the-antenna in the wind, snow, rain or sleet, experiences pay off.

This emergency is ongoing, and will remain so for months to come. People are hurting and they need our help. Please

Schedule for Volunteer Examinations in 2017

Harry Sparks/KN4S,

Bluegrass Volunteer Examiners, kn4s@kn4s.com

The exam schedule for 2017 follows nearly the same format as past years. The scheduling is for Lexington/Fayette County and the sessions in Danville, Georgetown, Winchester, and Richmond hamfest. The Bluegrass Amateur Radio Society-sponsored ARRL exams will continue to be held on the second Saturday of the second month of each quarter (except the August Session will be the date of the Central Kentucky ARRL Hamfest in Lexington), and the WCARS sessions remain as they were last year, Tuesday evenings quarterly.

Test Session Locations

Lexington*	Winchester**	Danville	Georgetown
Red Cross Building	Clark County EOC	Danville Red Cross	Georgetown Police Dept
1450 Newtown Pike	200 Maryland Ave	3rd St Methodist Church	550 Bourbon Street
Lexington KY 40509	Winchester KY 40391	S. 3rd Street	Georgetown KY 40324
		Danville KY 40442	

* August, Bluegrass ARS Hamfest, Eastland Shopping Center, Lexington, Kentucky ** September, Richmond Hamfest, Madison County Fairgrounds, Richmond, Kentucky

Contact Information

ARRL VEC: Lexington and BARS ARRL Hamfest test sessions – Liaison Fernie

Williams/KE4MAI, ke4mai@arrl.net, 859-652-3393

(www.bluegrassars.org)

Danville - Liaison John Wulf/K4FT, johnk4ft@gmail.com, 563-505-

0339, Wilderness Road Amateur Radio Club

Georgetown - Liaison Ron Malinowski/WX4GPS,

wx4gps@arrl.net, 502-542-8252

WCARS VEC: Lexington - Liaison Margueritte Williams/KE4MAJ,

ke4maj@arrl.net, 859-489-6274 (www.bluegrassars.org)

W5YI VEC: Winchester - Liaison Darrell Epperson/AC4YD,

eppersond@aol.com, 859-771-1834

TEST SESSION FEE: ARRL - \$15; WCARS - \$10; W5YI - \$14

Date and Time		VEC	Location
Thursday, November 2, 2017	06:30 PM	ARRL	Georgetown
Saturday, November 11, 2017	10:00 AM	ARRL	Lexington
Saturday. December 9, 2017	10:00 AM	ARRL	Georgetown
Tuesday, December 12, 2017	7:00 PM	WCARS	Lexington

consider what you can do; in a big way or a small way, we need to step up to assisting. If you cannot help via ham radio, perhaps you can assist financially, or through a material donation. Speak with your community officials, Red Cross, Salvation Army or similar civic organization, but please lend a hand.

This is a proud moment for amateur radio, one not to be overlooked. These major disasters will cause many of us to renew our interests in emergency communications and renew our skills in that area. And, surely as I sit here, in three years, much of the current interest will have waned because we soon forget the details of what happened. You have seen it happen, I have seen it happen, we humans trend towards complacency. Yet we must change our thinking, we need to remember the lessons learned and prepare ourselves

for the times we will be needed again. Let's all look ahead and practice with our ARES groups, train for disaster deployment, prepare for dealing with potential threats and stay at it. Look at our Simulated Emergency Test After-Action-Reviews (you do review, don't you?) and refine all of our methods and procedures. We need to reduce, actually, we need to eliminate our complacency and remember, each of us could face a disaster as serious as those faced today by our friends in Puerto Rico, Dominica, and the U.S. Virgin Islands.

Hamfesting

Of special note to all of our Hamfest chairpersons: be certain to open and examine the package your group receives from ARRL Headquarters. It is addressed to you, be sure you open it as soon as it is received.

We have approximately 65 ARRL

Andy Rooney wrote that . . .

... "Elephants and grandchildren never forget."

hamfests each year in the Division. I do encourage each Hamfest chair to register early for ARRL Sanctioning. Be sure to invite your ARRL Officials as soon as your date is set. Here is the one remaining Great Lakes Division ARRL Sanctioned Hamfest [within reasonable driving distance from central Kentucky] scheduled for the remainder of 2017. This swap has received sanctioning approval from ARRL HQ at the time of this publication.

11/4/17 Grant ARC Hamfest, Georgetown, OH

Be sure to check your Section's news pages for the latest local happenings, club, and net information.

73, Let's be radio-active. **Dale Williams WA8EFK**, Director

Great Lakes Division ◆

ARISS Moves One Step Closer to Flying New Ham Equipment to ISS

"The ARRL Letter," **Rick Lindquist/WW1ME**, Editor October 5, 2017

Amateur Radio on the International Space Station (ARISS) International Chair Frank Bauer, KA3HDO, announced this week that the program has submitted its Interoperable Radio System (IORS) flightsafety data package to NASA for review. ARISS has been developing the IORS to replace most of the Amateur Radio hardware now on the space station. It is called "interoperable" because it's designed to operate anywhere on the ISS. A NASA flight-safety review in about a month is the next step. Bauer said he was highlighting the accomplishment, because all work on the safety data submission was developed exclusively by ARISS volunteers, rather than NASA or other contractors, as had been done in the past. It also meant a substantial saving to ARISS, which has become more reliant on donations in recent years.

"This is a very major IORS milestone," Bauer said. "We cannot get [the new equipment] to orbit without successfully completing the safety review process and getting our hardware certified for flight."

Bauer said having the work done by volunteers will shorten the timeline involved in getting the new Amateur Radio hardware to the ISS.

He explained that the material turned in for NASA Human Spaceflight Safety Certification covers the first three phases of a four-phase process. The initial steps in the process are aimed at ensuring that NASA understands the design, demonstrating that ARISS understands the potential hazards that the new hardware systems could introduce, and how it has mitigated or prevented them. The final phase will be complete when ARISS has finished all testing and NASA deems the hardware flight worthy. ARISS is hoping that will happen next spring.

"We will remove the 3 W Ericsson handheld radio system, initially certified for flight in 1999, and the packet module --both of which have recently had issues," Bauer said, and install a brand-new, specially modified 25 W JVC Kenwood TM-D710GA radio to enable a multitude of new or improved capabilities on the ISS, including voice repeater and better APRS operations."

A key development, Bauer explained, is the multi-voltage power supply (MVPS), which interfaces with multiple electrical outlet connector types on the station and provides a range of power-output capabilities for current and future ARISS operations and Amateur Radio experiments.

ARISS invites contributions to help cover the expenses of its work. All donations go directly to ARISS. +

Night Flight: Giving Drones Night Vision to Operate in Darkness

Chantelle Dubois "All About Circuits" September 29, 2017

Current FAA rules restrict drone flight to certain times and light levels. How can drone operators work with these regulations to fly at night? What methods are available for giving drones better visibility in the dark?

Currently, under FAA rules, drones can only be operated during daytime hours, and within "civil twilight" hours, typically 30 minutes before or after the sun sets. For commercial companies operating drones, this can be especially restrictive.

Drones are used for search and rescue operations, filming events, capturing news footage, or for security purposes. The good "You have to be an antique to appreciate them."

~ Faye Madigan Lange

news is that it is possible to receive a "night waiver" (§ 107.29) from the FAA if you can prove that your drone, in addition to adhering to all the other normal regulations, has at least a three nautical mile radius of visibility.

There are many ways to approach how to overcome this requirement. Here are a few methods that are being used or are currently under development.

High-Intensity Lighting

The most obvious solution for night visibility is to use a lighting system—sort of the same way headlights are used on cars. There are many different approaches to this method: many commercial solutions are already available to add spotlights onto your drone, and there are also ways to develop your own DIY solution as well.

Interestingly, there are companies that are pushing the boundary by adding 1000 Watt lighting systems to their drones. This apparently can achieve 0.25 million lumens! Intense lighting like this could be useful for security, filming, and search and rescue.

Others, taking the direct and less complicated approach, are just attaching flashlights to their drones.

The most important part of this approach is that the three nautical mile radius limitation is still met in varied conditions in worst-case scenarios.

Infrared Cameras

In 2015, drone company DJI and infrared imaging company FLIR partnered to develop a thermal camera imaging solution for drone vision and navigation.

Thermal cameras detect infrared waves being emitted by objects—warming objects will appear red while cold objects will appear black. So, even in the absence of visible light, objects can be detected. While these cameras are quite expensive for the hobbyist, they can be excellent solutions for commercial operators.

However, it's also possible to build your own camera to take images in the infrared light spectrum using an inexpensive digital camera, an infrared spotlight, and some time. By taking the camera apart, removing the IR filter, adding a visible light filter, and installing it onto your drone with an IR spotlight (keeping in mind any payload weight limitations your drone might have), you can make an IR vision-capable drone. The best part is that the IR spotlight isn't visible to human eyes.

A Novel Approach

Researchers in Switzerland have published a paper on a navigation system that can operate in low-light conditions with high-dynamic range and without motion-blur problems. This is achieved by combining the best attributes of traditional cameras and dynamic vision sensors (DVS).

Cameras operate by sending frame-byframe images, where a DVS only detects and transmits the changes that occur in a scene at the pixel-level. If using only a traditional camera, issues arise with blurring if a scene is moving too quickly.

With a DVS, not enough information is provided if the scene isn't moving at all. The team combined the traditional camera's intensity frames with the DVS's inertial frames, which resulted in a hybrid solution that can operate in daylight conditions or low-light conditions at fast speeds—or when not in motion at all.

Being able to operate drones 24-hours is a huge advantage and can open up even more novel uses for them. •

Heard on the ListServ

Goodbye FT8, Hello Olivia, The Magic HF Digital Mode

Pete Kragh/K2UPD

k2upd@aol.com Wednesday, October 25, 2017

Anyone using Olivia? Comments? http://qrznow.com/goodbye-ft8-hello-olivia-the-magic-hf-digital-mode/

Bob Lunsford/KK5R

Wednesday, October 25, 2017

Here is my opinion and note that it's just an opinion.

I prefer to ragchew and it seems that Olivia provides that while FT-8 appears mostly for wallpaper collectors. It is, however, nice to know you have contacted stations that you'd never otherwise have been able to do so but, again for me, that's not enough.

I'd like to try both of them and then see which one is the best "for me" but I still think ragchewing is where it's at. Problem now is finding how to do it. I have a RigExpert "box" so that would not be such a problem, but there must be either some interfacing that is required plus some software. I have heard Olivia, I think that was what it was, and it rings with an exotic musical tone that is fascinating. Or, maybe it was FT-8...

Chris Gay/KU4A

ku4a@yahoo.com Wednesday, October 25, 2017

Olivia has been around for years. The biggest problem I saw was finding some-body to work. Of course, there are chat rooms around where you can set up a schedule.

Bob Lunsford/KK5R

Wednesday, October 25, 2017

Here is qrz.com's forum on this topic. Note that the comments are more interesting than the article, in my opinion...

<http://forums.qrz.com/
index.php?threads/goodbye-ft8-helloolivia-the-magic-digital-mode-forhf.585617/>

Pete KraghK2UPD

k2upd@aol.com Thursday, October 26, 2017, Thanks, Bob, I didn't know about the forum.

Bob Lunsford/KK5R

Thursday, October 26, 2017

I do not have a dog in that fight in the forum because I do not use any of those modes. However, it is very interesting to me and I may try "something" later. Also, the forum comments, if read from beginning to end, provide some good insight into the various modes and they come from people who apparently use them.

"What you have spent years building, someone can destroy overnight. Build anyway."

~ Mother Theresa

Jim Schings/AI4SR

sracing@mindsppring.com Thursday, October 26, 2017

I have used them all. Comparing Olivia and FT-8 are like comparing Pickup trucks and Indy cars or AM and CW. There is no comparison. Neither is better than the other except for some particular purpose. You certainly can't "ragchew" with FT-8 and won't make as many low power DX contacts with Olivia. IMO, FT-8 (or JT modes) are great just to give you bragging rights or moon bounce, etc. But other than that I would rather watch paint dry. However, EVERY ham should certainly try them both once, just to expand the skills. You may enjoy them...

Malcolm Walters chuckles.mookie@GMAIL.COM

Thursday, October 26, 2017

I like FT8 but prefer JT65 with my antenna setup currently.

Bob Lunsford/KK5R

Thursday, October 26, 2017

I think your assessment is right on the money. For wallpaper collectors and those who want to test antennas or low power, FT8 seems to be the ticket. For having a conversation, some other mode may be

more in order except that they may not be as good with really low power. Some idea that you are not the only one in the world on that mode at that particular time is a factor but, as you say, they all have their own area of usefulness and can provide enjoyment. Same as some hams love mobile operation and prefer to only use this kind of operation but there are others who do not think this way and appreciate more sitting in their armchair and working the world instead of taking the a repeater.

I sometimes tell CBers that there is a place for CB. For example, if I have a flat tire or need some gasoline on the road, I'd much more rather talk to some person 5-10 miles away than some ham in Sweden. There is a place for any mode and operation, even CB (if that's all you have...).

As I said, the forum comments provide a lot of good information but some of it is more opinion than based on fact. Those who know the ins and outs of math and algorithms seem to know a lot about it but I'm reminded of the old CW decoding machines like made by Microlog that had speed tracking that would miss two or three characters when the CW speed was changed and then would change the tracking clock to correspond to the CW character dit-dah relationship. Knowing how that system was designed goes a long way in knowing how the "clock" question is defined in digital modes. Strange as it may seem, Magnavox was the pioneer in this clocking/synchronizing scheme and it was used in satellite command encoding and decoding. •



It's the Rule

U.S. Senate Confirms Ajit Pai FCC Chair

"The ARRL Letter,"
Rick Lindquist/WW1ME, Editor:
October 5, 2017

On October 2 the U.S. Senate confirmed FCC Chairman **Ajit Pai** for a second term on the Commission. Pai would have had to leave the FCC at the end of the year if he had not been reconfirmed.

"I am deeply grateful to the U.S. Senate for confirming my nomination to serve a second term at the FCC and to President Trump for submitting that nomination to the Senate," Pai said in a statement. "Since January, the Commission has focused on bridging the digital divide, promoting innovation, protecting consum-

ers and public safety, and making the FCC more open and transparent. With today's vote, I look forward to continuing to work with my colleagues to advance these criti-



cal priorities in the time to come."

President Donald Trump had nominated Pai for a new term in January; his previous term as a commissioner had expired on July 1, 2016, and his new term is retroactive to that date. FCC rules permitted him to remain until the end of 2016. The final Senate confirmation vote tally was 52-41.

Pai has primarily drawn fire for his opposition to so-called "net neutrality" rules. All five members of the FCC must be confirmed by the Senate, but the president chooses which will serve as the chair.

Where's the Rare DX?

"OPDX Bulletin 1337" October 30, 2017 http://www.papays.com/opdx1337.html

AFGHANISTAN (T6) – Salvatore/IZ1BWB is now signing T6/IZ1CCK from Herat til Dec mainly on 20m using CW and SSB. QSL via IZ1BWB, direct or by the Buro. ASHMORE REEF (OC-216) (VK9) – Ops Mike/AB5EB, Mike/AD5A, and Craig/VK5CE will be active as VK9AR from Ashmore Reef Nov 7-10 on 40-15m. QSL via VK5CW, direct or by the Buro or ClubLog's OQRS. https://ashmorereef.wordpress.com

BELIZE (V3) – Robert/DL7VOA and his XYL will sign the special call sign V34AO Nov 18-30 mainly CW during the local evening and night hours (maybe some SSB, no digital). Robert will join the CQWW DX CW Contest (Nov 25-26). All info at http://www.qrz.com/db/dl7voa. QSL V34AO via DL7VOA by the Buro or direct.

BONAIRE (PJ4) (SA-006) – Ops Eric/K9ES and Charles/AD4ES will sign K9ES/PJ4 and AD4ES/PJ4, respectively, Nov 21-28 on all bands. QSL both via their home CBAs. Both operators will operate in the CQWW DX CW Contest: Eric/K9ES will sign PJ4E as a 80m entry, and Charles/AD4ES will sign PJ4I as a 20m entry. QSL PJ4I and PJ4E via LoTW.

DJIBOUTI (J28) – F1TMY will sign J28PJ for 3 years on 160-6m. QSL via F1TMY. EAST MALAYSIA (9M6) – Saty/JE1JKL will sign 9M6NA from Labuan Is (OC-133) during the CQWW DX CW Contest (Nov 25-26). QSL via his home CBA or LoTW. http://jsfc.org/je1jkl/9m6na.html

FRENCH SOUTHERN INDIAN OCEAN TOUR - Gildas/TU5KG is traveling the South Indian Ocean on a fishing boat. He is sailing in both the Kerguelen and Crozet Island regions, and may activate the islands (if he goes ashore) signing FT5XT (Kerguelen) and FT5WQ (Crozet). When at sea he will sign callsign/mm. QSL via F4DXW direct only. View his QSL card on QRZ.com.

GUADELOUPE (FG) (NA-102) – Philippe/F1DUZ will sign FG4KH until Nov 7 on all HF bands and 6m using SSB, Digita (JT65, FT8, Hell), and with 2m/70cm Tropo, TEP and EME on JT65B. QSL via his home CBA, direct or by the Buro. Web sites for EME and TEP info and the logs online are at: 144 MHz: http://fgdxpeditionf1duz. monsite-orange.fr>; 432 MHz: http://fg4kh-eme-70cm. monsite-orange.fr>.

Upcoming Contests

Sean Kutzko/KX9X,

QST, , scroll down, click on "Contest Corral"

Nov 1 KEICC 80-Meter Contest, Phn, www.ukeicc.com Nov 2 NRAU 10-Meter Activity Contest, CW/Digi/Phn, www.nrau.net Nov 4 IPARC Contest, 80-10m, CW, www.iparc.de Nov 4-5 ARRL EME Contest, 50-1296 MHz, CW/Digi/Phn, www.arrl.org/eme-contest Nov 4-5 Ukrainian DX Contest, 160-10m, CW/Phn, www.urdxc.org/rules.php?english Nov 4-6 ARRL Sweepstakes Contest, 160-10m, CW, www.arrl.org/sweepstakes IPARC Contest, SSB, 80-10m, Phn, www.iparc.de Nov 5 Nov 5 EANET Sprint, All Bands, CW/Digi/Phn, www.fediea.org Nov 5 High Speed Club CW Contest, 80-10m, www.highspeedclub.org Nov 7 ARS Spartan Sprint, CW, 80-10m, www,arsqrp.blogspot.com Nov 11-12 WAE DX Contest, RTTY, 80-10m, RS, www.darc.de/der-club/referate/referatconteste/worked-all-europe-dx-contest/en Nov 11-12 10-10 International Fall Contest, 10m, Digi, www.ten-ten.org Nov 11-12 JIDX Phone Contest, 80-10m, Phn, www.jidx.org/jidxrule-e.html Nov 11-12 OK/OM DX Contest, 160-10m, CW, www.okomdx.crk.cz Nov 11-12 SKCC Weekend Sprintathon, 160-6m, CW, www.skccgroup.com Nov 11-12 Kentucku OSO Partu, 160-6m, CW/Digi/Phn, www.wkdxa.com Nov 11-13 CQ-WE Contest, 160m-UHF, CW/Digi/Phn, www.cgwe.cboh.org Nov 13 4 States QRP Group Second Sunday Sprint, 160-10m, CW/Phn, www.4sqrp.com Nov 13 RSGB 80-Meter Autumn Series, Data, www.rsgbcc.org/hf NAQCC CW Sprint CW, 80-20m, www.naqcc.info Nov 16 Nov 17 YO International PSK31 Contest, 80m, Digi, www.yo5crg.ro/Rules.htm Nov 18-19 LZ DX Contest, 80-10m, CW/Phn, www.lzdx.bfra.org/rulesen.html Nov 18-19 All Austrian 160-Meter Contest, CW, www.oevsv.at Nov 18-19 REF 160-Meter Contest, CW, www.concours.r-e-f.org Nov 18 Feld Hell Sprint, 160-6m, Digi, www.sites.google.com/site/feldhellclub Nov 18 RSGB 2nd 1.8 MHz Contest, CW, www.rsgbcc.org/hf Nov 18-20 ARRL Sweepstakes Contest, SSB, 160-10m, www.arrl.org/sweepstakes Nov 19 Homebrew and Oldtime Equipment Party, 80/40m, CW, www.qrpcc.de/ contestrules Nov 20 Run for the Bacon QRP Contest, 160-10m, CW, www.grpcontest.com/pigrun Nov 22 SKCC Sprint, 160-10m, CW, www.skccgroup.com Nov 22 RSGB 80-Meter Autumn Series, SSB, 80m, www.rsgbcc.org/hf

CQ Worldwide DX Contest, CW, 160-10m, www.cqww.com/rules.htm

UKEICC 80-Meter Contest, CW, www.ukeicc.com

RSGB 80-Meter Autumn Series, CW, www.rsgbcc.org/hf +

HONG KONG (VR2Ø) (Special Event)

Nov 25-26

Nov 29

Nov 30

- Hong Kong Radio Sports Assoc (HRSA) members will sign VR2Ø til Jun 30, 2018, to commemorate the 20th anniversary of the Hong Kong Special Administrative Region of the People's Republic of China. https://www.itu.int/dms_pub/itu-t/opb/sp/T-SP-OB.1116-2017-OAS-PDF-E.pdf.

INDONESIA (YE2) – Members of the ORARI Semarang Contesting Team will sign YE2C during the CQWW DX CW Contest Nov 25-26. QSL via LoTW ONLY. http://ye2c.wordpress.com.

KASSA ISLAND (AFRICA) (AF-051) -

Ops Alain/F5OZC and Sebastien/F8DQZ will sign 3XY3D Nov 2-Dec 1on 80-10m using mainly CW. QSL via F5OZC.

MALAWI (7Q) - Members of the EIDX Group will sign 7Q7EI from Lake Malawi Mar 21-Apr 3 on 160-10m using CW, SSB

and RTTY. They plan to enter the CQWW WPX SSB Contest (Mar 24-25) There are four ways to QSL: via MØOXO, direct, or via OQRS (direct or Buro). Log will not be uploaded to LoTW for up to 3 months. http://www.7q7ei.com>

MELLISH REEF (VK9M) (OC-072) –

A group will sign VK9MA Nov 3-16 on 160-10m using CW, SSB and RTTY. QSL via N7QT direct by the Buro, ClubLog's OQRS (STRONGLY RECOMMENDED), LoTW or eQSL. All QSOs will be uploaded to LoTW and eQSL shortly after the operation. https://vk9ma.com

MICRONESIA (V6) - Shu/JA1FMN will sign V63PSK from Weno Is Nov 14-18 on 20-10m using JT65, JT9, FT8 and PSK63. QSL via JA1FMN, by the Buro, direct, eQSL or ClubLog's OQRS.

MUCURA ISLAND (San Bernardo Is-

lands, Colombia) - Nov 21-28 on 80-6m using CW, SSB and RTTY. Watch QRZ.com for info. QSL via EA3BT. They will also use Clublog's OQRS (preferred). NAURU (C2) - Three members of the Yamato Amateur Radio Club will sign their own call signs Nov 8-14: Kuni/JA8VE (C21VE), Mat/JA1JQY (C21JY), and Kaoru/JA3MCA (C21MA). All HF bands from 80-10m using CW, SSB and RTTY. QSL via each operator's home CBA or by the Buro.

NEPAL (9N) - Gerhard/OE3GEA is sign-

ing 9N7GE from Kathmandu on HF (QRNs on 30/17m) using CW. QSL via his home CBA, direct or by the Buro.

SOLOMON ISLANDS (H44) – Bernhard/DL2GAC is signing H44MS from Malaita Is (OC-047) until end of Nov on 160-6m on SSB. QSL via his home CBA. ST. HELENA ISLAND (ZD7) – Bill/GØVDE will sign ZD8VDE operating SSB and some Data (maybe FT8!). Online log will be via ClubLog and QSLs via OQRS. Info at https://www.sthelenadx.com.

TIMOR LESTE (4W) - Thomas/OZ1AA

will sign 4W/OZ1AA from Dili, East Timor (OC-148), til Nov 7 on 40-10m using mainly CW and some FT8. QSL via OZ1ACB, ClubLog's OQRS or LoTW. VANUATU (YJ) – Ops Chris/VK2NYA and Mike/VK2BXE will be active as YJØCA and YJØMB, respectively, from Port Vila, Efate Island (OC-035)Nov 1-7 on 40 and 20m SSB only. QSL via their home CBAs direct.

VIETNAM (3W) - Megumu/JA6QGF is signing 3W9A from Ho Chi Minh City on 17 and 6m SSB. QSL via his home CBA. ◆

Meeting Schedules for Area Clubs, Exam Sessions, etc.

Bill DeVore/N4DIT

Volunteer examinations are held in or near Lexington on a schedule that has tests in central Kentucky every month of the year. Schedules for area sessions are as follows:

The Bluegrass Amateur Radio Society, Inc. (Lexington) – (Fernie Williams/KE4MAI (ARRL – \$15.00) and Margie Williams/KE4MAJ (WCARS– \$10.00)), with Darrell/AC4YD in Winchester and Richmond (W5YI), John/K4FT in Danville (ARRL), and Ron/WX4GPS in Georgetown (ARRL - \$15.00), have a schedule to offer an exam monthly in Lexington/central Kentucky. (See schedules on page 5 of this newsletter). ARRL-sponsored tests are held the second Saturday of the month, 10:00 AM in the Red Cross Building, Meeting Room "B", 1450 Newtown Pike, Lexington (except the August session is the Saturday of the second weekend of the month and is held at the site of the Central Kentucky ARRL Hamfest), and WCARS-sponsored sessions are held the third Tuesday of the scheduled month, 7:00 PM in Meeting Room "A" in the Red Cross Building, 1450 Newtown Pike, Lexington. Contact Margie/KE4MAJ at 859-489-6274 or email to ke4maj@arrl.net. Go to http://www.lexkywcars.org for information.

Winchester (W5YI VEC) – They are located in the Clark County EOC, 200 Maryland Avenue, Winchester, Kentucky. Their 2017 schedule (10:00 AM): Saturday, January, 9, Saturday, April 9, Saturday, July 9, and Saturday, October 8. Contact Liaison Darrell Epperson/AC4YD, eppersond@aol.com, 859-771-1834

Danville (ARRL VEC) – Test sessions are fourth Saturday in January, April, July and October at 10:00 AM. Liaison **John Wulf/K4FT**, johnk4ft@gmail.com, 563-505-0339, Wilderness Road Amateur Radio Club, American Legion Post 46, 45 Spears Lane, Danville, KY 40422 – Repeater 145.310 (100 pl).

Georgetown (ARRL VEC) – Liaison **Ron Malinowski/WX4GPS**, wx4gps@arrl.net, 502-542-8252, Georgetown Police Dept, 550 Bourbon St., Georgetown (for dates see schedule on page 5 of this newsletter).

Radio Theory and Construction Workshop – Each Saturday 1:00-3:00 PM in the Bluegrass ARS Education Center, basement of the Red Cross Building, 1450 Newtown Pike, Lexington. Contact Bill Fuqua/WA4LAV at (859) 272-9523 or wa4lav@arrl.net.

Versailles/Woodford County – The Woodford County Amateur Radio Club meets the first Wednesday of each month at 7:00 PM in the Versailles Fire Station No. 2 on Big Sink Pike. Anyone interested in amateur radio is cordially invited. Also, visit their web site at http://www.ky4wc.org. You may contact Todd Rose/KE4YAH (atrose@windstream.net).

Fayette County ARES Net, Wednesday, 9:00 PM, 147.120 (Tone 141.3) repeater.

Amateur Television and Specialized Communications Net – An informal meeting is held every Sunday evening at 9:00 PM (local time) on the 146.760 (-600 offset) repeater in Lexington.

Kentucky Six-Shooters Net – Wednesday evenings at 8:00 PM six meters FM on 52.525 MHz (vertically polarized). **David Jordan/KI4AWZ** net control; and, Daily Six-Meter FM Ragchew net 7:00-9:00 PM on 52.525 MHz (vertically polarized). **James Peel/KG4VAR** net control.

KY-QRP – Contact **Chris Gay/KU4A**, ku4a@arrl.net. Meetings are the same schedule as Blugrass ARS, first Monday each month, but at 7:00 PM, in Meeting Room "B", second floor of the Red Cross Building, 1450 Newtown Pike, Lexington.

Scott County Amateur Radio and Emergency Service Club (SCARES) – Meetings are the third Saturday each month, 9:00 AM in the Solarium room at Georgetown Community Hospital, 1140 Lexington Road, Georgetown. Check in to their weekly simplex net Tuesdays at 7:00 PM on 146.685 (PL 141.3).

Central Kentucky ARS (Richmond-Berea) – Meet the Third Thursday each month in the Madison County EOC, Richmond, Kentucky, at 7:00 PM. Talk-in on 146.865 (-600, PL-192.8 Hz) and 145.370 (-600, PL-192.8 Hz) repeater for location, directions to meeting site, or other information.

Pioneer ARC (Winchester) - Fourth Tuesday each month, Golden Corral Restaurant at 7:00 PM (eat at 6:00), except March 24 will meet at City Hall (SkyWarn). Talk-in and info on the 145.430 (T-103.5) repeater.

Jessamine Amateur Wireless Society (Nicholasville) – Second Monday each month at 7:00 PM in the St. Joseph/R.J. Corman Ambulatory Care Center, 1250 Keene Road. (U.S. 27 Bypass south to intersection with 169; turn left at the light.) Talk-in and information on the 145.490 (T-123.0).

The Jessamine County ARES Net, Tuesdays at 7:30 PM, 145.490. . .Byron Smith, Sr./KA3WOD EC, byronllx@aol.com.

The Madison County ARES Net meets Monday at:7:00 PM, 146.865 (pl 192.8). Everyone is invited to check in. . . Wilderness Trail Emergency Net, Wednesdays, 8:30 PM, 146.715 (pl 100.0). . .Glenn/KO4OL.

The Southeast Kentucky ARC meet at the Laurel County EOC, 168 Substation St, London. Meetings on odd number months (Jan, Mar, etc.) are the Second Tuesday at 6:00 PM; meetings on even number months (Feb, Apr, etc.) are the Second Saturday at 11:00 AM. Talk-in on 147.180 (PL-74.4) for directions tor other information. District 11 Skywarn Net meets Sundays at 8:00 PM on 146.925 (-PL-79.7) and is linked to 147.180 (PL-74.4) and other repeaters in and close to the area. District 11 ARES Net meets Mondays at 9:00 PM on 146.925 (PL-79.7) and is linked to 147.180 (PL-74.4) and other repeaters in and close to the area.

Please send any changes or corrections to these notices, or notices not listed here, to my attention, **Bill DeVore/N4DIT**, in care of Bluegrass Amateur Radio Society, Inc., PO Box 4411, Lexington, KY 40544-4411, or e-mail to billdit@twc.com.

Minutes of the Board of Directors' Meeting, September 18, 2017*

Recorded and submitted by: **Bruce A. Campbell, KM4EHU,** Secretary

The directors' meeting was called to order by President **Smokey Wallace**, **KE6IVK**, at 7:31pm. In attendance were: First Vice President **Bill Fuqua**, **WA4LAV**; Treasurer **John Barnes**, **KS4GL**; Secretary **Bruce Campbell**, **KM4EHU**; Directors-at-Large

Tim Kunkel, KF4MPM and **David Richardson, W9KHZ.** In addition, Historian and Newsletter Committee Chairman **Bill DeVore, N4DIT**, was present.

President **Smokey Wallace**, **KE6IVK**, asked for a moment of silence and reflection in memory of recent Silent Key members **Paul Mitchell**, **N4DUE**, and **Pete Clough**, **WD4GPO**.

Treasurer **John Barnes**, **KS4GL**, reported that no new membership applications have been received.

Treasurer **John Barnes**, **KS4GL**, submitted the summary treasurer's report of amounts in available deposits as of August 31, 2017.

Checking account:

 General:
 \$ 10,968.82

 Coax/repeater:
 \$ 1,164.64

 Education:
 \$ 1,909.29

 Total:
 \$ 14,042.75

 PayPal account:
 \$ 2,661.84

 Savings account:
 \$ 200.38

Total balance of accounts: \$ 16,904.97

David Richardson, W9KHKZ, moved, and **Bill DeVore, N4DIT**, seconded that the treasurer's report be accepted, which was approved unanimously.

Secretary **Bruce Campbell, KM4EHU**, reported that BARS ARRL affiliation has been reactivated and is now listed on the ARRL web page.

Committee Reports

Education: Bill Fuqua, WA4LAV. The Lexington Library, Tates Creek Branch, would like a one (1)-hour presentation on an introduction to amateur radio. They would require a three (3)-month advance notice to allow them to schedule the presentation. Two volunteers would be desirable for technician class sessions.

Volunteer Examinations: (Fernie Williams, KE4MEI). The next exam session will be Tuesday September 19th.

Hamfest: David Richardson, W9KHZ. Suggestions for improvements or changes for next year's hamfest are welcome.

Contest: The committee's chairman position is currently vacant, and volunteers for the committee will be considered.

Emergency Preparedness: The committee's chairman position is currently vacant, and volunteers for the committee will be considered.

Treasurer's Report

Respectfully submitted, **John Barnes/KS4GL**, Treasurer

BLUEGRASS AMATEUR RADIO SOCIETY, INC. INCOME, EXPENSES, AND ACCOUNT BALANCES September 30, 2017

	Checking Account	Pay Pal Account	Savings Account	Total
Income:				
ARRL Dues	0.00	0.00	0.00	0.00
BARS Dues	0.00	0.00	0.00	0.00
Coax/Repeater	0.00	0.00	0.00	0.00
Donations	0.00	0.00	0.00	0.00
Education	0.00	0.00	0.00	0.00
Hamfest	0.00	0.00	0.00	0.00
Interest	1.77	0.00	0.03	1.80
Miscellaneous	0.00	0.00	0.00	0.00
Total	1.77	0.00	0.03	1.80
Expenses:				
ARRL Dues	0.00			0.00
Coax/Repeaters	0.00			0.00
Donations	1000.00			1000.00
Education	0.00			0.00
Election	0.00			0.00
Equipment	0.00			0.00
Field Day	0.00			0.00
Hamfest	0.00			0.00
Insurance	0.00			0.00
Miscellaneous	0.00			0.00
Newsletter	0.00			0.00
Picnic	164.57			164.57
P.O. Box/Postage	0.00			0.00
Subscriptions	0.00			0.00
Telephone	0.00			0.00
Total	1164.57		1	164.57

Account Balances

August 31, 2017 September 30, 2017

Total Balance	\$16904.97	\$15742.20
Savings Balance	\$ 200.38	\$ 200.41
Pay Pal Balance	\$ 2661.84	\$ 2661,84
Checking*	\$14042.75	\$12879.95

*Fund Specific Balances

(Checking)

General	\$10968.82	\$ 9806.02
Coax/Repeater	\$ 1164.64	\$ 1164.64
Education	\$ 1909.29	\$ 1909.29
Total	\$14042.75	\$12879,95
lotal	\$14042.75	\$12879,95

^{*}Reference made to "BARS" refers to Bluegrass Amateur Radio Society, Inc., wherever it occurs.

Public Relations and Membership:

The committee's chairman position is currently vacant and volunteers for the committee will be considered.

Library: John Barnes, KS4GL. Bookcase rearrangements will be started on Saturday, September, 23rd.

Shack HF Liaison: David Richardson, W9KHZ. Equipment and gear inventory is proceeding.

Old Business

Tech Soup application has been completed for reduced costs of the club's computer software.

New Business

1. Members for the Nominating Committee for the 2018 election of officers will be

- considered and appointed at the October general meeting.
- Volunteers will be needed to operate the shack during the Boy Scout Jamboreeon-the-Air (JOTA) on October 21st.

Upcoming BARS Schedule

September 30th, 8:00am. Paintsville Hamfest.

October 2nd, 7:00pm. KY-QRP Meeting. October 2nd, 7:30pm. BARS General Meeting.

Program: Modification of commercial AM transmitters for amateur radio use.

October 7th, 8:00am. Morehead Hamfest and Bowling Green Hamfest. October 14th, 9:00am. JAWS Tailgate October 16th, 7:30pm. BARS Directors' Meeting.

October 21st, 9:00am. Boy Scout Jamboree-On-The-Air (JOTA)

October 29th, 8:00am. Hazard Hamfest.

November 6th, 7:00pm. KY-QRP Meeting.

November 6th, 7:30pm. BARS General Meeting. Nominations for 2018 Officers Elections.

November 20th, 7:30pm. BARS Directors' Meeting.

With no other business at 8:05pm, **Bill DeVore**, **N4DIT**, moved, and **John Barnes**, **KS4GL**, seconded, that the meeting be adjourned, which was approved unanimously. •

Minutes of the General Meeting of the Bluegrass Amateur Radio Society, Inc., October 2, 2017

Respectfully Submitted, **R. William DeVore/N4DIT**, Secretary (Retired)

The regular monthly meeting of the Bluegrass Amateur Radio Society, Inc., was held Monday, October 2, 2017, in Meeting Room B of the Red Cross Building, 1450 Newtown Pike, Lexington. Officers present were President Joseph (Smokey) Wallace/KE6IVK, Treasurer John Barnes/KS4GL, and Director-at-Large Tim Kunkel/KF4MPM and David Richardson/W9KHZ. Committee Chairs who do not serve as officers Bill De Vore/N4DIT and Andrew Cook/KF4OWP were also present. There were 17 in attendance, two of whom were guests.

The president called the meeting to order at 7:37 PM and asked everyone present to identify themselves by name and call sign.

The president then asked for reports of any members being ill or incapacitated. It was noted that **Bill Fuqua/WA4LAV** is under a doctor's care, and that **J.B. Young/WA4WWH** was ill with flu-like symptoms. It was also reported that members **Harry Sparks/KN4S** and **Teddy Mullins/WB4ELR** had both recovered from their respective illnesses and are doing well. He then asked if anyone had upgraded their license or applied for/received a new call sign. None were reported.

The president then asked for the Treasurer to give his report. John gave his financial report as posted September 30, 2017. He reported he had mailed a check for \$1000.00 to the Bluegrass Chapter of the American Red Cross, in support of efforts they are doing in Houston, Texas, and Florida as approved by the members present during the Club's General Meeting, September 11, 2017. Bill De Vore/N4DIT moved that John's financial report be accepted and approved. A Second was voiced by Tim Kunkel/KF4MPM. Motion passed.

The president then turned the meeting over to guests **Doug Ponder/K4PVN** and

*Reference made to "BARS" means Bluegrass Amateur Radio Society, Inc., wherever it occurs.

Richard McKinney/WB4VFN who presented a very interesting program about a very large, old, AM transmitter Richard had rescued from the broadcast station at Renfro Valley and put on the air from his home on the Amateur Radio bands (mostly 160 meters).

Following Doug and Richard's program, president Wallace asked for volunteers to serve as the nominating committee to call members in good standing to submit their names to be place on the ballot for officers of the club for 2018. Roger/KJ4YSY and Loretta Colvin volunteered to conduct that search again this year. The president asked for additional volunteers to assist Roger and Loretta. . . none came forward. The president thanked Roger and Loretta for their dedication to this important task.

Old Business

None

New Business

The president reported on the upcoming nationwide activity by the Boy Scouts of America, Jamboree-on-the-Air (JOTA). This annual activity will be held during the weekend of October 21/22 (Saturday and Sunday). The Club shack will be open and Boy Scouts, Girl Scouts, and Cubs, and their troop/pack leaders, will be given the opportunity to talk with other scouts and Ham operators across the U.S. and Canada. The shack will be opened at 9:00 AM Saturday, October 21.

A number of troops will be invited; food and drinks will be provided.

The president then read the formal Bluegrass ARS scheduled meetings, plus various other Ham activities, for October and November, as compiled by Secretary **Bruce Campbell/KM4EHU:**

October 7, 8:00 AM, Morehead Hamfest and Bowling Green Hamfest.

October 16, 7:30 PM, Board of Directors' Meeting, in the Education Center, Basement of the Red Cross Building.

October 21, Boy Scouts Jamboree-onthe-Air (JOTA), Shack will open at 9:00 AM.

October 29, 8:00 AM, Hazard Hamfest. November 6, 7:00 PM, KY-QRP Meeting in meeting room B of the Red Cross Building.

November 6, 7;30 PM, General Meeting in meeting room B of the Red Cross Building. Program: Nomination of Officers for 2018.

November 20, 7:30 PM, Board of Directors' Meeting in the Education Center, basement of the Red Cross Building.

Following the reading of scheduled club activities for October and November, Andrew Cook/KF4OWP moved the meeting be adjourned; a second was voiced by Linda Dawson/AK4GZ. The motion passed and the meeting was adjourned at 8:33 PM. +

Minutes of the Board of Directors' Meeting, October 16, 2017*

Respectfully Submitted by R. William De Vore/N4DIT, Secretary (Retired)

The board of directors' meeting was called to order by President Joseph "Smokey" Wallace, KE6IVK, at 7:37 PM. Also in attendance were First Vice President Bill Fuqua, WA4LAV, Treasurer John Barnes, KS4GL, and Director-at- Large Tim Kunkel, KF4MPM. In addition, Repeater Committee Chair Andrew Cook/KF4OWP, Historian and Newsletter Committee Chair Bill DeVore, N4DIT, MARS representatives Berry Jackson/WB4N and Harvey Fry/AA4HF, and member Harry Dence/N4HT were present.

The president reported member **Bill Fuqua/WA4LAV** has been ill and is under a doctor's care. (Bill then joined the meeting.) The president then called for officer and committee chair reports.

Treasurer **John Barnes**, **KS4GL**, reported that no new membership applications have been received. He then submitted his financial summary of amounts in available deposits as of September 30, 2017. (See table on page 10 of this newsletter.) **Andrew Cook/KF4OWP** moved John's report be approved as presented. A second was voiced by **Bill De Vore/N4DIT**. Motion passed.

First Vice President **Bill Fuqua/WA4LAV** reported he will be having hip replacement surgery next Monday and will not be available for his workshops or other Club activities during his period of recovery.

Committee Reports

Education Committee: Bill Fuqua, WA4LAV reported he has not been holding his Saturday workshop nor Thursday Technical Group meetings due to his being under a doctor's care.

Shack Committee: Smokey Wallace/KE6IVK reported the shack will be open Saturday, October 21, 9:00 AM-5:00 PM to participate in the nationwide JOTA (Boy Scout Jamboree-On-The-Air) activities. He said an invitation has been broadcast to Boy Scout troops, Cub packs, and Girl Scout troops through the organization's national headquarters in Maryland.

Library Committee: John Barnes, KS4GL reported the work session that

had been scheduled for last Saturday had to be cancelled due to the Red Cross and Better Business Bureau parking lots being barricaded for resurfacing.

MARS: Barry Jackson/WB4N and Harvey Fry/AA4HF gave an update on setting up their HF station. They said there still was work to be done, but they were using the station using the Club's antenna and a tuner.

Volunteer Examinations: (Fernie Williams, KE4MEI). The next exam sessions will be Thursday, November 2, 2017, 06:30 PM, ARRL VEC, in Georgetown, Kentucky (Ron Malinowski/WX4GPS); and, Saturday, November 11, 2017,10:00 AM, ARRL VEC, in Danville, Kentucky (John Wulf/K4FT).

Contest: The committee's chairman position is currently vacant, and volunteers for the committee are requested.

Emergency Preparedness: The committee's chairman position is currently vacant, and volunteers for the committee are requested.

Public Relations and Membership: The committee's chairman position is currently vacant and volunteers for the committee are requested.

Old Business

Roger/KJ4YSY and Loretta Colvin have been calling members who have paid their dues for 2017 to ask them to place their names on the ballot to serve as an officer of the Club for 2018. They will give their report during the general Club meeting November 6.

New Business

Bill Fugua/WA4LAV reported he has a friend who has donated a large number of pieces of radio equipment to the Club. Bill said he has rented a storage unit to put the equipment in since there is a water problem in the basement of his friend's house and the equipment must be moved. Bill said he checked with David Richarson/W9KHZ to see if he knows of a building we can use for a day to conduct an auction. Maybe in December. Bill showed pictures of some of the equipment. He said he has moved less than half of the equipment so he needs people to help move the remaining pieces. He also asked the Club to reimburse him for his expenses in renting the storage unit and U-Haul truck (\$307.60). Tim Kunkle/KF4MPM moved the Club reimburse Bill. John Barnes/KS4GL voiced a second. Motion passed. Smokey Wallace/KE6IVK suggested we come up with ideas about how best to dispose of the equipment auction, eBay. . .?

Upcoming Bluegrass ARS Schedule

November 6, 7:00 PM. KY-QRP Meeting.

November 6, 7:30 PM. Bluegrass ARS General Meeting. Nominations for 2018 Officers Elections.

November 20,7:30 PM. Bluegrass ARS Directors' Meeting.

With no other business at 8:05 PM, Andrew Cook/KF4OWP, moved, and Tim Kunkel/KF4MPM, voiced a second, that the meeting be adjourned. Motion passed unanimously. •



QUA/HAMnews

QUA/HAMnews is published monthly by the Newsletter Committee of the Bluegrass Amateur Radio Society, Inc., and is distributed by e-mail only.

Letters to the editor, technical articles, items of interest to the Ham community and guest editorials are invited and will be published at the discretion of the editor. Items for sale by members of the Society will be advertised without charge for one issue, and may be resubmitted as often as desired. These ads must be noncommercial in nature.

Articles published in QUA/HAMnews do not necessarily represent the views of the Officers, Board of Directors, editor, or Society membership, nor does publication thereof represent concurrence by the Officers, Board of Directors, editor, or Society membership of the contents of the article. No article will be published unless it is accompanied by the name(s) of the person(s) submitting the material.

R. William (Bill) DeVore/N4DIT, 112 Brigadoon Pkwy, Lexington, Kentucky 40517-1305 (859) 273-8345 billdit@twc.com

Standing Committee Chairs:

Contest	Need Chair
Education	Bill Fuqua/WA4LAV (859) 272-9523 (wlfuqu00@uky.edu)
Emergency Prepare	edness (Liaison Bluegrass ARS with LFUCG DEM)
D	avid Richardson/W9KHZ (859) 983/1380) (daveinlex3@gmail.com)
Hamfeet I	David Richardson/W9KH7 (859) 983/1380) (daveinlex3@gmail.com)

Hamfest......David Richardson/W9KHZ (859) 983/1380) (daveinlex3@gmail.com)
Newsletter.....Bill DeVore/N4DIT (859) 273-8345 (billdit@twc.com)
Program....James Schlesser/WA9MED (757) 478-2186 (wa9med@jschlesser.com)
Public Relations and Membership....Need Chair

Trustees, Ex Officio Committee Chairs, and Contacts for Special Activities:

HF Liaison to Shack Committee David Richardson/W9KHZ VHF Liaison to Shack Committee Tim Kunkle/KF4MPM

President:

Joseph Wallace/KE6IVK 409C Laredo Court Lexington, Kentucky 40517 859/402-8208 ke6ivk@arrl.net

Second Vice-President:

James Schlesser/WA9MED 1492 Elizabeth Street Lexington, Kentucky 40503 757/478-2186 wa9med@jschlesser.com

Treasurer:

John Barnes/KS4GL 216 Hillsboro Avenue Lexington, Kentucky 40511-2105 859/253-1178 jrbarnes@iglou.com

First Vice-President:

Bill Fuqua/WA4LAV 3395 Greentree Drive Lexington, Kentucky 40517 859/272-9523 wlfuqu00@uky.edu

Secretary:

Bruce Campbell/KM4EHU 169 Millwood Drive Winchester, Kentucky 40391 859/744-7608 bruce_campbell@mymail.eku.edu

Directors-at-Large:

Tim Kunkle/KF4MPM 426 Blueberry Lane Lexington, Kentucky 40503 859/279-6307, and David Richardson/W9KHZ 1809 Wayland Drive Lexington, Kentucky 40505 859/983-1380 daveinlex3@gmail.com

Annual Dues (January 1 - December 31)

Payable using Pay Pal – Go to http://www.BluegrassARS.org, click on "Membership," click on the option for your preference as below:

Regular Membership: One year – \$20.00; two years – \$38.00; three years – \$55.00 (Additional family member(s) at the same address \$1.00 each per year)

Associate Membership – \$15.00 (for those who reside farther than 50 miles from Lexington)

Full-Time Student Membership - \$12.00 (for those 21 and under, and no other Club member in the family)

Shack telephone: (859) 231-0974 web page: http://www.BluegrassARS.org/



Calendar of Ham Radio Activities for November 2017



- Wed 1 Six Shooters Net, 8:00 PM on 52.525 MHz FM (vertically polarized); Fayette County ARES Net, 9:00 PM, 146.760 repeater.
- Thu 2 Meeting of Bluegrass ARS Technical Group, 6:30 PM, Education Ctr, basement, Red Cross Building, 1450 Newtown Pike, Lexington; Ragchew Net, 7:30 PM, 146.760 Repeater, Malcolm/KY4MJW net control.
- Sat 4 Shack open 9:00-Noon; Radio Theory and Construction Workshop, 1:00-3:00 PM, basement, Red Cross Bldg, 1450 Newtown Pike.
- Sun 5 Amateur Television & Specialized Communications Net, 9:00 PM (146.760 Repeater); District 11 Skywarn Net, 8:00 PM, 146.925 (PL-79.7 Hz) linked to 147.180 (PL-74.4 Hz).
- Mon 6 KY-QRP meeting, 7:00 PM, Meeting Room "B," Red Cross Bldg, 1450 Newtown Pike, Lexington.
- **Mon 6 Bluegrass ARS Club meeting**, 7:30 PM, Meeting Room "B," Red Cross Bldg, 1450 Newtown Pike; District 11 ARES Net 9:00 PM 146.925 (PL-79.7) linked to 147.180 (PL-74.4).
- Tue 7 Amateur Swap Net 145.370 (T-192.8) 8:00 PM; "Casual Communicators Net," 9:00 PM Eastern, 443.325+ MHz.
- Wed 8 Six Shooters Net, 8:00 PM on 52.525 MHz FM (vertically polarized); Fayette County ARES Net, 9:00 PM, 146.760 repeater.
- Thu 9 Meeting of Bluegrass ARS Technical Group, 6:30 PM, Education Ctr, basement, Red Cross Building, 1450 Newtown Pike, Lexington; Ragchew Net, 7:30 PM, 146.760 Repeater, Malcolm/KY4MJW net control.
- Sat 11 Shack open 9:00-Noon; Radio Theory and Construction Workshop, 1:00-3:00 PM, basement, Red Cross Bldg, 1450 Newtown Pike.
- Sun 12 Amateur Television & Specialized Communications Net, 9:00 PM (146.760 Repeater); District 11 Skywarn Net, 8:00 PM, 146.925 (PL-79.7) linked to 147.180 (PL-74.4).
- Mon 13 **Jessamine Amateur Wireless Society meeting,** 7;00 PM, St. Joseph/R.J. Corman Ambulatory Care Center, 1250 Keene Road, Nicholasville; District 11 ARES Net 9:00 PM 146.925 (PL-79.7) linked to 147.180 (PL-74.4).
- Tue 14 Amateur Swap Net 145.370 (T-192.8) 8:00 PM; "Casual Communicators Net," 9:00 PM Eastern, 443.325+ MHz.
- Wed 15 Six Shooters Net, 8:00 PM on 52.525 MHz FM (vertically polarized); Fayette County ARES Net, 9:00 PM, 146.760 repeater.
- Thu 16 Meeting of Bluegrass ARS Technical Group, 6:30 PM, Education Ctr, basement, Red Cross Building, 1450 Newtown Pike, Lexington; Ragchew Net, 7:30 PM, 145.490 Repeater, Malcolm/KY4MJW net control.
- Sat 18 Shack open 9:00-Noon; Radio Theory and Construction Workshop, 1:00-3:00 PM, basement, Red Cross Bldg, 1450 Newtown Pike. License Exam Session, 10:00 AM, Darrell Epperson/AC4YD, eppersond@aol.com, 859-771-1834, W5YI, Clark Cty EOC, 200 Maryland Ave., Winchester, KY
- Sun 19 Amateur Television & Specialized Communications Net, 9:00 PM (146.760 Repeater); District 11 Skywarn Net, 8:00 PM, 146.925 (PL-79.7 Hz) linked to 147.180 (PL-74.4 Hz).
- Mon 20 Bluegrass ARS Board of Directors' Meeting, 7:30 PM, Education Center in basement of Red Cross Building; District 11 ARES Net 9:00 PM 146.925 (PL-79.7) linked to 147.180 (PL-74.4).
- Tue 21 Amateur Swap Net 145.370 (T-192.8) 8:00 PM; "Casual Communicators Net," 9:00 PM Eastern, 443.325+ MHz.
- Wed 22 Six Shooters Net, 8:00 PM on 52.525 MHz FM (vertically polarized); Fayette County ARES Net, 9:00 PM, 146.760 repeater.
- Thu 23 Meeting of Bluegrass ARS Technical Group, 6:30 PM, Education Ctr, basement, Red Cross Building, 1450 Newtown Pike, Lexington; Ragchew Net, 7:30 PM, 145.490 Repeater, Malcolm/KY4MJW net control.
- Sat 25 Shack open 9:00-Noon; Radio Theory and Construction Workshop, 1:00-3:00 PM, basement, Red Cross Bldg, 1450 Newtown Pike.
- Sun 26 Amateur Television & Specialized Communications Net, 9:00 PM (146.760 Repeater); District 11 Skywarn Net, 8:00 PM, 146.925 (PL-79.7 Hz) linked to 147.180 (PL-74.4 Hz).
- Mon 27 District 11 ARES Net 9:00 PM 146.925 (PL-79.7) linked to 147.180 (PL-74.4).
- Tue 28 Amateur Swap Net, 145.370 (T-192.8) 8:00 PM; "Casual Communicators Net," 9:00 PM Eastern, 443.325+ MHz.
- Wed 29 Six Shooters Net, 8:00 PM on 52.525 MHz FM (vertically polarized); Fayette County ARES Net, 9:00 PM, 146.760 repeater.
- Thu 30 Meeting of Bluegrass ARS Technical Group, 6:30 PM, Education Ctr, basement, Red Cross Building, 1450 Newtown Pike, Lexington; Ragchew Net, 7:30 PM, 145.490 Repeater, Malcolm/KY4MJW net control.