



ARRL Standard



Pray for our  
Troops



God Bless America!

# QUA / HAMnews

October  
2018

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Memorial BBS  
145.010 and 145.090

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E-mail: [k4kjq@bluegrassars.org](mailto:k4kjq@bluegrassars.org)

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"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](mailto: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](mailto:bars@lsv.uky.edu)>.

### -- THE PROGRAM FOR THE OCTOBER MEETING . . .

. . . "Studying Solar and Lunar Eclipses with Homebrew Optical Projectors and Ham Radio Gear". See below.

*Call for Candidates*

### -- FOR ALL OFFICER POSITIONS --

See details on Page 2.

**-- NOTE: REPORTS OF THE RECORD OF THE BYLAWS COMMITTEE MEETINGS AFTER REPORT #3 ARE NOT PUBLISHED IN THE NEWSLETTER DUE TO THE LENGTH OF THE MANUSCRIPTS. CONTACT SECRETARY CAMPBELL TO OBTAIN RECENT MEETING RECORDS, OR CONTACT ME FOR A COPY OF THE REPORTS ISSUED BY THE COMMITTEE ([billdit@twc.com](mailto:billdit@twc.com)) --**



"Some people spend an entire lifetime wondering if they made a difference in the world. But, the Marines don't have that problem."

~ **Ronald Reagan**



It's not too early to start planning!!

Hope to see a large crowd at the Kentucky Horse Park this year!!!

QUA/HAMnews

October 2018

## Meeting Notice

**Bill De Vore/N4DIT,**

*Chair, Newsletter Committee*

*Bluegrass ARS, Lexington, Kentucky*

The regular meeting of the Bluegrass Amateur Radio Society, Inc., will be held October 1, 2018, 7:30 PM, meeting room "B" in the Red Cross Building, 1450 Newtown Pike, Lexington, Kentucky. The program will be presented by **Dale Covington/K4GSX**, Marietta, Georgia. Subject of the meeting will be a discussion of "Studying Solar and Lunar Eclipses with Homebrew Optical Projectors and Ham Radio Gear."

Dale commented about his presentation: "Weeks before the total solar eclipse that swept across America a year ago last August, I started building an eclipse projector for safely viewing the Sun. On the day of the eclipse, I set the finished projector up in Jasper, GA where totality would be just under 99 percent. Assisted by my wife Barbara, we erected on the site an extended double zepp sloper antenna cut for 40-meters. This antenna, connected to a 2-Watt transceiver, enabled studies of the eclipse's effect on HF propagation during the Solar Eclipse QSO Party." My presentation will describe the equipment, its performance during the eclipse, and a slide presentation produced that we made.

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 Schlessler/WA9MED**, during a Club meeting, or contact him at (757) 478-2186, or e-mail to <[wa9med@jschlessler.com](mailto:wa9med@jschlessler.com)>. ♦

## Board of Directors' Meeting

**Bill De Vore/N4DIT, Chair,**

*Newsletter Committee*

*Bluegrass ARS, Lexington, Kentucky*

The Board of Directors of the Bluegrass Amateur Radio Society, Inc., will meet Monday, October 15, 2018, at 7:30 PM in the Education Center, basement of the Red Cross Building, 1450 Newtown Pike.

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 Schlessler/WA9MED**, during a Club meet-

ing, or contact him at (757) 478-2186, or e-mail to <wa9med@jschlesser.com>.

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 2019 by Bluegrass ARS

It is time to be thinking about who will be officers of the Bluegrass ARS in 2019. 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, **Andrew Cook/KF4OWP**, will be naming the Nominating Committee during the October club meeting and the committee's responsibility will be to call members and encourage them (YOU) to place your names on the 2019 ballot.

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

## September Club Meeting

### The Club's Annual Family Picnic

We had good weather, I counted 37 people as they enjoyed fried chicken and fixins, hot dogs, brats, and burgers, plus many wonderful covered dishes containing casseroles, salads, deserts – great deserts, great conversation – perfect ingredients for an enjoyable evening. I believe I said this very same thing last year. . .which shows how well this gathering has become an annual affair for so many of our members, their families and friends. Story and pictures on page 5.

Please consider taking your turn as an officer or serving on the nominating committee. This can be done by attending the October Club meeting or calling Andrew at 859/396-9930 or eMail to <kf4owp@gmail.com>. ♦

## Caution – KYARES.net Website May Be Effectuated

**Jeff Thomas/WA4ZKO**,  
<wa4zko@outlook.com>  
via AMKYHAM@groups.io

FYI the kyares.net website is trying to serve up malware as of at least this morning (Sunday, September 9, 2018, 9:48 AM),

The malware is one of the Kryptik trojans. While there are numerous variants out there one of the early variants was used in the Ukrainian power grid cyber-attack awhile back.

If you've been on the website recently and your AV didn't hit on anything then that is an indication you might be infected and not know it. You should strongly consider running some of the third party on-line scanners to double/triple check your system. The Kryptik class of trojans are nasty critters that try to hide while stealing logins/passwords, doing host/internal network recon, and maintaining a foothold on the compromised host(s)/networks. Thus this is not your typical spam/popup malware.

Below are links to a few well-regarded free on-line AV scanners or you can google for them if you don't trust links:

<<https://www.eset.com/us/home/online-scanner/>>

<[https://www.trendmicro.com/en\\_us/forHome/products/housecall.html](https://www.trendmicro.com/en_us/forHome/products/housecall.html)>

<[https://www.f-secure.com/en\\_US/web/home\\_us/online-scanner](https://www.f-secure.com/en_US/web/home_us/online-scanner)> ♦

## Program Schedule for 2018

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

The following programs are scheduled for 2018. Your input and suggestions for programs for 2018 are needed. Call **James Schlesser/WA9MED** at (757) 478-2186, or e-mail to <wa9med@jschlesser.com>.

| Month       | Topic   | Presenter(s)   | Comments   |
|-------------|---|--|--|
| ✓ January   | "Winter Field Day, January 27-28, 2018"   | <b>David Richardson, W9KHZ</b>                         |  |
| ✓ February  | "Software Defined Radio (SDR)"  | <b>James Schlesser/WA9MED</b>                          | What Programs Would You Like to Hear?  |
| ✓ March     | "Severe Weather Identification and Reporting"   | <b>Joe Sullivan/KC7ITG</b>                             | of the NWS, Louisville   |
| ✓ April     | "Design and Construction/Use of an Eggbeater Omnidirectional Antenna"                   | <b>James Schlesser/WA9MED</b>                          |  |
| ✓ May       | Members' Discussion, "How I Became Interested in Amateur Radio, Getting Licensed"       |  |  |
| ✓ June      | "Field Day" (Presenter Pending)   |  | Site location, preparation, operating stations, etc.                           |
| ✓ July      | Open  |  |  |
| ✓ August    | Hamfest   | <b>Dave Richardson/W9KHZ</b> and <b>Fest Committee</b> | Location, preparation, tickets, tables, work crews, etc.                       |
| ✓ September | Annual Family Picnic  | <b>Fun, Food, Conversation</b>                         | Picnic Shelter #2, Shillito Park, Lexington                                    |
| October     | "Studying Solar and Lunar Eclipses with Homebrew Optical Projectors and Ham Radio Gear" | <b>Dale Covington, K4GSX</b>                           |  |
| November    | Report of Nominating Committee  |  |  |
| December    | Annual Auction  | <b>J.B. Young</b>                                      | will serve as auctioneer to see if he can get you some cash – Bring your items |



## How to Interact With Blind People

**Jerry B. Young/WA4WWH,**  
jbyoung8@windstream.net,  
Member, Bluegrass ARS,  
Lexington, Kentucky

Imagine waking up one morning after 25 years of having the privilege to view God's beautiful creations each and every day completely blind. The rest of your life to be lived in total darkness. How would you cook, get to the grocery? What type of assistance would you need? How would you want people to interact with you? Could anything positive come out of this tragedy?

My newest project is a product titled: **How to Interact with Blind People & More**, co-produced with Tom Hailey and *The Break Out Session*, and it answers these questions.



J.B. Young/WA4WWH and Tom Hailey.

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.

It is a series of audio and video recordings about my experiences of living in total darkness for over 50 years. I share introspective thoughts and lessons learned in hopes of inspiring you to overcome challenges and obstacles in your life. I give you my opinion on how to interact with blind people in hopes of making you less fearful when you meet us. My goal is to entertain, inspire, and educate you in a fun and enjoyable format.

My product can be purchased at <https://www.thebreakoutsession.com/products/>

For those of you who I know personally, I thank you for your support, but more importantly, I thank you for your friendship over the years. For those of you who are meeting me for the first time through this correspondence, I hope you enjoy your purchase, but more importantly, I look forward to becoming your friend.

If you have any questions or need additional information, please contact me at:

859-266-0841 or <jbyoung8@windstream.net>. ♦

Support for new exchanges should expand the ability of contesters to use FT8 and other WSJT-X protocols during contests that allow digital contacts and where the exchange is a traditional signal report and state/province/country.

According to the release notes, WSJT-X 2.0 also offers "significantly better sensitivity" (about 1 dB) for the WSPR decoder. In addition, color highlighting of decoded messages provides worked-before status for call signs, grid locators, and DXCC entities on a by-band basis. Color highlighting can also identify stations that have -- or have not -- uploaded their logs to "Logbook of The World" (LoTW) within the past year.

Those participating in WSJT-X beta tests are expected to report their experiences to the developers and upgrade to the general availability release when it becomes available. Visit the WSJT-X web page for more information. ♦

## A New FT8 with Rag Chew Abilities (FT8CALL)

qrznw.com  
August 13, 2018

FT8 has taken over the airwaves as the digital communication mode for making QSOs over HF/VHF/UHF. The mode has been widely popular as the latest offering in K1JT's WSJT-X application. FT8 stands on the shoulders of JT65, JT9, and WSPR modes for weak signal communication, but transmits much faster with only slightly reduced sensitivity.

While FT8 is an incredibly robust weak signal mode, it is designed heavily to take advantage of short band openings on HF/VHF/UHF and only offers a minimal QSO framework. However, many operators are using these weak signal qualities to make successful QSOs on the HF bands where other modes fail.

The idea with FT8Call is to take the robustness of FT8 mode and layer on a messaging and network protocol for weak signal communication on HF, similar to FSQ and Fldigi with a keyboard-to-keyboard interface.

Read more on the design inspiration here: <<https://github.com/jsherer/ft8call>>

FT8Call is a derivative of the WSJT-X application, restructured and redesigned for keyboard-to-keyboard message passing. It is not supported by nor endorsed by the WSJT-X development group. While the WSJT-X group maintains copyright over

## New Beta Version WSJT-X 2.0 Boasts Major Changes

"The ARRL Letter,"  
**Rick Lindquist, WW1ME, Editor**  
September 20, 2018,

As promised, the WSJT-X Development Group has announced a new "candidate release," WSJT-X 2.0 rc1. This beta version of the popular digital mode suite incorporates many new FT8 and MSK144 features that will be of particular interest to the Amateur Radio contesting community. It includes all FT8 DXpedition Mode changes already developed in WSJT-X 1.9.1.

"Enhancements to the FT8 decoder ensure that in most situations decoding sensitivity is slightly better than for the old protocol. Symbol rates and occupied bandwidths are the same as before, and false-decode rates are significantly lower," the user notes explain. "The decoding thresh-

old for MSK144 is a fraction of a decibel higher than before, owing to the slightly larger message payload and higher code rate." WSJT-X 2.0 introduces no significant changes to the JT4, JT9, JT65, QRA64, ISCAT, Echo, or FreqCal protocols.

The new features are summarized on the WSJT-X website and in the Quick-Start Guide to WSJT-X 2.0. Contest-related changes include:

Support for standard ARRL Field Day exchanges, such as 6A SNJ.

Better support for North American VHF contests, with improved handling of grids and /r rover call sign designators. Six-character locators and call sign suffix support for portable operators, focused on EU VHF contesting.

Support for standard contest exchanges in the ARRL RTTY Roundup, such as 579 MA or 559 0071.

Support for call signs of up to 11 alphanumeric characters, to accommodate nonstandard and compound call signs.

the original work and code, FT8Call is a derivative work licensed under and in accordance with the terms of the GPLv3 license. Source code can be found in this public repository: <<https://bitbucket.org/widefido/ws7x/>>.

FT8Call currently comes in a variety of builds:

Desktop Linux (64-bit x86\_64, Ubuntu 18.04 AppImage) v0.4.2  
 Desktop Linux (64-bit x86\_64, deb) v0.4.2  
 Desktop Linux (32-bit i386) v0.4.2: [not yet available]  
 Raspbian Stretch (armv7, AppImage) v0.4.2  
 Raspbian Stretch (armv7, deb) v0.4.2  
 Windows 10 (win32\_64) v0.4.2  
 Mac OSX (x86\_64) v0.4.2: [not yet available]

For the most up-to-date listing of build downloads, check the FT8Call release announcements and FT8Call Release Downloads Wiki. Of course, you are always free to take a look at the source code as well!

NOTE: Until the general release of FT8Call, development versions will only carry a 10-day lifespan. After expiration, you'll be required to upgrade to the latest version of the application.

You may find more useful information by going to:

<[http://qrznow.com/a-new-ft8-with-rag-chew-abilities-ft8call/?utm\\_source=feedburner&utm\\_medium=email&utm\\_campaign=Feed%3A+QrzNow-Ham+RadioNews+%28Update%21+QRZ+Now+-+Ham+Radio+News%29](http://qrznow.com/a-new-ft8-with-rag-chew-abilities-ft8call/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+QrzNow-Ham+RadioNews+%28Update%21+QRZ+Now+-+Ham+Radio+News%29)> ♦

## Student-Built Space Weather Satellites Target Killer Electrons

**Dr. Tony Phillips**

September 20, 2018

<https://spaceweatherarchive.com/2018/09/20/student-built-space-weather-satellite-targets-killer-electrons/>

Last Saturday, a Delta II rocket blasted off at dawn from the Vandenberg AFB in California. Soon thereafter NASA reported the successful deployment of the ICESat-2 satellite, designed to make 3D laser images of Earth's surface.

Here's what most news stations did not report: A pair of tiny satellites were tucked inside the rocket, and they were successfully deployed as well. Built by students at UCLA, ELFIN-A and ELFIN-B are now orbiting Earth, monitoring the ebb and flow of "killer electrons" around our planet.

"We've just received our first downlink of data from ELFIN-A," reports **Ryan Caron**, Development Engineer at UCLA's Department of Earth, Planetary, and Space Sciences. (Audio link can be accessed here)

That may sound like ordinary static, but the signal is full of meaning. As mission controllers turn on ELFIN's science instruments, the static-y waveforms will carry unique information about particles raining  
*(Continued on Page 6)*

## Greater Mason County Club Participates

**Brent Wells/N4BDW**

[n4bdw73@gmail.com](mailto:n4bdw73@gmail.com),  
 Greater Mason County ARC,  
 Maysville, Kentucky

Yesterday (Sunday, 16 September 2018), the Greater Mason County ARC provided support and mobile communications for the Limestone Cycling Tour through Mason, Bracken, and Fleming counties (<http://limestonecyclingtour.com/index.html>). The "tour" included four routes...a 24 mile, a 40 mile, a metric century (approximately 62 miles), and a century ride (100 miles). For the Limestone Cycling Group they compete/participate in a series of rides, with yesterdays being the last for 2018. Last year they had roughly 75 riders participate, but this year they had approximately 440+ riders register and participate! There's a great YouTube video that was posted this past week explaining the history of this event and it's memoriam to a past friend and cyclist (<https://youtu.be/4J6W2Tc8qS8>).

The GMCARC participants were mobile units providing support throughout the day for riders who may have had mechanical issues or a medical emergency. We aided several flat tires to riders bikes while crossing the Harsha Bridge (Ohio River) because of the bridge expansion joints, and fortunately only had one known medical emergency when a rider went down later in the afternoon caused by a rough place in the road. Riders took off from Maysville between 7:30-8:30 AM, and the last riders returned about 6:30 PM evening.

The photo shows, the Club volunteers included (left to right by faces) **Brent Wells/N4BDW**, **David Massey-Brown/N4BBN**, **Charlie Hunter/KN4HFS**, **Bob Brown, Sr./KK4EWP**, **Dale Saner/KN4MDR**, **Greg Taylor/KY4OD**, **Mike Mullins/KN4COE**, **Steve Zweigart/N4VRP**, **Larry Dodge/KG4PXA**, and **Bob Brown, Jr./KI4JWK**. ♦







President Andrew Cook/KF4OWP (left), presented the Ernie Farmer Memorial Award for 2018 to David Richardson/W9KHZ.

## Picnic '18

A short break from eating was taken and president **Andrew Cook/KF4OWP** presented the 2018 Ernie Farmer Memorial Award to Club member **David Richardson/W9KHZ**. People filled plates with plentiful helpings of food (below), especially deserts, and enjoyed the friendly atmosphere that prevailed. Also going on was a QRP station set up and operated by **Roger Colvin/KJ4YSY**, and after eating a group participated in a fox hunt (right) trying to locate the transceiver hidden earlier by David. All-in-all it was a very enjoyable evening again this year.



Foxhunt



Buffet



Food

Photos by Bart Breeding/KB4FEE and Bill De Vore/N4DIT

**Loretta Colvin** started her gas grill and two charcoal grills at about 5:30 PM to make sure the coals were hot, to get the dogs, brats, and burgers going so people arriving at 6:00 PM could waste no time in filling their plates. Folks started arriving soon after. **Loretta** and I had placed the food, drinks, utensils, etc., on the buffet-style main tables before starting the charcoal/gas grills. Then more people started arriving, along with their families and covered dishes . . . and the feasting began. Pictures and narrative continue on Page 5.

At about 7:00 PM President **Andrew Cook/KF4OWP** called for everyone's attention. During the break, Andrew presented the 2018 Ernie Farmer Memorial Award to **David Richardson/W9KHZ** in recognition of his hard work and efforts in reorganizing the Club shack, adding stations to the shack for greater member use and participation, organizing special activities such as Field Day at remote sites twice a year, organizing and coordinating everything necessary for the Club's hamfest, and much more. Andrew read the nominating letter, and then presented an engraved plaque to David.

Those of you who didn't come to the picnic really missed a treat and some great food and conversation. ♦

### Shillito Park Shelter #2



*"I'm truly honored and surprised to have been awarded the Ernie Farmer Award for 2018.*

*"This award is normally given to those who excel in radio theory, construction and engineering and I don't fit any of those descriptions. I just show up and work. There's always something that needs to be done! It feels awesome to be recognized for working hard.*

*"Personally, I really enjoyed seeing so many "new" faces at our annual picnic. The health of the club is good and growing! We had several fox hunters roaming around with their homemade yagis... It was a blast!*

*"Mark Elliot was the first to locate the fox transmitter using a \$4 tape measure antenna and a \$19 HT. Who says HAM radio is an expensive hobby?*

*"I'll share the video after I've edited it... hopefully you'll enjoy watching it as much as we enjoyed creating it."*

Thanks again!  
David W9KHZ

## Student-Built Space Weather Satellites

(Continued from Page 4)

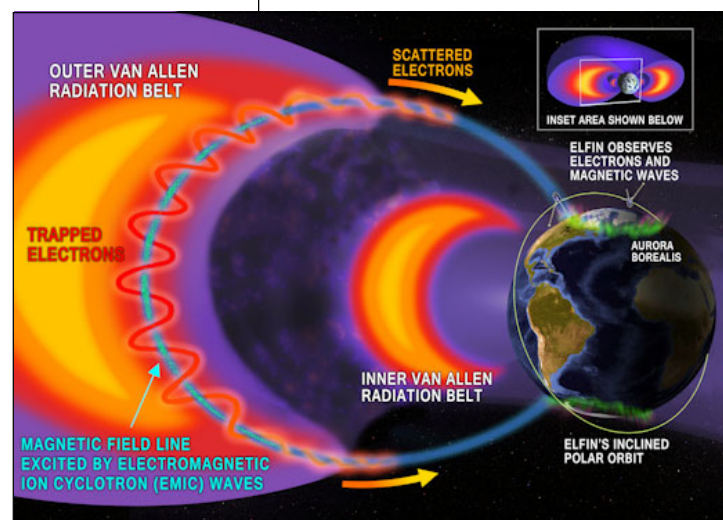
down on Earth from the inner Van Allen Radiation Belt.

"Sensors onboard our two cubesats detect electrons in the energy range 50 keV to 4.5 MeV," says Caron. "These are the so-called 'killer electrons,' which can damage spacecraft and cause electrical disruptions on the ground. They also give rise to the majestic aurora borealis."

"ELFIN is doing something new," says Vassilis Angelopoulos, a UCLA space physicist who got his doctorate at UCLA and serves as ELFIN's principal investigator. "No previous mission was able to measure the angle and energy of killer electrons as they rain down on Earth's

atmosphere. ELFIN will help us investigate how disturbances called 'Electromagnetic Ion Cyclotron waves' knock these electrons out of the Van Allen Belts and scatter them down toward Earth."

ELFIN-A and ELFIN-B are cubesats, each weighing about eight pounds and roughly the size of a loaf of bread. They are remarkable not only for their cutting edge sensors, but also for their origin. The two satellites



were almost completely designed and built by undergraduate students at UCLA. Working for more than five years, a succession of 250 students created the two Electron Losses and Fields Investigation CubeSats – "ELFIN" for short.

"Just seeing all the hundreds of hours of work, the many sleepless nights, the stressing out that you're not going to make a deadline — just seeing it go up there ... I'm probably going to cry," says Jessica Artinger, an astrophysics major and geophysics and planetary science minor who helped build the satellites and witnessed their launch.

The ELFIN website has interactive tools so the public can track and listen to the spacecraft as it passes overhead twice a day. The CubeSats are expected to remain in space for two years, after which they will gradually fall out of orbit and burn up in the atmosphere like shooting stars.

ELFIN has been supported with funding from the National Science Foundation and NASA, with technical assistance from the Aerospace Corporation among other industry partners and universities. ♦

## Ham Radio HF Digital Modes: Hellschreiber, Feld Hell Tutorial

**Pete Kragh, K2UPD**

Sun 9/16, via ListServer  
WB4CWF@LSV.UKY.EDU

any more? At last, I finally finished this video and started another new chapter in a series. Introducing Hellschreiber! A rag chew mode that is similar to CW but for the eyes. This is definitely worth trying and you will have a lot of fun....

<<http://qrznow.com/ham-radio-hf-digital->

## Schedule for Volunteer Examinations in 2018

**Harry Sparks/KN4S,\***

Bluegrass Volunteer Examiners,  
kn4s@kn4s.com

The exam schedule for 2018 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<br>1450 Newtown Pike<br>Lexington KY 40509                  | Clark County EOC<br>200 Maryland Ave<br>Winchester KY 40391 | Amer Legion Post 46<br>45 Spears Lane<br>Danville KY 40422 | Georgetown Police Dept<br>550 Bourbon Street<br>Georgetown KY 40324 |
| * 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@arrrl.net, 859-652-3393 (www.bluegrassars.org)  
Danville – Liaison **John Wulf/K4FT**, johnk4ft@gmail.com, 563-505-0339, Wilderness Road ARC, <http://www.wrarc.com>  
Georgetown – Liaison **Ron Malinowski/WX4GPS**, wx4gps@arrrl.net, 502-542-8252

**WCARS VEC:** Lexington – Liaison **Marguerite Williams/KE4MAJ**, ke4maj@arrrl.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        |
|-------------------------------------|----------|-----------------|
| Saturday, <b>October 13</b> , 2018  | 10:00 AM | W5YI Winchester |
| Saturday, <b>October 27</b> , 2018  | 10:00 AM | ARRL Danville   |
| Saturday, <b>November 10</b> , 2018 | 10:00 AM | ARRL Lexington  |
| Saturday, <b>December 8</b> , 2018  | 10:00 AM | ARRL Georgetown |
| Tuesday, <b>December 11</b> , 2018  | 17:00 PM | WCARS Lexington |

\*Additional exam locations, dates, times are listed at website [kn4s@kn4s.com](http://kn4s.com)



modes-hellschreiber-feld-hell-tutorial/?utm\_source=feedburner&utm\_medium=email&utm\_campaign=Feed%3A+QrzNow-HamRadioNews+%28Update%21+QRZ+Now+-+Ham+Radio+News%29> ♦

## Two 40-Meter Broadcast Intruders Gone

*"The ARRL Letter,"*

September 13, 2018

**Rick Lindquist, WW1ME**, Editor

<[http://www.arrl.org/](http://www.arrl.org/arrlletter?issue=2018-09-13#toc07)

[arrlletter?issue=2018-09-13#toc07](http://www.arrl.org/arrlletter?issue=2018-09-13#toc07)>

The IARU Region 1 Monitoring System (IARUMS) reports that two longtime

**Andy Rooney** wrote that . . .  
*"If dogs could talk it would take a lot of the fun out of owning one."*

broadcast intruders on 40 meters are gone. IARUMS Coordinator **Wolf Hadel, DK2OM**, said in the August IARUMS newsletter that Radio Hargeisa in the Republic of Somaliland on 7.120 MHz, and Radio Ethiopia on 7.140 MHz, departed the band during the last week of August. "We did not miss them," he commented.

IARUMS did report increasing military traffic on 7 and 14 MHz, "especially on digital modes from Russia and China." In addition, a wideband over-the-horizon

(OTH) radar in China has caused serious problems on 20 meters, while an Iranian radar on 28.860 MHz "could be heard under sporadic E conditions." German telecommunications authorities have filed a formal complaint."

Hadel said a Russian Navy system believed to be in Moscow appeared on 7.182 MHz on F1A, a 200 Hz shift, identifying as RDL. German telecommunications authorities were notified.

Hadel also reported "childish behaviour" by hams in western and eastern Ukraine "insulting each other or playing music every day" on 7.055 MHz (LSB).

Reports of amateur band intruders can be submitted via the IARU Region 1 Monitoring System Logger. ♦



## It's the Rule

### IARU Administrative Council Focuses on WRC-19 Prep

*"The ARRL Letter,"*

September 13, 2018

**Rick Lindquist, WW1ME**, Editor

<<http://www.arrl.org/arrlletter?issue=2018-09-13#toc07>>

The International Amateur Radio Union (IARU) Administrative Council (AC) held its annual face-to-face meeting September 8-9 in Seoul, Korea, immediately prior to the IARU Region 3 Conference. The AC is responsible for the policy and management of the IARU and consists of the three IARU international officers and two representatives from each of the three IARU regional organizations.

With International Telecommunication Union (ITU) World Radiocommunication Conference 2019 (WRC-19) now little more than a year away, the efforts of two dozen IARU volunteers to defend Amateur Radio's frequency allocations against commercial pressures and to seek worldwide harmonization of the 50-54 MHz band are reaching a critical stage. Coordination of the IARU team is ongoing during the run-up to the ITU Conference Preparatory Meeting in Geneva next February and WRC-19 itself in October and November. High on the list of concerns is what IARU called "the potential for crippling levels of interference to radio-communications from high-power wireless power transfer (WPT) for electric vehicles."

Given these challenges, the AC reviewed its strategic plan to develop support for amateur spectrum allocations and approved the action plan for the rest of 2018 and 2019. Delegates reviewed and adopted the

IARU 2019-2021 budget, which depends upon anticipated financial contributions from the IARU International Secretariat and the three regional organizations. The AC agreed to maintain its modest annual financial support of the Beacon Project.

The growth of Amateur Radio – and especially how to attract young people – is a common concern of IARU member-societies. The AC will endeavor to identify barriers to growth that the IARU can assist member-societies in addressing and will encourage member-societies to share successful growth strategies.

The IARU policy on QSL bureaus has been under review for several years in light of escalating expenses and the problem of unwanted and undeliverable QSL cards as an environmental concern. Possible policy amendments are being developed for consideration.

Attending the meeting were IARU President **Tim Ellam, VE6SH/G4HUA**; Vice President **Ole Garpestad, LA2RR**; and Secretary **David Sumner, K1ZZ**, along with regional representatives **Don Beattie, G3BJ**; **Hans Blondeel Timmerman, PB2T**; **Reinaldo Leandro, YV5AM**; **Ramón Santoyo, XE1KK**; **Gopal Madhavan, VU2GMN**, and **Peter Young, VK3MV**. Observers included regional executive committee members **Jay Bellows, K0QB**; **Ken Yamamoto, JA1CJP**, and **Don Wallace, ZL2TLL**.

President Roderick and Bellows are also on hand for the 17th International Amateur Radio Union (IARU) Region 3 Conference, hosted by the Korean Amateur Radio League (KARL), which continues until September 14 in Seoul. ARRL is representing the interests of FCC-licensed radio amateurs in Region 3 living in various Pacific territories, including Guam and American Samoa.

KARL reported that to promote the hobby, an entry-level license (ELL) has been introduced as the fourth Amateur Radio license class in Korea. Obtaining this license requires participating in 8 hours of tutoring beginners in Amateur Radio. License holders will be allowed to operate on VHF/UHF bands with up to 10 Watts output.

CRAC reported that China's Amateur Radio population is expanding steadily, with slightly more than 130,100 licensees and an estimated 80,000 active station licenses. The Chinese Class C license, held by only 626 individuals, is the highest license in China, permitting 1 kW on HF and 25 W above 30 MHz.

The conference report "Amateur Radio for Kids" by Julie Gonzales, VK3OWL, and Joe Gonzales, VK3YSP, suggested that engaging youngsters at an early age in radio and electronics should be about more than recruiting or licensing.



## Where's the Rare DX?

"OPDX Bulletin 1382"

September 24, 2018

<<http://www.papays.com/opdx1382.html>>

**ARUBA (P4) (SA-036)** – Frank/PH2M will sign P4/PH2M Nov 17-29 on 80-10m using SSB and FT8. QSL via his home CBA, by the Buro, direct, or LoTW.

**BERMUDA (VP9) (NA-005)** – Steve/AA4V, Dave/K4AJA, Rick/W4GE and Gay/N4SF will sign homecall/VP9 Oct 24-29, including the CQWW DX SSB Contest (Oct 27-28). QSL via each CBA or LoTW (except N4SF).

**BONAIRE (PJ4)** – David/NA2AA, Noah/K2NG, Ron/KK9K and Scott/NE9U will sign PJ4G from Radio Mountain Bonaire station (see pj4g.com) in the CQWW DX SSB Contest (Oct 27-28) and PJ4/homecall before and after the contest. QSL PJ4G via WA2NHA or LoTW. QSL all other calls direct or LoTW.

**KUWAIT (9K)** – Abdallah/9K2GS will sign 9K2K in the CQWW DX SSB Contest (Oct 27-28). QSL via EC5AC or LoTW.

**LAOS (XW)** – Champ/E21EIC will sign XW1IC Oct 12-16 on 40-6m using various modes. QSLs must be requested via the OQRS on ClubLog or via E21EIC and LoTW. NO PAPER QSL IS NEEDED.

**LAOS (XW)** – Bruce/3W3B (HSØZCY/XU7ADF/XW1B/AA4XR) will sign XW4XR Oct 12-22 on 40-10m (possibly 6m) using CW, RTTY, JT65 and FT8. QSL via E21EIC and LoTW.

**LIBYA (5A)** – YL Elham, 5AØYL, is on 20m (14280 kHz, 1530-1730 UTC). No other details are available, but we suggest you watch QRZ.com.

**MADAGASCAR (5R)** – Alex/K2BB and Paul/UUØJR will sign 5R8R (TBD) from Nosy Be Is (AF-057) Nov 19-29 on 160-10m using CW, SSB and Digi. Will be in CQWW DX CW Nov 24-25.

**MALAWI (7Q)** – Don/K6ZO will sign 7Q6M Oct 23-29 on 160-10m and in the CQWW DX SSB Contest (Oct 27-28). QSL via K6ZO.

**MICRONESIA (V6)** – Shu/JA1FMN will sign V63PSK from Weno Is (OC-011) Nov 19-2 on 40-15m using JT65, JT9, FT8 and PSK63, 1700-0200 UTC. QSL via JA1FMN, by the Buro, direct, eQSL or ClubLog's OQRS (on Nov. 26).

**OGASAWARA (JD1)** – Kazu/JD1BNA will operate from Hahajima Is (AS-031) Oct 24-28 on 160/80/40m using mostly CW. QSL via JL1UTS, direct only.

**REUNION AND MAYOTTE ISLANDS (FR & FH) (AF-016)** – (Update) Willi/DJ7RJ will sign FR/DJ7RJ Oct 9-27, and

## Upcoming Contests

Sean Kutzko/KX9X,

QST, <<http://www.arrl.org/contest-calendar>>.

|           |   |
|-----------|---|
| Oct 1-7   | IQRP Quarterly Marathon, All Bands, CW/Digi/Phn, <a href="http://www.arimontebelluna.it">www.arimontebelluna.it</a>                                     |
| Oct 2     | ARS Spartan Sprint, 80-10m, CW, <a href="http://www.arsqrp.blogspot.com">www.arsqrp.blogspot.com</a>  |
| Oct 3     | German Telegraphy Contest, 80/40m, CW, <a href="http://www.agcw.org">www.agcw.org</a>   |
| Oct 3     | 432 MHz Fall Sprint, <a href="http://www.svhfs.org">www.svhfs.org</a>   |
| Oct 3     | UKEICC 80-Meter Contest, Phn, <a href="http://www.ukeicc.com">www.ukeicc.com</a>  |
| Oct 4     | SARL 80-Meter QSO Party, Phn, <a href="http://www.sarl.org.za">www.sarl.org.za</a>  |
| Oct 4     | NRAU 10-Meter Activity Contest, CW/Digi/Phn, <a href="http://www.nrau.net">www.nrau.net</a>   |
| Oct 5-7   | YLRL DX/NA YL Anniversary Contest, All Bands, CW/Digi/Phn, <a href="http://www.ylrl.org">www.ylrl.org</a>   |
| Oct 6     | Microwave Fall Sprint, 902 MHz and Up, <a href="http://www.svhfs.org">www.svhfs.org</a>   |
| Oct 6     | FISTS Fall Slow Speed Sprint, 80-10m, CW, <a href="http://www.fistsna.org">www.fistsna.org</a>  |
| Oct 6-7   | TRC DX Contest CW, 80-10m, Phn, <a href="http://www.trcdx.org/trcdxc">www.trcdx.org/trcdxc</a>  |
| Oct 6-7   | Oceania DX Contest, Phone, 160-10m, Phn, <a href="http://www.oceaniadxcontest.com">www.oceaniadxcontest.com</a>   |
| Oct 6-7   | Russian WW Digital Contest, 160-10m, Digi, <a href="http://www.rdrclub.ru">www.rdrclub.ru</a>   |
| Oct 6-7   | International HELL Contest, 80/40m, Digi, <a href="http://www.darc.de">www.darc.de</a>  |
| Oct 6-7   | California QSO Party, 160-10m, CW/Phn, <a href="http://www.cqp.org">www.cqp.org</a>   |
| Oct 7     | RSGB DX Contest, 80-10m, CW/Phn, <a href="http://www.rsgbcc.org/hf">www.rsgbcc.org/hf</a>   |
| Oct 7     | UBA ON Contest, 80m, Phn, <a href="http://www.uba.be/en">www.uba.be/en</a>  |
| Oct 7     | 7-21 Peanut Power QRP Sprint, 40/15m, CW/Phn, <a href="http://www.nogaqrp.org/PeanutPower">www.nogaqrp.org/PeanutPower</a>                              |
| Oct 8     | RSGB 80-Meter Autumn Series, 80m, CW, <a href="http://www.rsgbcc.org/hf">www.rsgbcc.org/hf</a>  |
| Oct 10    | International 10-10 Day Sprint, 10m, CW/Digi/Phn, <a href="http://www.ten-ten.org">www.ten-ten.org</a>  |
| Oct 10    | NAQCC CW Sprint, 80-20m, CW, <a href="http://www.naqcc.info">www.naqcc.info</a>   |
| Oct 13    | FISTS Fall Unlimited Sprint, 80-10m, CW, <a href="http://www.fistsna.org">www.fistsna.org</a>   |
| Oct 13-14 | Makrothen RTTY Contest, 80-10m, Digi, <a href="http://www.pl259.org/makrothen">www.pl259.org/makrothen</a>  |
| Oct 13-14 | Nevada QSO Party, 160m-UHF, CW/Digi/Phn, <a href="http://www.nvqso.com">www.nvqso.com</a>   |
| Oct 13-14 | Oceania DX Contest, 160-10m, CW, <a href="http://www.oceaniadxcontest.com">www.oceaniadxcontest.com</a>   |
| Oct 13-14 | Scandinavian Activity Contest, 80-10m, <a href="http://www.sactest.net">www.sactest.net</a>   |
| Oct 13-14 | SKCC Weekend Sprintathon, 160-6m, CW, <a href="http://www.skccgroup.com">www.skccgroup.com</a>  |
| Oct 13-14 | QRP ARCI Fall QSO Party, 160-10m, CW, <a href="http://www.qrparci.org">www.qrparci.org</a>  |
| Oct 13-14 | Pennsylvania QSO Party, 160-2m, CW/Digi/Phn, <a href="http://www.paqso.org">www.paqso.org</a>   |
| Oct 13-14 | Arizona QSO Party, 160-2m, CW/Digi/Phn, <a href="http://www.azqsoparty.org">www.azqsoparty.org</a>  |
| Oct 13-14 | South Dakota QSO Party, 160-2m, CW/Digi/Phn, <a href="http://www.sdqsoparty.com">www.sdqsoparty.com</a>   |
| Oct 13-14 | PODXS 070 Club 160-Meter Great Pumpkin Sprint, Digi, <a href="http://www.podxs070.com">www.podxs070.com</a>   |
| Oct 14    | UBA ON Contest, 80m, CW, <a href="http://www.uba.be/en">www.uba.be/en</a>   |
| Oct 14    | UBA ON Contest, 6m, CW/Phn, <a href="http://www.uba.be/en">www.uba.be/en</a>  |
| Oct 15    | 4 States QRP Group Second Sunday Sprint, 160-10m, CW/Phn, <a href="http://www.4sqrp.com">www.4sqrp.com</a>  |
| Oct 15-16 | Telephone Pioneers QSO Party, 160-UHF, CW/Digi/Phn, <a href="http://www.tpqso.com">www.tpqso.com</a>  |
| Oct 15-19 | ARRL School Club Roundup, All Bands, CW/Phn, <a href="http://www.arrl.org/school-club-roundup">www.arrl.org/school-club-roundup</a>                     |
| Oct 17    | RSGB 80-Meter Autumn Series, Data, <a href="http://www.rsgbcc.org/hf">www.rsgbcc.org/hf</a>   |
| Oct 20    | 1.8-7, 21-50 Feld Hell Sprint, 160-40m, 15-6m, Digi, <a href="http://www.sites.google.com/site/feldhellclub">www.sites.google.com/site/feldhellclub</a> |
| Oct 20-21 | Araucaria World Wide VHF Contest, 6-2m, CW/Phn, <a href="http://www.avhfc.com">www.avhfc.com</a>  |
| Oct 20-21 | JARTS WW RTTY Contest, 80-10m, Digi, <a href="http://www.jarts.jp/rules2018.html">www.jarts.jp/rules2018.html</a>                                       |
| Oct 20-21 | 10-10 International Fall Contest, CW, <a href="http://www.ten-ten.org">www.ten-ten.org</a>  |
| Oct 20-21 | New York QSO Party, All Bands, CW/Digi/Phn, <a href="http://www.nyqp.org">www.nyqp.org</a>  |
| Oct 20-21 | Worked All Germany Contest, 80-10m, CW/Phn, <a href="http://www.darc.de">www.darc.de</a>  |
| Oct 20-21 | Stew Perry Topband Challenge, 160m, CW, <a href="http://www.kkn.net/stew">www.kkn.net/stew</a>  |
| Oxr 21    | Asia-Pacific Fall Sprint, CW, 20/15m, <a href="http://www.jsfc.org/apsprint">www.jsfc.org/apsprint</a>  |
| Oct 21    | UBA ON Contest, 2 Meter, CW/Phn, <a href="http://www.uba.be/en">www.uba.be/en</a>   |
| Oct 21    | RSGB RoLo, 80m, CW, <a href="http://www.rsgbcc.org/hf">www.rsgbcc.org/hf</a>  |
| Oct 21-22 | Illinois QSO Party, 160-2m, Phn, <a href="http://www.w9awe.org/ILQP.html">www.w9awe.org/ILQP.html</a>   |
| Oct 22    | Run for the Bacon QRP Contest, 160-10m, CW, <a href="http://www.qrpcontest.com/pigrun">www.qrpcontest.com/pigrun</a>                                    |
| Oct 24    | SKCC Sprint, 160-10m, CW, <a href="http://www.skccgroup.com">www.skccgroup.com</a>  |
| Oct 25    | RSGB 80-Meter Autumn Series, SSB, <a href="http://www.rsgbcc.org/hf">www.rsgbcc.org/hf</a>  |
| Oct 27-28 | ARRL EME Contest, 6m-1296MHz, CW/Digi/Phn, <a href="http://www.arrl.org/eme-contest">www.arrl.org/eme-contest</a>                                       |
| Oct 27-28 | CQ Worldwide DX Contest, SSB, 160-10m, <a href="http://www.cqww.com">www.cqww.com</a>   |
| Oct 31    | UKEICC 80-Meter Contest, CW, <a href="http://www.ukeicc.com">www.ukeicc.com</a> ♦   |

then FH/DJ7RJ from Mayotte Oct 29-Nov 6 on 160-10m using CW and SSB. QSL via his home CBA, direct or the Buro. NO LoTW or ClubLog. **Also:** Stefan/DL9HA, will join Willi on Reunion (but not Mayotte)

working SSB and FT8.

**RWANDA (9X)** – Members of the Italian DX Team will sign 9XØT til Oct 10 and will also use a second call, 9XØY on FT8 only in the DXpedition mode. Suggested freqs

are: CW – 1826, 3530, 7025, 10115, 14030, 18068, 21030, 24890 and 28030 kHz; SSB – 3775, 7090, 14260, 18128, 21260, 24950 and 28460 kHz; RTTY – 14084 kHz (only); FT8 – 7056, 10131, 14090, 18095, 21091, 24911 and 28091 kHz. QSL via I2YSB direct only. More at <<http://www.i2ysb.com/idx>>.

**SOMALIA (60)** – Ali/EP3CQ will operate when he has installed his station on SSB (15 and 20m 1800-2000 East Africa

Time (EAT). More details forthcoming.

**TRISTAN DA CUNHA (ZD9) (AF-029)** – Steve/G4EDG is now signing ZD9CW til Oct 22 with mainly CW and RTTY, but some SSB too (No FT8) on 40-15m and possibly 80m later. QSL via LZ1JZ. Will upload logs to LoTW during the operation if possible.

**VIETNAM (XV9)** – Jun/JH4RHF/OE1ZKC will sign XV9RH Oct 10-16 limited (due to work) on various HF bands using mainly CW. QSL via OE1ZKC.

**VIETNAM (XV)** – William "BJ"/WA7WJR, will sign XV9WJR, from Vung Tau, Con Son Is (AS-130), and Phu Quoc Is (AS-128) Oct 3-27 mainly on 40/20/15m using CW, some PSK31, maybe phone. Freqs: 7.1 MHz; 14.350 MHz; primarily 14.028 and 14.014; and 21 MHz -21.450 MHz. Will also be in the Oceania CW DX Contest (Oct 13-14). QSL via his home CBA direct. Will upload his log to LoTW from home. Updates and pictures, see QRZ.com. ♦

## 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, plus meetings, etc., 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@arrrl.net](mailto:ke4maj@arrrl.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](mailto: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](mailto: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@arrrl.net](mailto:wx4gps@arrrl.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@arrrl.net](mailto:wa4lav@arrrl.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 (38°3'34" N 84°43'11" W). 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](mailto: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** – Meetings are the same schedule as Bluegrass 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.

**Greater Mason County ARA** meeting, 7:00 PM, second Tuesday each month, Maysville Community College Science Building.

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

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

**The Jessamine County ARES Net** – Tuesdays at 7:30 PM, 145.490 Repeater, **Gary Britten W4GNB** net control.

**The Madison County ARES Net**, 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 on 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 to my attention, **Bill DeVore/N4DIT**, in care of Bluegrass ARS, Inc., PO Box 4411, Lexington, KY 40544-4411, or e-mail to [billdit@twc.com](mailto:billdit@twc.com).



## Minutes of the Board of Directors Meeting, August 20, 2018

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

The August, 2018, Directors' Meeting was called to order at 7:04pm by president **Andrew Cook, KF4OWP**.

In attendance were: First Vice President – **Bill Fuqua, WA4LAV**; Second Vice President – **James Schlessler, WA9MED**; Treasurer – **John Barnes, KS4GL**; Secretary – **Bruce Campbell, KM4EHU**; Director-at-Large – **David Richardson, W9KHZ**, and **Tim Kunkel, KF4MPM**. MARS Representatives **Barry Jackson, WB4N**, and **Harvey Frye, AA4HF**, plus **Bill Weaver, WE5P**, **Bill DeVore, N4DIT**, **Bart Breeding, KB4FEE**, and **Michael Saulsbury, WB0JZO**, were also present.

**Treasurer John Barnes, KS4GL**, reported that no new applications for membership were received during the past month.

**Treasurer John Barnes, KS4GL**, submitted the summary treasurer's report of amounts available in deposits as of July 31, 2018.

### Checking account:

General fund: \$ 8,131.86  
 Coax/repeater: 1,164.64  
 Education: \$ 1,909.29  
 Total \$11,205.79  
 PayPal account: \$ 3,029.45  
 Savings account: \$ 200.68  
 Total balance of accounts:  
 \$14,435.92

**James Schlessler, WA9MED**, moved, and **Tim Kunkel, KF4MPM**, seconded that the treasurer's report be accepted, which was approved unanimously.

**Secretary Bruce Campbell, KM4EHU**, reported that copies of the current Bylaws were e-mailed to new members: **Shawn Young, KN4NOM**; **Wisam Owias, KN4NIN**; and **John Phillips, KN4NIP**.

### Committee Reports:

**Contest: (Pete Kragh, K2UPD)**; (no report).

**Education: Bill Fuqua, WA4LAV**, reported that **Pete Kragh, K2UPD**, and **Bill Weaver, WE5P**, have completed the Tuesday evening Morse Code classes, and are considering an on-the-air slow-speed code net.

**Emergency Preparedness:** The committee's chairman position is currently vacant, and volunteers for the committee will be considered. This committee is the club's liaison with the Red Cross.

**Hamfest: David Richardson, W9KHZ**.

## Treasurer's Report

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

### BLUEGRASS AMATEUR RADIO SOCIETY, INC. INCOME, EXPENSES, AND ACCOUNT BALANCES AUGUST 30, 2018

|                | Checking<br>Account | Pay Pal<br>Account | Savings<br>Account | Total          |
|----------------|---------------------|--------------------|--------------------|----------------|
| <b>Income:</b> |                     |                    |                    |                |
| 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      | 1059.43             | 0.00               | 0.00               | 1059.43        |
| Education      | 0.00                | 0.00               | 0.00               | 0.00           |
| Hamfest        | 2985.85             | 0.00               | 0.00               | 2985.85        |
| Interest       | 2.24                | 0.00               | 0.03               | 2.27           |
| Miscellaneous  | 0.00                | 0.00               | 0.00               | 0.00           |
| Sales Tax      | 182.72              | 0.00               | 0.00               | 182.72         |
| <b>Total</b>   | <b>4230.24</b>      | <b>0.00</b>        | <b>0.03</b>        | <b>4230.27</b> |

### Expenses:

|                  |                |                |
|------------------|----------------|----------------|
| ARRL Dues        | 0.00           | 0.00           |
| Coax/Repeaters   | 0.00           | 0.00           |
| Donations        | 190.48         | 190.48         |
| Education        | 0.00           | 0.00           |
| Election         | 0.00           | 0.00           |
| Equipment        | 0.00           | 0.00           |
| Field Day        | 172.19         | 172.19         |
| Hamfest          | 1806.40        | 1806.40        |
| Insurance        | 0.00           | 0.00           |
| Miscellaneous    | 130.87         | 130.87         |
| Newsletter       | 0.00           | 0.00           |
| Picnic           | 0.00           | 0.00           |
| P.O. Box/Postage | 0.00           | 0.00           |
| Sales Tax        | 0.00           | 0.00           |
| Subscriptions    | 0.00           | 0.00           |
| Telephone        | 0.00           | 0.00           |
| <b>Total</b>     | <b>1937.27</b> | <b>1937.27</b> |

### Account Balances

|                      | July 31, 2018     | August 30, 2018   |
|----------------------|-------------------|-------------------|
| Checking*            | \$11205.79        | \$13498.76        |
| Pay Pal Balance      | \$ 3029.45        | \$ 3029.45        |
| Savings Balance      | \$ 200.68         | \$ 200.71         |
| <b>Total Balance</b> | <b>\$14435.92</b> | <b>\$16728.92</b> |

### \*Fund Specific Balances (Checking)

|               |                   |                   |
|---------------|-------------------|-------------------|
| General       | \$ 8131.86        | \$10424.83        |
| Coax/Repeater | \$ 1164.64        | \$ 1164.64        |
| Education     | \$ 1909.29        | \$ 1909.29        |
| <b>Total</b>  | <b>\$11205.79</b> | <b>\$13498.76</b> |

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

## FINANCIAL SUMMARY FOR 2018 BARS HAMFEST

### Income:

|                             |           |
|-----------------------------|-----------|
| 213 admission tickets sold  | \$1257.00 |
| 372 door prize tickets sold | \$ 310.00 |
| 65 tables sold              | \$ 698.00 |
| Total Income                | \$2265.00 |

### Expenses:

|                    |           |
|--------------------|-----------|
| Bingo Hall rental  | \$ 500.00 |
| Grand Prize        | \$ 211.95 |
| Ernie Farmer Award | \$ 94.45  |
| Kentucky Sales Tax | \$ 128.21 |
| Total Expenses     | \$ 934.61 |
| Net Profit         | \$1330.39 |

## Financial Summary for Silent Auction at 2018 Bluegrass ARS Hamfest

|                    |           |
|--------------------|-----------|
| Auction Sales      | \$1123.00 |
| Total Income       | \$1123.00 |
| Kentucky Sales Tax | \$ 63.57  |
| Total Expenses     | \$ 63.57  |
| Net Profit         | \$1059.43 |

- 1) A total count of paid attendees had not yet been tallied.
- 2) The club cleared \$2,389.82 after sales taxes, which included \$995.86 from the silent auction of donated equipment.
- 3) General ideas and suggestions for changes in operations and administration of the Hamfest were discussed.

**Newsletter:** **Bill DeVore, N4DIT**, and **Bart Breeding, WB4FEE**. Updating and modernizing the club's web page will be studied.

**Program:** **James Schlessner, WA9MED**.

- 1) The October program is tentatively "Solar Eclipse Propagation".
- 2) The November program is Nominations for officer elections.
- 3) December program is the members gear auction and elections.
- 4) Suggestions for future program topics are welcome, and member's activities are always good subjects.

**Public Relations and Membership:** **Bart Breeding, KB4FEE**. A future membership drive is being considered.

**Repeater:** **Andrew Cook, KF4OWP**. Nothing to report.

**Shack:** **David Richardson, W9KHZ**.

- 1) **Mike Saulsbury, WB0JZO**, is looking into the installation of an antenna for the MARS operating position.
- 2) The theory and construction of simple tape measure yagi antennas is suggested as a topic for a workshop project.
- 3) **Mike Saulsbury, WB0JZO**, will look

into upgrading the firmware on the clubs TS-940 transceiver.

4) An amateur radio satellite and International Space Station contact activity is being considered for the late fall and winter season.

5) The installation of lightning arrestors will be considered during the antenna maintenance activities.

6) HF Liaison: **David Richardson, W9KHZ**. Nothing to report  
VHF Liaison: **Tim Kunkel, KF4MPM**. Nothing to report.

**Volunteer Examinations:** (**Fernie Williams, KE4MEI**). Bill DeVore, N4DIT reported eleven(11) exams were given during the Hamfest with nine(9) successful new licences attained.

**Historian:** **Bill DeVore, N4DIT**, and **Bart Breeding, KB4FEE**. Nothing to report.

**KYQRP(ad hoc) - (Roger Colvin, KJ4YSY)**. (no report).

**Library:** **John Barnes, KS4GL**. Nothing to report.

**MARS:** **Harvey Frye, AA4HF**, and **Barry Jackson, WB4N**. The MARS station accessed the Homeland Security Network.

**Trustee:** **Andrew Cook, KF4OWP**. Nothing to report.

**Bylaws:** **Andrew Cook, KF4OWP**. **Bruce Campbell, KM4EHU**, is recording the proceedings of the Bylaws committee, which is meeting at 6:00pm before the general club meeting and the Directors' meeting. The current Bylaws are being reviewed article-by article, and are revised likewise. The revisions as they are made are being submitted to the Directors for review for ultimate approval and to be presented to the club for general acceptance by vote. The Bylaws committee meeting is open to any interested BARS member.

### Old Business:

1) **James Schlessner, WA9MED**, moved, and **Bart Breeding, KB4FEE**, seconded, for the installation of the new electronic

locks replacements for the shack and the shop which was approved unanimously.  
2) The final pieces of ham equipment were received from the collections of **Richard Rigney, N4ZQT**, and **Ted Mullins, WB4ELR**.

### Old Business

1) **James Schlessner, WA9MED**, moved, and **Bart Breeding, KB4FEE**, seconded, for the installation of the new electronic locks for the shack and the shop which was approved unanimously.  
2) The final pieces of ham equipment were received from the collections of **Richard Rigney, KC4EBF**, **Wilson Wells, N4ZQT**, and **Ted Mullins, WB4ELR**.

### New Business

1) **Andrew Cook, KF4OWP**, reported that the sale of donated equipment will proceed on E-Bay under Bluegrass ARS with Paypal.

2) The annual picnic and abbreviated general meeting is scheduled for 6:00pm, Monday, September 10th at Shillito Park Shelter #2. The club will provide the main courses and members will provide cooking services.

### Upcoming BARS Schedule

September 8th, Louisville Hamfest.  
September 10th, 6:00pm Annual Picnic at Shillito Park.  
September 25th, Richmond Hamfest.  
September 17th, 6:00pm. Bylaws Committee Meeting.  
September 17th, 7:30pm. BARS Directors' Meeting.  
October 1st, 6:00pm. Bylaws Committee Meeting.  
October 1st, 7:00pm. KY-QRP Meeting.  
October 1st, 7:30pm. BARS General Meeting. Program: Solar Eclipse Propagation.

With no other business at 9:53pm, **James Schlessner, WA9MED**, moved, and **Tim Kunkel, KF4MPM**, seconded, that the meeting be adjourned, which was approved unanimously. ♦

## Minutes of the General Meeting of the Bluegrass Amateur Radio Society, Inc., September 10, 2018\*

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

The September BARS General Meeting, scheduled at the annual picnic, was postponed until the October general meeting.

The 2019 Earnie Farmer Memorial Award was presented during the picnic to club member and Director-at-Large **David Richardson, W9KHZ**, in recognition for his constant dedication and work in many of the BARS activities. ♦

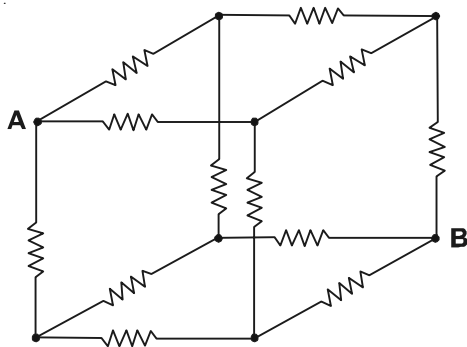


Looking Back. . . From “**HAM**news,” October 1986, page 8, 9, 14

## OLD TURKEY WITH NEW DRESSING

Now that Volunteer Examiners soon will be making up their own exam questions and Volunteer Examination Coordinator will be maintaining their own question pools (see **QST** October, 1986, pp. 52-53), here is a triad of complementary questions guaranteed to harry the Amateur Extra candidates (and maybe a lot of VE's and VEC's, too!)

1. If every resistor in the "3-D" circuit above is a 36-Ohm, 1-Watt resistor, what



is the maximum potential that may be applied across points A and B?

2. With this voltage what is the maximum total value of current between points A and B that will not exceed the wattage rating of any of the resistors?
3. How much power is consumed by the circuit at this voltage? (Hint:  $E = PR$ )

(Answers: (1) - V, (2) - A, (3) - W)

Of course we are just kidding about these being on the license exams. The FCC used to include trick questions on their exams, but hopefully the volunteer system has and will continue to stay away from these types of questions. We wouldn't wish questions like these on any sincere upgrader.

Come to the October Club meeting and I will check your answers.

Steve McCallum  
K4URX

## YOUTH IN AMATEUR RADIO

The ARRL is sponsoring a national art contest with the theme "Youth in Amateur Radio." Besides prizes, winning entries and other entries deemed appropriate will be forwarded to the world-wide competition sponsored by the International Telecommunication Union in Geneva.

Entrants must be sponsored by an ARRL member. A list of possible sponsors and entry forms are available from ARRL, Department Y, 225 Main St., Newington, CT 06111. ARRL members may also enter the competition. Entries must be received at ARRL no later than February 1, 1987.

There are three age categories, and a first, second and third prize will be awarded for each group. The age categories are: Group 1 - ages 8-12; Group 2 - ages 13-15; Group 3 - ages 16-18.

The theme, "Youth in Amateur Radio" is wide open to encourage students to use their imaginations in the following mediums: photography, drawings, paintings and other illustrations (excluding written text). No artwork should be larger than 11 x 14 inches, and each entry must be the original creation of the entrant. Entries become the property of ARRL and cannot be returned. Winners will be announced in ARRL's national membership journal, **QST**.

# 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 ..... Pete Kragh/K2UPD (859) 223-9389 (k2upd@aol.com)  
Education ..... Bill Fuqua/WA4LAV (859) 272-9523 (wlfuqu00@uky.edu)  
Emergency Preparedness (Liaison Bluegrass ARS with LFUCG DEM)  
..... David Richardson/W9KHZ (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 Schlesler/WA9MED (757) 478-2186 (wa9med@jshlesler.com)  
Public Relations and Membership ..... Bart Breeding/KB4FEE (859) 644-2216 (aratatat291@twc.com)  
Repeater ..... Andrew Cook/KF4OWP (859) 396-9930 (kf4owp@gmail.com)  
Shack ..... David Richardson/W9KHZ (859) 983-1380 (daveinlex3@gmail.com)  
Volunteer Examinations ..... Fernie Williams/KE4MAI (859) 652-3393 (ke4mai@arrl.net)

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

Historian ..... Bill DeVore/N4DIT (859) 273-8345 (billdit@twc.com)  
KY-QRP Group ..... Roger Colvin/KJ4YSY (859) 494-6268 (KJ4YSY@GMAIL.COM)  
Library ..... John Barnes/KS4GL (859) 253-1178 (jrbarnes@iglou.com)  
Shack/Repeater Trustee ..... Andrew Cook/KF4OWP (kf4owp@gmail.com)  
HF Liaison to Shack Committee ..... David Richardson/W9KHZ  
VHF Liaison to Shack Committee ..... Tim Kunkle/KF4MPM

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:  
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)

## President:

Andrew Cook/KF4OWP  
320 Given Avenue  
Lexington, Kentucky 40502  
859/396-9930  
kf4owp@gmail.com

## Second Vice-President:

James Schlesler/WA9MED  
1492 Elizabeth Street  
Lexington, Kentucky 40503  
757/478-2186  
wa9med@jshlesler.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

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



## Calendar of Ham Radio Activities for October 2018



- Mon 1 KY-QRP meeting (open discussion)**, meeting will not be held. . .will attend the Family Picnic at Shillito Park; **Bluegrass ARS Club meeting**, 6:00 PM, Pavilion No. 2, Shillito Park; Annual Family Picnic; **District 11 ARES Net** 9:00 PM 146.925 (PL-79.7) linked to 147.180 (PL-74.4) and other repeaters in the area.
- Tue 2 **Amateur Swap Net**, 145.370 (T-192.8) 8:00 PM; **"Casual Communicators Net,"** 9:00 PM Eastern, 443.325+ MHz.
- Wed 3 **Six Shooters Net**, 8:00 PM on 52.525 MHz FM (vertically polarized); **Fayette County ARES Net, 9:00 PM, 146.760 repeater.**
- Thu 4 **Meeting of Bluegrass ARS Technical Group**, 6:30 PM, Education Ctr, basement, Red Cross Building, 1450 Newtown Pike, Lexington; **Jessamine Cty ARES Net**, 7:30 PM, 145.490 Repeater, Gary Britten W4GNB net control.
- Sat 6 **Shack open 9:00-Noon; Radio Theory and Construction Workshop**, (Cancelled)
- Sun 7 **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) linked to 147.180 (PL-74.4) and other repeaters in the area.
- Mon 8 **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 9 **Amateur Swap Net** 145.370 (T-192.8) 8:00 PM; **"Casual Communicators Net,"** 9:00 PM Eastern, 443.325+ MHz;
- Wed 10 **Six Shooters Net**, 8:00 PM on 52.525 MHz FM (vertically polarized); **Fayette County ARES Net, 9:00 PM, 146.760 repeater.**
- Thu 11 **Meeting of Bluegrass ARS Technical Group**, 6:30 PM, Education Ctr, basement, Red Cross Building, 1450 Newtown Pike, Lexington; **Jessamine Cty ARES Net**, 7:30 PM, 145.490 Repeater, Gary Britten W4GNB net control.
- Sat 13 **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, sponsor W5YI VEC, Clark County EOC, liaison **Darrell Epperson/AC4YD**, eppersond@aol.com, 859-771-1834.
- Sun 14 **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 15 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) and other repeaters in the area.
- Tue 16 **Amateur Swap Net** 145.370 (T-192.8) 8:00 PM; **"Casual Communicators Net,"** 9:00 PM Eastern, 443.325+ MHz.
- Wed 17 **Six Shooters Net**, 8:00 PM on 52.525 MHz FM (vertically polarized); **Fayette County ARES Net, 9:00 PM, 146.760 repeater.**
- Thu 18 **Meeting of Bluegrass ARS Technical Group**, 6:30 PM, Education Ctr, basement, Red Cross Building, 1450 Newtown Pike, Lexington; **Jessamine Cty ARES Net**, 7:30 PM, 145.490 Repeater, Gary Britten W4GNB net control.
- Sat 20 **Shack open 9:00-Noon; Radio Theory and Construction Workshop**, 1:00-3:00 PM, basement, Red Cross Bldg, 1450 Newtown Pike;
- Sun 21 **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 22 **District 11 ARES Net** 9:00 PM 146.925 (PL-79.7) linked to 147.180 (PL-74.4) and other repeaters in the area.
- Tue 23 **Amateur Swap Net** 145.370 (T-192.8) 8:00 PM; **"Casual Communicators Net,"** 9:00 PM Eastern, 443.325+ MHz;
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- Sat 27 **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, sponsor ARRL VEC, Amer Legion Post 46 , 45 Spears Lane, Danville KY, liaison **John Wulf/K4FT**johnk4ft@gmail.com, 563-505-0339,
- Sat 28 **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, sponsor W5YI VEC, Clark County EOC, liaison **Darrell Epperson/AC4YD**, eppersond@aol.com, 859-771-1834.
- Sun 29 **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 30 **District 11 ARES Net** 9:00 PM 146.925 (PL-79.7) linked to 147.180 (PL-74.4) and other repeaters in the area.
- Tue 31 **Amateur Swap Net** 145.370 (T-192.8) 8:00 PM; **"Casual Communicators Net,"** 9:00 PM Eastern, 443.325+ MHz;