



ARRL Standard



Pray for our Troops



God Bless America!

QUA/HAMnews

November 2019

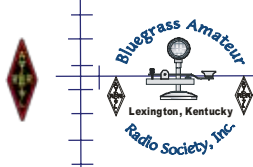
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QUICKY NOTES

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 November program will be a discussion on the proposed changes to the club's By-Laws and report from the nominating committee for club officers.



Below you will find the Club's Ebay account for the sale of the surplus equipment. Copy the URL into your browser and take a look at the items we have up for auction.

<https://www.ebay.com/sch/bluegrassars/m.html>

QUA/HAMnews

November 2019

Meeting Notice

Bart Breeding/KB4FEE,
Chair, Newsletter Committee
Bluegrass ARS, Lexington, Kentucky

The general meeting of the Bluegrass Amateur Radio Society, Inc., will be held Monday, November 4, 2019, at 7:30 PM, in Meeting Room B, second floor of the Red Cross Building, 1450 Newtown Pike, Lexington.

The program will be to receive the report from the nominating committee and additional discussion of the proposed By-Laws changes.

Do you have a topic you would like a program on or a program you would like to present? Do you have a home brewed 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 Club meeting.

The Club shack is open most Saturday mornings for anyone to operate the Club's stations, or to bring pieces of equipment out to be tuned or checked, or to learn about Amateur Radio, or to just sit around and talk

just drop in, no appointment necessary. Bluegrass Amateur Radio Society's ham shack is located in the basement of the Red Cross building at 1450 Newtown Pike Lexington, KY 40511. Entrance is down the steps (look for the BARS banner hung on the railing) at the North Side of the building.

Fayette County ARES Coordinator - Sandy Gragg

The Fayette County ARES net has resumed. Remember the Fayette County ARES net every Tuesday at 8:30 pm on the 146.94 repeater. We are looking for more folks that would help share in the net control. If you would like to Help, contact Sandy KM4PJU, at 859-699-0035

WHAT IS QRP?

by William Eric McFadden

https://wd8rif.com/what_is_qrp.htm

To those new to the hobby of Amateur Radio, hearing the term QRP often raises questions: What is QRP? Why do some hams choose to operate QRP? How can I operate QRP? These are good questions, and all are worth asking. This article will attempt to answer these questions.

What is QRP?

The Q-signal QRP means "please reduce power". Today, QRP means to operate using low power, and a ham is said to be operating QRP when his CW output power is 5 watts or less or his SSB output is 10 watts or less. At first glance 5 watts doesn't seem like much power, so how can anyone communicate at QRP levels? Actually, the signal produced by a QRPer running 5 watts isn't that much weaker than the signal from a 100 watt transmitter. By dropping output power from 100 watts to 5 watts, the signal strength at the receiving station drops by 13dB.

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If the 100 watt signal measured S8 at the receiving station, the 5 watt signal would be approximately 2 S-units down, or S5--providing solid copy unless the band is very crowded. (Similarly, the difference between a 1000 watt signal and a 5 watt signal is only 4 S-units.) Not only are domestic contacts possible when running QRP power levels, even distant DX can be worked--sometimes easily--when running QRP. For example, WD8RIF has on more than one occasion worked Australia on 40m CW while running 5 watts into a dipole.

Why do some hams choose to operate QRP?

There are probably as many reasons hams choose to run QRP as there are hams running QRP. Some hams choose to run QRP to inject a challenge back into their hobby; they may have achieved DXCC the traditional "kilowatt" way and now are chasing DXCC using only QRP power levels, or maybe they've honed their contesting skills and station to the point that operating the contest at 1500 watts--or even 100 watts--is no longer a challenge, and they now try to "run the frequency" and "maintain the rates" while running only QRP power levels. Others hams choose to run QRP to help reduce interference on the bands. Others enjoy the ability to operate radio from "from the field" with simple and lightweight yet competent equipment. An entire QRP station consisting of a modern single-band CW transceiver, key, and antenna can fit into a pocket, yet the rig can boast receiver performance comparable to the best commercial rigs and can run for an entire weekend on a small battery, allowing operations from locations where traditional higher-power operations would be difficult or impossible due to the weight of higher-power transceivers and high-capacity power sources.

How can I operate QRP?

The easiest way to try out QRP is to turn down the output power on an existing commercial HF rig. Most commercial HF rigs have provisions, often via a front-panel control, to reduce the transmit power. If a rig lacks such a control, a simple ALC bias-supply circuit can be built to reduce the rig's output power. (Click for a circuit from QRP Power by the

ARRL.) For the home-station rig, a commercial HF rig makes a fine QRP rig--indeed, some will argue that a state-of-the-art commercial HF rig makes the best QRP rig due to the commercial rig's excellent receiver performance and QRM-fighting tools--but for field or portable use, a commercial 100 watt transceiver is too big and too battery-hungry. QRP rigs can be very small and very frugal with power requirements, and given the simple designs possible for low-power operation, QRP is a natural for the home-brewer. Good, easy-to-build designs are available in several ARRL publications as well as in books and periodicals by other publishers. Alternately, there are numerous excellent and easy-to-build kits available. For example, the "Simple Superhet Transceiver" (SST) CW transceiver kit by Wilderness Radio features a true superhet receiver, two-watts of clean RF output, a three-pole crystal filter, stable VXO tuning, and a parts count of only 80 components, circuit board, and a 1.5"x3.2"x3.5" enclosure--all for \$80. The SST is tiny and draws only 15mA on receive--so a small battery will power this rig for a long time. (URLs for Wilderness Radio and other kit suppliers can be found at the end of this article.)

While SSB can be used successfully at QRP power levels, CW is the most popular mode and is a natural for QRP due to CW's efficiency and signal-to-noise ratio performance. QRP operation can and does occur in all portions of all the bands, but much of it occurs around the "QRP Calling Frequencies":

Band	CW	SSB
160	1.810	1.910
1.843 Europe		
80	3.560	3.985
3.710 US Novice		
40	7.030	7.285
7.030 Europe		7.060
7.110 US Novice		
30	10.106	
20	14.060	14.285
15	21.06	21.385
10	28.060	28.38
28.110 US Novice		

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For those interested in QRP operations there are several organizations worth joining:

- The QRP Amateur Radio Club International (QRP ARCI) is the biggest and largest QRP organization in the world and it produces an excellent bi-monthly magazine covering the QRP scene.
- The Northern California QRP Club (NorCal), despite its name, is a world-wide organization that produces a fine quarterly magazine and sponsors design contests, produces excellent club kits, and sponsors QRP contests.
- Just as it has changed Amateur Radio, the Internet has forever changed the face of QRP operations. Thanks to the instant communications capability of the Internet, QRP operators are now part of a vibrant and growing community through the Internet QRP Club (QRP-L). QRP-L is primarily an e-mail list discussion group that discusses all aspects of the QRP hobby. QRP-L is free to join. Please note that the above list is by no means exhaustive. URLs to these organizations can be found at the end of this article.

This article was written to answer the questions "What is QRP?", "Why do some hams choose to run QRP?", and "How do I operate QRP?". QRP was defined to be operations occurring at low power. Hams choose to run QRP for numerous reasons, including to inject a challenge back into their hobby and to allow radio operations from locations where traditional higher-power operations would be difficult or impossible. QRP operations can be easy; a commercial HF rig can be used as a QRP rig and QRP rigs are simple enough that they can easily be built from scratch or from inexpensive yet high-performance kits.

Links to more information (URLs updated 2008-01-18)

Organizations:

QRP Amateur Radio Club International (QRP ARCI)
 American QRP Club
 Northern California QRP Club (NorCal)
 Internet QRP Club (QRP-L) and Archives
 The Adventure Radio Society

Kit Suppliers:

Elecraft
 Oak Hills Research
 Small Wonder Labs
 Wilderness Radio

What is QRP Amateur Radio: low power operating

https://www.electronics-notes.com/articles/ham_radio/

QRP or low power amateur radio operation provides many unique challenges for operating and for construction that can be particularly rewarding & enjoyable.

QRP Operating Includes:

QRP basics QRP equipment QRP operating

QRP or low power operation has a large and growing band of radio hams who enjoy this aspect of amateur radio. The term comes from the Q codes that were often for Morse, CW and other radio transmissions where QRP means shall I reduce power.

Even many radio amateurs whose licenses enable them to use the full legal power can often prefer QRP operation as it gives them a great sense of satisfaction and provides a whole new world of challenges in terms of amateur radio operating as well as building the equipment.

In view of the enjoyment that QRP operation provides a considerable number of radio amateurs only operate QRP, while others may have high power stations, but also operate in a QRP mode at other times to provide another dimension to their amateur radio operation.

What is QRP?

Essentially amateur radio QRP operation can be defined as operating with low power. There are defined limits for these as given below, but in reality QRP often implies more than this. Not only do people operate using QRP, but many people also build their own equipment.

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Another aspect of QRP is that many people also use wire antennas they have built and erected themselves. All of this fits with the general QRP ethos of home construction as well as the low power operation.

In view of the fact that signal strengths are lower than those of stations using higher powers, most QRP operation uses Morse, although this is not exclusively the case. Using Morse transmissions enables contacts to be made when it would not be possible using other modes. Nevertheless SSB and other modes are used for QRP operation.

Making contacts using low power transmitters may not reduce the signal levels by as much as might be expected. For example, reducing the power from 400W down to 4W output represents a reduction of 20dB. A figure of 6dB is generally taken to be equivalent to an 'S' point and therefore this power reduction represents a reduction of just over three 'S' points.

In other words, if a station running 400W (26dBW) was being received at S9 and it reduced the power to just 4W (6dBW), it would still be copied at around S6. While a QRP station might not be able to operate through many pile-ups, the figures show that it is still possible to make plenty of contacts. This is proved is reality every day on the amateur bands where many QRP contacts are made.

QRP power limits

One of the first questions about QRP operation is how low is low power operation.

The terms QRP has come to mean low power operation and in general the term has been almost universally agreed to mean ham radio operation with 5 W or less output for Morse, CW, and 10 W PEP output or less for SSB.

Although for many years there were differing definitions around the globe, most amateur radio organisations and contests embrace these as the official QRP power limits.

The term QRPP may also be seen sometimes, and this often applies to power levels under one watt.

QRP frequencies

In order to allow QRP stations to make contacts without having to compete with much higher power stations, frequencies are reserved in each of the HF amateur radio bands for QRP operation. These frequencies, which are shown in the ham radio band plans, should be avoided by high-power stations to allow those using low power to have the minimum amount of interference and hence have the best chance of making their contacts. While these frequencies are reserved for QRP operation, it does not mean that QRP stations can only use these frequencies, it only means these offer a good chance of contacting other QRP ham radio stations.

**HF BANDS QRP FREQUENCIES
AMATEUR RADIO BAND
(METRES) QRP FREQUENCY CW
MHZ QRP FREQUENCY SSB
MHZ**

160	1.843(Eu)	1.810(USA)	1.910
80	3.560	3.690(Eu)	3985(USA)
40	7.030 & 7.122(esp USA)	7.090(Eu)	
	7.285(USA)		
30	10.106 & 10.116		
20	14.060	14.285	
17	18.096	18.130	
15	21.060	21.285(Eu)	21.385(USA)
12	24.906	24.950	
10	28.060	28.365(Eu)	28.385(USA)

These frequencies are more accurately termed centres of activity and are not calling frequencies where the users moves off once contact is established. Especially when using Morse, CW it is possible to accommodate a number of stations around the same frequency.

QRP operation is a facet of amateur radio that has grown in popularity over the years. Despite the advance of technology providing ever increasingly more complex circuits and radios, the appeal of QRP is that it is possible to operate on the amateur bands with low powers, and generally more simple equipment that is often built by the owner of the station.

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In many ways it gets back to what many see as the basics of the hobby, and in this way it has a great appeal. Accordingly QRP operation will remain a major feature of ham radio for many years to come.

Equipment for QRP Ham Radio

When using QRP low power ham radio, the equipment used is often tailored to this form of operation, often being home made, low cost and approachable.

It is possible to use many forms of equipment for QRP operation. It is often possible to use the main station rig in a QRP mode, but for many people QRP operation means a little more - operating with equipment they have built themselves.

As a large number of people enjoy QRP amateur radio, there is a large variety of equipment, ready built, in kit form or circuits that can be built relatively easily.

Transmitters, receivers, antennas and also ancillary equipment like antenna tuners, SWR meters and the like are often simpler, lower cost and easier to use than some of the top end high power equipment.

QRP transmitters & transceivers

There are several options for people wanting to use QRP equipment, each has its own characteristics and will be right for some people rather than others.

- **Use existing transceiver:** It is possible on many HF transceivers to turn the output power level right down. Some give a reading of the output power, but if not, then many SWR meters also have a power measurement capability, so it is possible to check that the output power is limited to the QRP maximum, or possibly lower if that is needed.

The advantage of taking this approach is that if an HF transceiver is already available, then no further equipment is needed and no changes need to be made within the shack.

- **Buy a purpose built QRP transceiver:** There are a number of purpose built transceivers that are available and they can be bought and put to good use. Ten Tec make a number of QRP HF transceivers for which at least some offer excellent performance and some have possibly the best CW break-in or QSK capability - you can hear between the dots at 25 words a minute and more.

Typical commercially made QRP transceiver Tec Tec is not the only manufacturer of QRP equipment by a long way. Other famous names like MFJ and many others offer ready built equipment that performs well. However like any purchase, it is necessary to check out the data sheets and reviews

- **Build a kit:** One of the joys of QRP is that equipment can be very simple and this makes it ideal for home constructing. There are many kits available from a variety of sources for transmitter and transceiver kits. These kits can reduce the costs and also give a real sense of achievement when they are built and working. It is for this reason that amateur radio QRP operation is very popular. A variety of kits are even available via Amazon.

- **Build from scratch:** There are also many circuits available for which the components can be bought separately and then the circuit can be built. There are circuits for both QRP transmitters and transceivers. With the focus generally being on Morse or CW operation, this means circuits can be very much simpler than would otherwise be the case.

The fact that the focus is generally on CW / Morse operation means that circuits and equipment are very much simpler than would be the case if SSB was used for example. This reduces both the cost and complexity, bring amateur radio into the reach of many more people.

Receivers for QRP

Although QRP transmitters are also transceivers, this is not always the case by a long way. Some simple QRP transmitters may only act as transmitters and in this case a station receiver will also be needed as part of the QRP equipment line-up.

Again there are several options:

- **Use receiver from existing station transceiver:** One of the options open to many people will be the use of an existing station receiver included within the main station transceiver. If this is done, then the antenna switching will need to be accommodated in the transmitter, although this is normally the case. Using equipment that is already available, not only reduces the cost, but also means that it is faster to get up and running.

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- Use a separate receiver: Some QRP stations may use a separate receiver. It may be an older receiver sued as a second receiver for the station, or possibly bought for the purpose. There are several options open:

- Modern receiver / scanner: There are several HF receivers that are available on the market that are available to buy new or second hand. Some scanners also cover the HF bands and can be used, but check they can operate satisfactorily for this purpose.

- Old war surplus receivers: Some QRP stations like to use old vintage valve communications receivers. Although less widely seen these days, they can still provide good service.

- Build a kit receiver: There are some receiver kits tat are available - often from the same companies that manufacture QRP transmitter kits. There are two main types of receiver that are used:

- Superheterodyne receiver: The superhet radio is the form of radio receiver that is most widely used for communications applications. It requires the incoming signal is converted down to a fixed frequency intermediate stage where the majority of gain and filtering is provided. To achieve the frequency conversion a mixer and variable frequency oscillator are used. To prove the adjacent channel selectivity, sharp filters are required. IN top performance receivers high performance crystal filters are used, or alternatively digital signal processing techniques are employed. These are costly and therefore the performance of any entry level kit receiver will not meet that of more costly sets. That said adequate performance is often achievable.

- Direct conversion receiver: A direct conversion or DC receiver adopts the approach of converting the signal down to audio without the need for an intermediate frequency stage. This type of receiver is ideal for CW (Morse) reception and single side-band, but it is not simple op-amp audio filters can be incorporated, but even without a specific audio filter, signals are not heard outside the audio bandwidth.

The direct conversion receiver does have some drawbacks - one being the image response. As a signal is tuned in the beat note is heard between the

signal and the receiver local oscillator - as the receiver is tuned further into e same direction, the beat note goes to zero and then starts to rise up again.

In this way there are two positions where the signal is heard. In many instances this is not an issue, but if interference levels are high then it can make copy more difficult. Another issue is that strong off-channel signals can overload the mixer and early audio stages. Otherwise this form of receiver offers a very simple and effective approach for home construction.

- Build from scratch: This option tends to be used less these days. Although there are some good designs available, any advanced designs require a large investment in time and effort. The more basic designs can still be covered relatively easily, but may good kits are available.

Antennas for QRP

The antenna is an important part of any station. Using low power it is essential that an efficient antenna system is used, if lower power levels are being used, then it means that the performance of the antenna is even more important. Loss in signal strength from the lower power being used can be compensated by the use of a highly efficient antenna. Accordingly beams on high towers are the ideal solution for QRP stations.

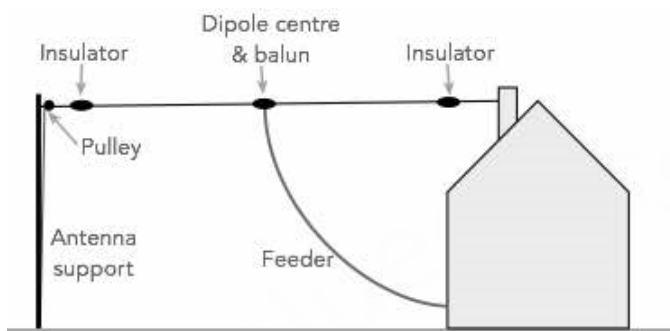
However, in keeping with the spirit of QRP many people like to make and erect their own wire antennas. Dipoles and end fed wires are very popular, and there is a great amount of scope for experimentation and improvement of the performance of these antennas.

To obtain the optimum performance, these wire antennas should be as high as reasonably possible, in the clear, i.e. not close to obstacles that might detune them or absorb the signal, and if possible in a good high location.

A typical dipole antenna might be a dipole like the one below:

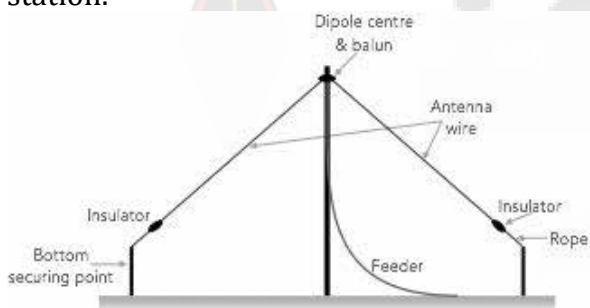
(continued on page 7)

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Typical ham band dipole antenna installation that could be used for QRP operation

As height is a key issue, the centre section of the dipole, that normally has the highest current and hence radiates most can be raised and the ends sloped away. This form of antenna known as an inverted V has many advantages for the typical QRP station.



Typical ham band inverted V dipole antenna that could be used for QRP operation

There are many antenna options that can be considered. Horizontal antennas tend to work the best. Verticals have a much lower angle of radiation and are used for much longer distance contacts. For QRP operation the path loss incurred for long distances may be too high for the power levels used and therefore they may not be as good.

QRP Operating Techniques

A guide for amateur radio QRP operating with useful hints & tips to hone your skills for making the contacts you want.

QRP operating is an ideal way to hone your skills - making the most of your station and using it to gain the best from the QRP equipment that you have to hand.

When operating QRP you must know your station

QRP operating is an ideal way to hone your skills - making the most of your station and using it to gain the best from the QRP equipment that you have to hand.

When operating QRP you must know your station and what it is capable of, how to use it to its best, and also using intellect in your operating skills to secure the contacts you want.

Key QRP operating techniques & skills

Although QRP follows the normal operating procedures for amateur radio, it does require that operating skills are honed and that ingenuity and good techniques are employed to gain the most and best contacts

- Know your station: One of the first requirements is to know your station. Know how it operates so you understand what you are doing and so you can respond quickly and also use it to its best. Practice obviously helps, but having an understanding of some of the basic performance issues can help - even down to how to get the transmitter on the same frequency as the receiver if separate are being used. Checking that the transmitter is being monitored on the right side of the receiver image if a direct conversion set is used. All these and many other little attributes can help make the operation of the station much more effective.
- Optimise the antenna: It goes without saying, that reducing the power level to the accepted QRP levels will make it harder to be heard. However the antenna is the area where some of this handicap can be reduced. Making sure the antenna is operating to its best will ensure that the most is made of the available power.
- CW or phone: Although it is possible to use both CW (Morse) and Phone (SSB), I have always found CW to be far more effective. It is possible to gain many more contacts using QRP on CW than SSB.
- Call other stations: Calling other stations rather than calling CQ works far far better. Normally other stations respond to CQ calls when the signals are strong and there is some compelling reason to call. By selecting a station to call, the chances of a response are much higher.

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Bruce Draper, AA5B, aa5b.corral@gmail.com

Contest Corral

November 2019

Check for updates and a downloadable PDF version online at www.arrl.org/contests. Refer to the contest websites for full rules, scoring information, operating periods or time limits, and log submission information.

Start - Finish		Bands	Contest Name	Mode	Exchange	Sponsor's Website		
Date-Time	Date-Time							
1	0600	1	0859	3.5, 7	Silent Key Memorial Contest	CW	RST, ITU Zone or SK call sign you wish to recognize	www.skmc.hu/en/rules.html
2	0600	2	1800	3.5-28	IPARC Contest, CW	CW	RST, serial, "IPA" and state	www.iparc.de
2	1200	3	1200	1.8-28	Ukrainian DX Contest	CW Ph	RS(T), 2-letter oblast or serial	urdxc.org/rules.php?english
2	2100	4	0259	1.8-28	ARRL Sweepstakes Contest, CW	CW	Serial, Precedence (Q/A/B/U/WS), your call, check, section	www.arrl.org/sweepstakes
3	0600	3	1800	3.5-28	IPARC Contest, SSB	Ph	RST, serial, "IPA" and state	www.iparc.de
3	0800	3	1200	Any	EANET Sprint	CW Ph Dig	RS(T)	fedlea.org/news/?news=20191103
3	0900	3	1700	3.5-28	High Speed Club CW Contest	CW	RST, mbr or "NM"	www.highspeedclub.org
4	2000	4	2059	3.5	RSGB FT4 Contest Series	Dig	Signal Report, 4-char grid square	www.rsgbcc.org/hf
5	0200	5	0400	3.5-28	ARS Spartan Sprint	CW	RST, SPC, power	arsqrp.blogspot.com
6	2000	6	2100	3.5	UKEICC 80-Meter Contest	Ph	4-char grid square	www.ukelcc.com
7	1800	7	2200	28	NRAU 10-Meter Activity Contest	CW Ph Dig	RS(T), 6-char grid square	www.nrau.net/activity-contests
7	2000	7	2200	1.8-50	SKCC Sprint Europe	CW	RST, SPC, name, mbr or power	www.skccgroup.com
9	0000	10	2359	3.5-28	WAE DX Contest, RTTY	Dig	RS, serial	darc.de/der-club/referate/referat-conteste
9	0000	11	2359	1.8-7	PODXS 070 Club Triple Play Low Band Sprint	Dig	RST, SPC	www.podxs070.com
9	0001	10	2359	28	10-10 International Fall Contest, Digital	Dig	Name, mbr or "0," SPC	www.ten-ten.org
9	0700	10	1300	3.5-28	JIDX Phone Contest	Ph	RST, Prefecture number or CQ zone	www.jidx.org/jidxrule-e.html
9	1000	10	1000	50-144, 432, 1296	SARL VHF/UHF Analogue Contest	CW Ph	RS(T), 6-char grid locator	www.sarl.org.za
9	1200	10	1200	1.8-28	OK/OM DX Contest, CW	CW	RST, 3-letter district code or serial	okomdx.crk.cz/index.php?page=english
9	1200	10	2359	1.8-50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
9	1900	11	0500	1.8-50, 144, 432	CQ-WE Contest	CW Ph Dig	Name, location code, years of service	cqwe.cbob.org/rules.html
9	2300	17	2300	1.8-7	AWA Bruce Kelley 1929 QSO Party	CW	RST, name, QTH, equipment year and type, power	www.antiquewireless.org
10	0000	10	0400	3.5-14	North American SSB Sprint Contest	Ph	Other station's call, your call, serial, name, SPC	ssbsprint.com/rules
11	0100	11	0300	1.8-28	4 States QRP Group Second Sunday Sprint	CW Ph	RS(T), SPC, mbr or power	www.4sqrp.com
11	2000	11	2130	3.5	RSGB 80-Meter Autumn Series, Data	Dig	Other station's call, your call, serial, name	www.rsgbcc.org/hf
15	1600	15	2200	3.5	YO International PSK31 Contest	Dig	RST, serial, country or YO county	www.yo5crq.ro/Rules.htm
16	0000	17	2359	50-1296	ARRL EME Contest	CW Ph Dig	Signal report	www.arrl.org/eme-contest
16	1200	17	1200	3.5-28	LZ DX Contest	CW Ph	RS(T), 2-letter district or ITU Zone	lzdx.bfra.org/rulesen.html
16	1600	16	2359	1.8	All Austrian 160-Meter Contest	CW	RST, serial, district code (of OE)	www.oevsv.at
16	1700	17	0100	1.8	REF 160-Meter Contest	CW	RST, serial, Department Code	concours.r-e-f.org/reglements/actuels
16	1900	16	2059	1.8-50	Feld Hell Sprint	Dig	RST, mbr, SPC, 4-char grid	sites.google.com/site/feldhellclub
16	1900	16	2300	1.8	RSGB 1.8 MHz Contest	CW	RST, serial, District code (if RSGB)	www.rsgbcc.org/hf
16	2100	18	0259	1.8-28	ARRL Sweepstakes Contest, SSB	Ph	Serial, Precedence (Q/A/B/U/WS), your call, check, section	www.arrl.org/sweepstakes
17	1300	17	1700	3.5, 7	Homebrew and Oldtime Equipment Party	CW	RST, serial, class	qrcc.de/contestrules/hotr.html
18	0200	18	0400	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or power	qrcontest.com/pigrun
19	0130	19	0330	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	naqcc.info
20	2000	20	2130	3.5	RSGB 80-Meter Autumn Series, SSB	Ph	Other station's call, your call, serial, name	www.rsgbcc.org/hf
23	0000	24	2359	1.8-28	CQ Worldwide DX Contest, CW	CW	RST, CQ Zone	www.cqww.com
27	0000	27	0200	1.8-28	SKCC Sprint	CW	RST, SPC, name, mbr or power	www.skccgroup.com
27	2000	27	2100	3.5	UKEICC 80-Meter Contest	CW	4-char grid square	www.ukelcc.com
28	2000	28	2130	3.5	RSGB 80-Meter Autumn Series, CW	CW	Other station's call, your call, serial, name	www.rsgbcc.org/hf
30	1200	1	1159	1.8-28	Russian WW MultiMode Contest	CW Ph Dig	RST(Q), 2-character oblast or serial	www.rdrclub.ru/news-radio

All dates refer to UTC and may be different from calendar dates in North America. Contests are not conducted on the 60-, 30-, 17-, or 12-meter bands. Mbr = Membership number. Serial = Sequential number of the contact. SPC = State, Province, DXCC Entity, XE = Mexican state. Listings in blue indicate contests sponsored by ARRL or NCJ. The latest time to make a valid contest QSO is the minute listed in the "Finish Time" column. Data for Contest Corral is maintained on the WA7BNM Contest Calendar at www.contestcalendar.com and is extracted for publication in QST 2 months prior to the month of the contest. ARRL gratefully acknowledges the support of Bruce Horn, WA7BNM, in providing this service.

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(continued from page 7, What is QRP Amateur Radio)

Anyone calling CQ with a QRP station is likely to have to make many CQ calls before there is a response.

- Listen: One of the key concepts in successful QRP operating is to listen. By listening it is possible to select the right station to call and then at the right moment.
- Select the right moment : One of the key skills for any QRP operator is to select the right moment to call - being quick to start to transmit, but not calling all the time and causing nuisance. Often jumping in just after the end of a contact or just at the end of a CQ call can help.
- Understand radio propagation & current conditions: When operating QRP, it pays to know the different characteristics of the different bands and also under what conditions contacts are best made. Sometimes it appears easier to make contacts than others. Learning about propagation, and then getting a feel for the conditions and how they can be best used will enable a far greater level of success.

- Use QRP frequencies: Special QRP frequencies are allowed on the HF bands for QRP operation for both CW and SSB. Operating around these frequencies will mean that other QRP operators are likely to be listening. Remember these frequencies are centres of activity so activity takes place on and around these frequencies. As many QRP operators use crystal controlled transmitters, they may not be on exactly the QRP frequency. In any case it is not wise for everyone to be on exactly the same frequency as interference would result. Moving off slightly can may mean that a particular interfering station may no longer be a problem.
- Use QRP frequencies: Special QRP frequencies are allowed on the HF bands for QRP operation for both CW and SSB. Operating around these frequencies will mean that other QRP operators are likely to be listening. Remember these frequencies are centres of activity so activity takes place on and around these frequencies. As many QRP operators use crystal controlled transmitters, they may not be on exactly the QRP frequency. In any case it is not wise for everyone to be on exactly the same frequency as interference would result.

(continued on page 10)

Program Schedule for 2019

David Richardson/W9KHZ, Chair, Program Committee
Bluegrass ARS, Lexington, Kentucky

The following programs are scheduled for 2019. Your input and suggestions for programs for 2019 are needed. Call David Richardson, W9KHZ at 869-983-1380 or e-mail at daveinlex3@gmail.com/.

Month	Topic	Presenter(s)	Comments
✓ January	"Winter Field Day" January 26-27, 2019	David Richardson/W9KHZ	
✓ February	CERT Program	Shelly Bendall LFUCG	
✓ March	SkyWarn National Weather Service, Louisville, KY	Joe Sullivan	
✓ April	Portable Go-Kit	David Richardson/W9KHZ	
✓ May	Antenna Theory and Design	Bill Fuqua/WA4LAV	
✓ June	"ARRL Field Day" June 22-23, 2019	David Richardson/W9KHZ	
✓ July	Lightening Protection	Jim Bacher	
✓ August	"Hamfest" August 10, 2019	David Richardson/W9KHZ	
✓ September	Annual Family Picnic	Bill DeVore	Shelter#4, Shillito Park, LEX
✓ October	Discussion of By-Laws and SOP changes		
November	Report of Nominating Committee	Additional discussion on By-Laws and SOP	
December	"Annual Auction"/Election	Andrew Cook	

(continued from page 9, What is QRP Amateur Radio)

Moving off slightly can may mean that a particular interfering station may no longer be a problem.

- **Knowing the procedures:** It helps to know not only the standard operating procedures that need to be used, but also possibly the way in which a particular station or operating works. Knowing this helps anticipate what they may want to hear, or when they will listen, etc.

Operating QRP gives some really stimulating challenges. With many QRP operators also choosing to make their own equipment, it provides an interesting element fo the hobby which fascinates many people.

Ham Radio

Ham or amateur radio is a fascinating hobby for all - it incorporates many aspects of technology and communication enabling anyone to make what they want of it.

Amateur radio or ham radio is a fascinating hobby that has captivated the interest of countless thousands and provides a stimulating technical hobby for people around the globe.

Many radio amateurs or hams enjoy talking to friends around the globe. Others enjoy contacting people in far and distant lands, while others enjoy constructing their own equipment, investigation propagation techniques, experimenting with new technology, and all based around radio.

What ever one's interest, amateur radio is a hobby that has something for everyone. It is possible to make of it what you want.

Bluegrass Amateur Radio Society (BARS) General Meeting Minutes of October 7, 2019 Red Cross Building, Lexington, Ky

The October, 2019, BARS General Meeting was called to order at 7:41pm by President Andrew Cook, KF4OWP.

Self-introductions were made by sixteen(16) licensed members and one non-licensed life member in attendance, which composed quorum.

Program:

1) President Andrew Cook, KF4OWP, presented the 2019 Ernie Farmer Memorial Award for his recognized involvement in the Lexington Amateur Radio community and to the benefit of BARS to

Bart Breeding, KB4FEE.

2) Bruce Campbell, KM4EHU, addressed the progress of the Bylaws Committee in their undertaking to formulate an updated revision of the existing club Bylaws. A copy of the proposed Bylaws will be available electronically for all club members for review, comments, and discussion before the revisions are formally presented to the membership by the Board of Directors for acceptance by ballot vote. Club and Members' News.

Sandy Gragg, KM4PJU, is recovering after a mild heart attack.

Treasurer's Report – John Barnes, KS4GL.

1. No new membership applications were pending approval.
2. The summary treasurer's report of amounts in bank accounts statements as of September 30, 2019, are:

Checking account:	
General fund:	\$9,084.58
Coax/repeater:	804.98
Education:	1,577.38
	\$11,466.94

PayPal account:	3,630.36
Savings account:	201.22
Total balance of account:	\$15,298.52

David Richardson, W9KHZ, moved and Bill Weaver, WE5P, seconded for acceptance of the Treasurer's report which was approved without objection.

Committee Announcements.

Contest – Pete Kragh, K2UPD: (no announcements).

Education – Bill Fuqua, WA4LAV: Nothing to report.

Emergency Preparedness - Sandy Gragg, KM4PJU. (no announcements).

Hamfest – David Richardson, W9KHZ: Nothing to report.

Newsletter – Bart Breeding, KB4FEE: Nothing to announce.

Program – David Richardson, W9KHZ:

The November program will be "Nominations for 2020 Officers".

Public Relations and Membership – Bart Breeding, KB4FEE: Nothing to announce.

Repeater – Andrew Cook, KF4OWP: Bill Fuqua, WA4LAV, reported

that Southern Communications will retune the duplexers in the future. Also, the replacement

(continued on page 15)

Bluegrass Amateur Radio Society (BARS) General Meeting Agenda November 4, 2019

- I. Call meeting to order.
- II. Recognition:
 - a. Welcome and self-introduction of members and visitors.
 - b. New licensees.
- III. Trivia Question: Terry Layman, N6OKR.
- IV. Program Presentation: 1) Nominations for 2020 Officer Candidates. (New Business)
Election Rules for Ballots.
Eligibility for Voting.
2) New Bylaws, Bruce Campbell, KM4EHU. (New Business)
- V. Members' news (time permitting).
License upgrades.
Birthdays this month.
Sick-call.
Expeditions and travels.
New equipment, and used equipment for sale or trade.
Moves and relocations.
ARRL and other clubs' news.
- VI. Treasurer's report – John Barnes, KS4GL:
 1. New membership applications: Chris Dudley, W4DVD.
 2. Financial.
- VII. Old Business.
 - a. Donated equipment status.
 - b. Antenna maintenance activities.
 - c. Open discussion.
- VIII. New Business:
 - a. Nominations Committee for 2020 Officer Candidates.
 - b. Recommendation of Revised Bylaws for Ballot Vote.
 - c. Open Discussion
- IX. Committee chair comments and announcements: (time permitting)
 - Contest – Pete Kragh, K2UPD.
 - Education – Bill Fuqua, WA4LAV.
 - Emergency Preparedness – Sandy Gragg, KM4PJU.
 - Hamfest – David Richardson, W9KHZ.
 - Newsletter – Bart Breeding, WB4FEE.
 - Program – David Richardson, W9KHZ.
 - Public Relations and Membership – Bart Breeding, WB4FEE.
 Repeater – Andrew Cook, KF4OWP.
 - Shack – David Richardson, W9KHZ.
 - Volunteer Examinations – Fernie Williams, KE6MAI.
 - Historian – Bill DeVore, N4DIT.
 - Library – John Barnes, KS4GL.
 - MARS – Harvey Frye, AA4HF; Barry Jackson, W4BN.
 - Trustee: Shack – Andrew Cook, KF4OWP; VHF Repeater – Andrew Cook, KF4OWP.
 - Bylaws – Andrew Cook, KF4OWP.
- X. Special Interest Groups and Service Groups comments and announcements: (time permitting)
- XI. Trivia Question Results.
- XII. Next BARS Meeting Schedules (at Red Cross Building, Newtown Pike, Lexington, Ky.):
 - November 18th, 6:00pm - Bylaws Committee Meeting.
 - November 18th, 7:30pm - Directors' Meeting.
 - December 2nd, 6:00pm - Bylaws Committee Meeting.
 - December 2nd, 7:30pm - BARS General Meeting . Program: Elections of 2020 Officers.
 - December 16th, 6:00pm - Bylaws Committee Meeting.
 - December 16th, 7:30pm - Directors' Meeting.
- XIII. President's comments and announcements.
- XIV. Motion for adjournment.

**Bluegrass Amateur Radio Society (BARS)
Directors' Meeting Minutes of September 23,
2019**

Red Cross Building, Lexington, Ky.

The September, 2019, Directors' Meeting was called to order at 7:33pm by First Vice President Bill Fuqua, WA4LAV.

In attendance were:

- 2nd Vice President – David Richardson, W9KHZ;
- Treasurer – John Barnes, KS4GL;
- Secretary – Bruce Campbell, KM4EHU;
- Directors-at- Large – Tim Kunkel, KF4MPM, Mark Elliott, KN4HVX;
- plus MARS Representative Harvey Frye AA4HF, and also Bart Breeding, KB4FEE, and Brad James, WA4HBM.

Treasurer's Report – John Barnes, KS4GL.

1. No Membership Applications were received since the August Directors' Meeting.
2. Summary Treasurer's Report as of August 31, 2019:

Checking account:	
General fund:	\$9,606.08
Coax/repeater:	804.98
Education:	1,577.38
	\$11,988.44
PayPal account:	3,636.32
Savings account:	201.18
 Total balance of accounts	 \$15,825.94

These amounts reflect the deposits of proceeds from the Hamfest.

David Richardson, W9KHZ, moved and Tim Kunkel, KF4MPM, seconded that the Treasurer's Report be accepted which was approved without objection.

Committee Reports.

Contest: Pete Kragh, K2UPD. (no report)

Education: Bill Fuqua, WA4LAV.

- 1) Bart Breeding, KB4FEE, and David Richardson, W9KHZ: The Technician Class License study session has eight(8)students in Wednesday class at the Red Cross Building. One of the students has already passed the license exam.
- 2) The regularly scheduled Saturday afternoon Radio theory and Construction Workshop will be discontinued. The will meet for any.

special interest or project that is suggested in advance.

Emergency Preparedness: Sandy Gragg, KM4PJU.

The Fayette County network convenes at 8:30pm Wednesday evenings on the 146.940-mhz repeater.

Hamfest: David Richardson, W9KHZ. Nothing to report.

Newsletter: Bart Breeding, WB4FEE. The agenda for the upcoming monthly Open General Meetings will contained in the Newsletter in time before the meeting.

Program: David Richardson, W9KHZ. The October Program will be "Revised Bylaws" and presentation of the Ernie Farmer Award.

Public Relations and Membership: Bart Breeding, WB4FE.

The Boy Scouts have contacted BARS about participation in the Jamboree on the Air (JOTA) during the third weekend in October.

Repeater: Andrew Cook, KF4OWP.

Bill Fuqua, WA4LAV, reported that Southern Communications will re-tune the diplexers cavities sometime in the future. The repeater may be off the air during that time. There will be a \$50.00 fee for the service.

Shack: David Richardson, W9KHZ.

- 1) The change-out of the shack desktop computers is being considered.
- 2) A new 80m/40m/20m fan dipole will be installed off the main tower.
- 3) Maintenance work on the existing antenna systems is continuing.

HF Liaison: David Richardson, W9KHZ. Nothing to report.

VHF Liaison: Tim Kunkel, KF4MPM. Nothing to report.

Volunteer Examinations: Fernie Williams, KE4MEI.

Test Session will be held in Winchester on October 12th.

Historian: Bill DeVore, N4DIT. Nothing to report.

Library: John Barnes, KS4GL. Nothing to report.

MARS: Harvey Frye, AA4HF, and Barry Jackson, WB4N.

The MARS station acted as control during the last network.

(continued on page 13)

(continued from page 12, Director's meeting 9-23-19)

Trustee: Andrew Cook, KF4OWP. Dave Richardson, W9KHZ, will

assume the responsibility of Trustee for the BARS station licenses as soon as the FCC Form-605's are completed and filed.

Bylaws: Andrew Cook, KF4OWP. Secretary Bruce Campbell, KM4EHU,

1. Reported that the revisions to the Bylaws will be submitted to the Directors at their October meeting for preliminary approval before they are presented to a general membership vote for adoption. The Bylaws committee meeting is open to any interested BARS member.

2. A set of BARS Standard Operating Procedures is being formulated at the Bylaws Committee meetings, and input is welcome from club members.

Old Business:

The first E-Bay sales of the donated equipment grossed \$951.00 and the club is expected to net approximately \$700.00 after expenses.

New Business:

1) The draft of the revised Bylaws will be submitted to the Directors at their October 21st meeting.

2) The ad hoc Nominations Committee will be appointed at the October 7th Open General Meeting.

3) The Ernie Farmer Award will be presented at the October 7th Open General Meeting.

Upcoming BARS Schedule:

October 21st, 6:00pm - Bylaws Committee Meeting.

October 21st, 7:30pm - Directors' Meeting.

November 4th, 6:00pm - Bylaws Committee Meeting.

November 4th, 7:30pm - BARS General Meeting.

Program: Nominations for 2020 Officers.

November 18th, 6:00pm - Bylaws Committee Meeting.

November 18th, 7:30pm - Directors' Meeting.

December 2nd, 6:00pm - Bylaws Committee Meeting.

December 2nd, 7:30pm - BARS General Meeting.

Program: Elections of 2020 Officers.

Members' Auction.

December 16th, 6:00pm - Bylaws Committee Meeting.

December 16th, 7:30pm - Directors' Meeting.

With no other business at 8:41pm, First Vice President Bill Fuqua, WA4LAV, asked for a motion to adjourn the meeting which was so moved by John Barnes, KS4GL, seconded by Tim Kunkel, KF4MPM, and accepted unanimously.

Recorded and submitted by:

Bruce Campbell, KM4EHU Secretary

**Bluegrass Amateur Radio Society (BARS)
Directors' Meeting Minutes of October 21, 2019
Red Cross Building, Lexington, Ky.**

The October 2019, Directors' Meeting was called to order at 7:36pm by President Andrew Cook, KF4OWP.

In attendance were:

1st Vice President – Bill Fuqua, WA4LAV;

2nd Vice President – David Richardson,

W9KHZ;

Treasurer – John Barnes, KS4GL;

Secretary – Bruce Campbell, KM4EHU;

Directors-at-Large – Tim Kunkel, KF4MPM,

plus, MARS Representative Harvey Frye AA4HF, and Brad James, WA4HBM.

Treasurer's Report – John Barnes, KS4GL.

1. One new membership application was received from Chris Dudley, W4DVD. David Richardson, W9KHZ moved and Tim Kunkel, KF4MPM, seconded for approval of the application which will be presented to the membership for acceptance at the November General Open Meeting. The motion was passed without objection.

2. Summary Treasurer's Report as of September 30, 2019:

Checking account:

General fund: \$9,084.58

Coax/repeater: 804.98

Education: 1,577.38 \$11,466.94

PayPal account:

3,630.36

Savings account:

201.22

Total balance of accounts: \$15,298.52

David Richardson, W9KHZ, moved and Tim Kunkel, KF4MPM, seconded that the Treasurer's Report be accepted which was approved without objection.

(continued on page 14)

(continued from page 13, Director's Meeting 10-21-19)

Committee Reports.

Contest: Pete Kragh, K2UPD. David Richardson, W9KHZ, is looking for new sites and locations suitable for winter and summer Field Day events.

Education: Bill Fuqua, WA4LAV.

1) Bart Breeding, KB4FEE, and David Richardson, W9KHZ: The Technician Class License study session has been completed. Five(5) students have attained their Amateur Radio licenses. The next license study session is expected to be held in the Spring of 2020.

2) Anyone interested in chairing the Education Committee should contact any one of the club officers.

Emergency Preparedness: Sandy Gragg, KM4PJU. (no report)

Hamfest: David Richardson, W9KHZ. Nothing to report.

Newsletter: Bart Breeding, WB4FEE. (no report)

Program: David Richardson, W9KHZ. The November Program will be "Nominations for 2020 Officers" and "Revised Bylaws".

Public Relations and Membership: Bart Breeding, KB4FE. (no report).

Repeater: Andrew Cook, KF4OWP.

1) A new location for the club's 760-repeater will be studied and considered.

2) Anyone interested in chairing the Repeater Committee should contact any one of the club officers.

Shack: David Richardson, W9KHZ.

1) The shack was open and ready for the Boy Scout Jamboree on the Air (JOTA) on Saturday, October 19th. Only adult Scout leaders participated, and no Boys Scouts attended the event.

2) A new 80m/40m/20m fan dipole will be installed off the main tower when the weather cooperates.

3) Maintenance work on the existing antenna systems is continuing as weather permits.

4) The donated FT-FX-1200 is in operation on digital modes.

HF Liaison: David Richardson, W9KHZ. Nothing to report.

VHF Liaison: Tim Kunkel, KF4MPM. Nothing to report.

Volunteer Examinations: Fernie Williams, KE4MEI. (no report)

Historian: Bill DeVore, N4DIT. (no report)

Library: John Barnes, KS4GL. Nothing to report.

MARS: Harvey Frye, AA4HF, and Barry Jackson, WB4N.

Nothing to report.

Trustee: . Dave Richardson, W9KHZ, is looking for a way to include the K4ATV license under the club's trusteeship.

Bylaws: Andrew Cook, KF4OWP. Secretary Bruce Campbell, KM4EHU,

1. A copy of the revised Bylaws has been transmitted to each member for review and subsequent discussion at the November Open General Meeting.

2. A set of BARS Standard Operating Procedures is being formulated at the Bylaws Committee meetings, and input is welcome from club members.

Old Business:

1) The rental of the storage unit for the donated equipment is being transferred directly to the club and will be canceled when the donated equipment has been disposed of.

2) The method, directions and instructions for accessing the club's surplus equipment on E-Bay will be placed in the Newsletter. A direct link to the club's E-Bay surplus equipment sales will be placed on the club's web page.

New Business:

1) A slate of candidates for the 2020 Officers' election is complete.

2) With one proposed change to the Second Vice President's duties, the approval of the revised Bylaws to be submitted to the membership at the November Open General Meeting for acceptance vote by membership ballot was moved by David Richardson, W9KHZ, seconded by John Barnes, KS4GL, and approved unanimously.

3) Current voting members as of the end of the November Open General Meeting will be eligible to receive a ballot by mail for the 2020 Officers' election. The ballots must be returned to BARS by mail or delivered in the sealed returned envelop by the beginning of the Open General December "Elections" Meeting.

(continued on page 15)

(continued from page 14, Director's Meeting 10-21-19)

Upcoming BARS Schedule:

November 4th, 6:00pm - Bylaws Committee Meeting.

November 4th, 7:30pm - BARS General Meeting.

Program: 1. Nominations for 2020 Officers.

2. Vote for revised Bylaws to be placed on Ballot.

November 18th, 6:00pm - Bylaws Committee Meeting.

November 18th, 7:30pm - Directors' Meeting.

December 2nd, 6:00pm - Bylaws Committee Meeting.

December 2nd, 7:30pm - BARS General Meeting.

Program: 1. Elections of 2020 Officers.

2. Members' Auction.

December 16th, 6:00pm - Bylaws Committee Meeting.

December 16th, 7:30pm - Directors' Meeting.

With no other business at 8:45pm, First President Andrew cook, KF4OWP, asked for a motion to adjourn the meeting which was so moved by Tim Kunkel, KF4MPM, seconded by Bill Fuqua, WA4LAV, and accepted unanimously.

Recorded and submitted by:

Bruce Campbell, KM4EHU
Secretary

(continued from page 10, General Meeting 10-07-19)

of the antenna for the repeater at UK's Anderson Hall will have to be coordinated with the University. Shack – David Richardson, W9KHZ:

1. Antenna maintenance activities are continuing on Saturday mornings as weather permits.

2. A fan dipole for 80-40-20 meters is being constructed.

3. A Yaesu FT-DX-1200 has been loaned to the club for use in the shack.

4. The shack is expected to be available for the Boy Scouts Jamboree on the Air (JOTA) on the last weekend of October.

Volunteer Examinations – Fernie Williams, KE-6MAI: (no report)

Historian - Bill DeVore, N4DIT: Nothing to announce

Librarian – John Barnes, KS4GL: Nothing to announce.

MARS – Harvey Fry, AA4HF, and Barry Jackson, WB4N: (no report)

Trustee: Shack – Andrew Cook, KF4OWP: David Richardson, K9KHZ,

will assume the club license Trusteeship as the FCC Form-605's are processed.

VHF Repeater – Andrew Cook, KF4OWP: Nothing to announce.

Bylaws – Andrew Cook, KF4OWP: The Bylaws committee lead by

Secretary Bruce Campbell, KM4EHU, will submit the current proposed revisions of the existing Bylaws to the Board of Director's at their October meeting for review.

The formulation of BARS Standard Operating Procedures is a continuous process and input for guidelines for BARS operations is open for any BARS members.

Special Interest Groups News.(none)

Old Business.

The sales of donated equipment during the 2018 and 2019 Hamfests and through E-Bay has netted approximately \$3,100. Storage costs for the large amounts of donated equipment to-date has been approximately \$3,600.

New Business.

Roger Colvin, KJ4YSY, and Loretta Colvin accepted an appointment to the ad hoc Nominations Committee to solicit a slate of candidates for the 2020 Officers' Election which will be presented at the November "Nominations" Meeting in preparation for the ballot vote at the December "Elections Meeting. With no other discussions at 8:55pm, Bart Breeding, KB4FEE, Moved and Tim Kunkel, KF4MPM, seconded that the meeting be adjourned which was unanimously approved.

The next BARS scheduled meetings and activities:

Bylaws Committee Meeting: Monday, August 19th, 6:00pm.

Directors' Meeting: Monday, October 21st, 7:30pm.

JAWS Swap Meet: Saturday October 26th, 10:00am.

(continued on page 17)

TREASURER'S REPORT

Respectfully submitted by John Barnes/KS4GL, Treasurer

**BLUEGRASS AMATEUR RADIO SOCIETY, INC.
INCOME, EXPENSES, AND ACCOUNT BALANCES
as of September 30, 2019**

	Checking Account	PayPal 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	2.58	0.00	0.04	2.62
Sales Tax	0.00	0.00	0.00	0.00
Miscellaneous	0.00	0.00	0.00	0.00
Total	2.58	0.00	0.04	2.62

EXPENSES:			
ARRL Dues	0.00		0.00
Coax/Repeaters	0.00		0.00
Donations	530.04		530.04
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	0.00		0.00
P O Box	0.00		0.00
Sales Tax	0.00		0.00
Telephone	0.00		0.00
Total	530.04		530.04

ACCOUNT BALANCES

	August 31, 2019	September 30, 2019
Checking Balance*	11988.44	11466.94
PayPal Balance	3636.32	3630.36
Savings Balance	201.18	201.22
Total Balance	15825.94	15298.52

*** Fund-specific balances in Checking Account**

General	9606.08	9084.58
Coax/Repeater	804.98	804.98
Education	1577.38	1577.38
Total Checking	11988.44	11466.94

Meeting Schedules for Area Clubs, Exam Sessions, etc.

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 10 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, 7:00PM 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 2019 schedule (10:00AM): Saturday, January, 12, Saturday, April 13, Saturday, July 13, and Saturday, October 12. Contact Liaison Darrell Epperson/AC4YD, AC4YD@arrl.net, 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 4 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 (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).

Fayette County ARES Net - Tuesday, 8:30 PM, 146.940 (-600 Tone 88.5) 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/KI4AWZnet control; and, Daily Six-Meter FM Ragchew net 7:00-9:00 PM on 52.525MHz (vertically polarized). James Peel/KG4VAR net control.

KY-QRP - Temporarily canceled.

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 26 meet at Christview Christian Church (SkyWarn). Talk-in/info on 145.430 (-600, T-203.5).

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/KO40L.

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, Bart Breeding/KB4FEE, in care of Bluegrass ARS, Inc., PO Box 4411, Lexington, KY 40544-4411, or e-mail to aratat291@twc.com.

(continued from page 15, General meeting 10-07-19)

BARS General Meeting: Monday, November 4th, 7:30pm.

Program: 2020 Officer Nominations.

Directors' Meeting: Monday, November 18th, 7:30pm.

BARS General Meeting: Monday, December 2nd, 7:30pm.

Program: 1) 2020 Officer Elections.

2) Members' Auction.

Directors' Meeting: Monday December 16th, 7:30pm.

Recorded and submitted by:

Bruce A. Campbell, KM4EH Secretary

Schedule for Volunteer Examinations in 2019-20

Harry Spark/KN4S,*
Bluegrass Volunteer Examiners
kn4s@kn4s.com

The exam schedule for 2019 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	Amer Legion Post 46	Georgetown Police Dept
1450 Newtown Pike	200 Maryland Ave	45 Spears Lane	550 Bourbon Street
Lexington KY 40509	Winchester KY 40391	Danville KY 40422	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](mailto:ke4mai@arrl.net), ke4mai@arrl.net, 859-652-3393 (www.bluegrassars.org)
 Danville - Liaison [John Wulf/K4FT](mailto:johnk4ft@gmail.com), johnk4ft@gmail.com, 563-505-0339, Wilderness Road ARC, http://www.wrarc.com
 Georgetown - Liaison [Ron Malinowski/WX4GPS](mailto:wx4gps@arrl.net), wx4gps@arrl.net, 502-542-8252
 WCARS VEC: Lexington - Liaison [Marguerite Williams/KE4MAJ](mailto:ke4maj@arrl.net), ke4maj@arrl.net, 859-489-6274 (www.bluegrassars.org)
 W5YI VEC: Winchester - Liaison [Darrell Epperson/AC4YD](mailto:AC4YD@arrl.net), AC4YD@arrl.net, 859-771-1834

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

Date and Time	VEC	Location
Nov. 9, 2019 10:00 am	Fernie Williams/ARRL	Red Cross Bldg., Newtown Pike, Lexington, KY
Dec. 10, 2019 7:00 pm	Margie Williams/WCARS	Red Cross Bldg., Newtown Pike, Lexington, KY
Dec. 14, 2019 10:00 am	Ron Malinowski/ARRL	Georgetown Police Dept., Georgetown, KY

Please find below the link to the Club's Ebay Account. Copy it into your browser and check out the items the club has up for auction.
<https://www.ebay.com/sch/bluegrassars/m.html>

Honor to the soldier and sailor everywhere, who bravely bears his country's cause. Honor, also, to the citizen who cares for his brother in the field and serves, as he best can, the same cause.

Abraham Lincoln

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 non-commercial 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.

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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 2019

- Sat 2 Shack open 9:00-Noon; Radio Theory and Construction Workshop, 1:00-3:00 PM,
- Sun 3 Amateur Television & Specialized Communications Net, 9:00 PM (146.760 Repeater); London Regional Skywarn Net, 8:00 PM, 147.180 (PL-74.4 Hz) linked to 147.180 (PL-74.4 Hz), other repeaters in the area.
- Mon 4 District 9 ARES Net 9:00 PM 146.925 (PL-79.7) linked to 147.180 (PL-74.4) and other repeaters in the area.; By-Laws Committee meeting 6:00 pm BARS General Membership meeting 7:30 pm
- Tue 5 Amateur Swap Net 145.370 (T-192.8) 8:00 PM; Fayette County ARES Net 8:30 pm It is on the LEX 94 machine ,146.940 MHZ, A NEGATIVE OFFSET, AND A PL TONE OF 88.5. "Casual Communicators Net," 9:00 PM Eastern, 443.325+ MHz;
- Wed 6 Wilderness Trail Emer Net, 8:30 pm, freq. 146.715, PL 100 ; Six Shooters Net, 9:00 PM on 52.525 MHz FM (vertically polarized);
- Thu 7 Meeting of Bluegrass ARS Technical Group, 6:30 PM, Education Ctr; basement, Red Cross Building, 1450 Newtown Pike, Lexington; District 9 ARES Net 7:15 PM 147.180 (PL-74.4) and other repeaters in the area.
 Jessamine Cty ARES Net, 7:30 PM, 145.490 Repeater, Gary Britten W4GNB net control. PARC (Clark Co.) 8:45 pm 145.43, P/L 203.5
- Sat 9 Shack open 9:00-Noon; Radio Theory and Construction Workshop, 1:00-3:00 PM,
- Sun 10 Amateur Television & Specialized Communications Net, 9:00 PM (146.760 Repeater); London Regional Skywarn Net, 8:00 PM, 147.180, PL-74.4 Hz) and other repeaters in the area
- Mon 11 District 9 ARES Net 9:00 PM 146.925 (PL-79.7) linked to 147.180 (PL-74.4) and other repeaters in the area. Jessamine Amateur Wireless Society meeting, 7:00 PM, St. Joseph/R.J. Corman
- Tue 12 Amateur Swap Net 145.370 (T-192.8) 8:00 PM; Fayette County ARES Net 8:30 pm It is on the LEX 94 machine ,146.940 MHZ, A NEGATIVE OFFSET, AND A PL TONE OF 88.5. "Casual Communicators Net," PM Eastern, 443.325+ MHz;
- Wed 13 Wilderness Trail Emer Net, 8:30 pm, freq. 146.715, PL 100 ; Six Shooters Net, 9:00 PM on 52.525 MHz FM (vertically polarized);
- Thu 14 Meeting of Bluegrass ARS Technical Group, 6:30 PM, Education Ctr; basement, Red Cross Building, 1450 Newtown Pike, Lexington; District 9 ARES Net 7:15 PM 147.180 (PL-74.4) and other repeaters in the area.
 Jessamine Cty ARES Net, 7:30 PM, 145.490 Repeater, Gary Britten W4GNB net control. PARC (Clark Co.) 8:45 pm 145.43, P/L 203.5
- SAT 16 Shack open 9:00-Noon; Radio Theory and Construction Workshop, 1:00-3:00 PM,
- SUN 17 Amateur Television & Specialized Communications Net, 9:00 PM (146.760 Repeater); London Regional Skywarn Net, 8:00 PM, 147.180 (PL-74.4 Hz) and other repeaters in the area.
- Mon 18 Bylaws Committee Meeting, 6:00 pm ; Directors' Meeting: 7:30 pm; Jessamine Amateur Wireless Society meeting, 7:00 PM, St. Joseph/R.J. Corman ; By-Laws Committee meeting 6:00 pm; Director's Meeting 7:30 pm
 Ambulatory Care Center, 1250 Keene Road,, Nicholasville;
- Tue 19 Amateur Swap Net 145.370 (T-192.8) 8:00 PM; Fayette County ARES Net 8:30 pm It is on the LEX 94 machine ,146.940 MHZ, A NEGATIVE OFFSET, AND A PL TONE OF 88.5. "Casual Communicators Net," 9:00 PM Eastern, 443.325+ MHz;
- Wed 20 Wilderness Trail Emer Net, 8:30 pm, freq. 146.715, PL 100 ; Six Shooters Net, 9:00 PM on 52.525 MHz FM (vertically polarized);
- Thu 21 Meeting of Bluegrass ARS Technical Group, 6:30 PM, Education Ctr; basement, Red Cross Building, 1450 Newtown Pike, Lexington; District 9 ARES Net 7:15 PM 147.180 (PL-74.4) and other repeaters in the area.
 Jessamine Cty ARES Net, 7:30 PM, 145.490 Repeater, Gary Britten W4GNB net control. PARC (Clark Co.) 8:45 pm 145.43, P/L 203.5
- Sat 23 Shack open 9:00-Noon; Radio Theory & Construction Workshop, 1:00-3:00 PM, basement, Red Cross Bldg, 1450 Newtown Pike;
- Sun 24 Amateur Television & Specialized Communications Net, 9:00 PM (146.760 Repeater); London Regional Skywarn Net, 8:00 PM, 147.180 (PL-74.4 Hz) and other repeaters in the area.
- Mon 25 District 9 ARES Net 9:00 PM 146.925 (PL-79.7) linked to 147.180 (PL-74.4) and other repeaters in the area.
- Tues 26 Amateur Swap Net 145.370 (T-192.8) 8:00 PM; Fayette County ARES Net 8:30 pm It is on the LEX 94 machine ,146.940 MHZ, A NEGATIVE OFFSET, AND A PL TONE OF 88.5. "Casual Communicators Net," 9:00 PM Eastern, 443.325+ MHz
- Wed 27 Wilderness Trail Emer Net, 8:30 pm, freq. 146.715, PL 100 ; Six Shooters Net, 9:00 PM on 52.525 MHz FM (vertically polarized);
- Thur 28 Meeting of Bluegrass ARS Technical Group, 6:30 PM, Education Ctr; basement, Red Cross Building, 1450 Newtown Pike, Lexington; District 9 ARES Net 7:15 PM 147.180 (PL-74.4) and other repeaters in the area.
 Jessamine Cty ARES Net, 7:30 PM, 145.490 Repeater, Gary Britten W4GNB net control. PARC (Clark Co.) 8:45 pm 145.43, P/L 203.5
- Sat 30 Shack open 9:00-Noon; Radio Theory and Construction Workshop, 1:00-3:00 PM,