



# RF News

**BATON ROUGE AMATEUR RADIO CLUB**

P.O. BOX 4004, BATON ROUGE, LA 70821

brarc.org



## 2019/02

Greetings everyone!!

I just wanted to thank everyone for coming out to the club meeting on January 29th. The program presentation for the meeting was an excellent presentation via Skype with Tim Duffy (K3LR). The K3LR contest station was really something to see. Most of us amateur radio operators would only dream of even having access to a station of that sort much less owning one. Thank you to Tim for taking time out of his schedule to show us his contest station. Next month, we will have a Skype presentation with Martin Jue (K5FLU). Martin is the owner and president of MFJ Enterprises in Starkville, Mississippi. MFJ got its start in 1972 while Martin was in college. The first product that was offered by MFJ was an audio filter for CW operation. Next month's presentation will be about "The Early Days of MFJ. I am very much looking forward to that. Thank you to Robin Hudson (KK5RH) for arranging the Skype presentations with Tim Duffy of DX Engineering, Martin Jue of MFJ as well as Bob Naumann (W5OV) of DX Engineering who did a Skype Presentation for the club in October of 2018. We will have more great programs throughout the year and I will write a description of them in future editions of the RF News.

There will be a new Technician license course taught by Brett Hebert (KG5IQU), Buddy Brown (N5BUD) and others. The class will run from Thursday March 7th and will conclude with a license exam on Thursday April 25th. I would also like to congratulate all of the new amateur radio operators who passed their Technician license exam prior to the last club meeting on January 29th as well as those who upgraded their present license at our quarterly VE session.

Keep a watch on the club website ([www.brarc.org](http://www.brarc.org)) as well and also give a listen to our 2-meter public service net which is held on the 146.790 mhz 2 meter repeater on Sunday Evenings at 8:30 pm for future club activities and announcements. I would also like to thank Dan Lott (KF5TQN) for agreeing to become our newest net control operator. Dan is filling the void left in August 2016 when our previous second week NCS George Gelpi (W5GG) was forced to discontinue his NCS service due to the 2016 flood in which his home was badly damaged. His ham radio gear did survive the flood. We hope to hear him on 10 meters again soon.

That's about it for this month. Please join us for breakfast on Wednesday and Saturday mornings at The Warehouse restaurant as well as James Grill in Denham Springs on Saturday mornings. We also meet on Friday Mornings for breakfast at Frank's Restaurant on Airline Highway just north of what used to be Cortana Mall. We eat a lot in this club. All of the breakfast meetings start around 6:30 AM.

### **PRESIDENT**

**Bill Smith, KE5TA**

### **VICE PRESIDENT**

**Todd Huovinen, AB5TH**

### **SECRETARY**

**Brett Hebert, KG5IQU**

### **TREASURER**

**Tom Harrell, KE5LVQ**

### **DIRECTORS**

**Jennifer Bordelon, K5NMT**

**Thornton Cofield, K5HLC**

**Jerry Cloutre, AG5AY**

**Ken Shutt, W5KQ**

**Robin Hudson, KK5RH**

**Vernon Morris, AA5O**

**Brook Samuel, N5DGK**

### **REPEATERS**

146.790 -

444.400 + PL TONE 107.2

### **NETS**

**BRARC PUBLIC SERVICE NET**

**SUNDAY 8:30 PM**

146.790 (PL TONE 107.2)

**ARES NET**

**SUNDAY 8 PM**

146.790 (PL TONE 107.2)

**10 METER NET**

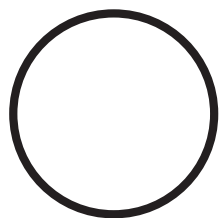
**MONDAY 7:30 PM**

**28.450 MHZ USB**

**A Word from the Vice President**

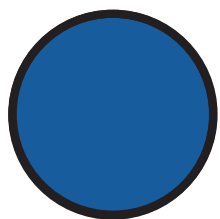
**Todd Huovinen, AB5TH**

# Upcoming Events



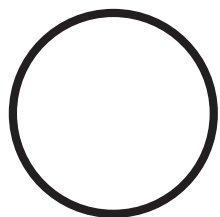
## HAMFESTS

FEBRUARY 23, 2019 - [ORANGE HAMFEST, ORANGE, TX](#)  
MARCH 1-2, 2019 - [BirmingHAMfest, BIRMINGHAM, AL](#)  
MARCH 8-9, 2019 - [ACADIANA HAMFEST, RAYNE, LA](#)  
APRIL 27, 2019 - [NORTHEAST LA HAMFEST, WEST MONROE, LA](#)



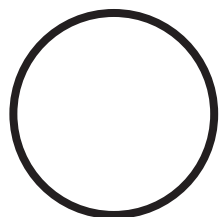
## CLUB MEETINGS

FEBRUARY 26, 2019 - CLUB MEETING, BLUEBONNET LIBRARY  
7 PM PROGRAM: MFJ ENTERPRISES, MARTIN JUE  
MARCH 12, 2019 - BRARC BOARD MEETING, FAIRWOOD LIBRARY  
6:30 PM  
MARCH 26, 2019 - CLUB MEETING, BLUEBONNET LIBRARY



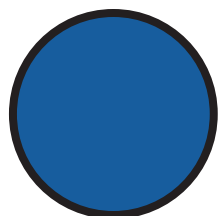
## CONTESTS/OPERATING EVENTS

MARCH 2-3, 2019 - [INTERNATIONAL DX PHONE CONTEST](#)  
MARCH 16, 2019 - LA QSO PARTY  
APRIL 14, 2019 - [ROOKIE ROUNDUP - SSB](#)



## NETS

BRARC PUBLIC SERVICE NET - SUNDAY 8:30 PM 146.790 (PL TONE 107.2)  
ARES NET - SUNDAY 8 PM 146.790 (PL TONE 107.2)  
10 METER NET - MONDAY 7:30 PM 28.450 MHZ USB



## TECH CLASSES

THURSDAYS STARTING MARCH 7, 2019 - EBRP MAIN LIBRARY 2ND FLOOR

# Special Service Club



Did you know that BRARC is an ARRL Special Service Club? The ARRL defines a Special Service Club (SSC) as one that exists to go above and beyond for their communities and for Amateur Radio. They are "the leaders in their Amateur Radio communities who provide active training classes, publicity programs and actively pursue technical projects and operating activities."

In order to receive this designation, the club must provide examples of New Ham Development and Training, Public Relations, Emergency Communications, Technical Advancement, and Operating Activities. We meet these requirements by holding our Technician Licensing classes twice a year, participating in Field Day each June, operating several times throughout the year on the USS Kidd, having speakers talk on operating modes, offering building opportunities, and more. The club works to improve the visibility of Amateur Radio in the Baton Rouge community by participating in local events like Astronomy Day at the Highland Road Park Observatory and Mini Maker Faire at the Main Library.

Participation in these events is always welcomed. Help us keep our Special Service Club designation by teaching a topic in one of the Technician classes, operating on the USS Kidd, or presenting your favorite contest or mode at a future club meeting.

Source: <http://www.arrl.org/ssc-application>

## REMINDER:

Annual Club Dues are **DUE!**

\$25

Checks, cash or credit cards are accepted at any club meeting.

➡ NEW OPTION! [Pay online at brarc.org](http://brarc.org) ⬅

**Do you know the four words in the Club's logo?? Keep reading to find out more about them...**

# CW Practice



Our letters may run together with no spacing between the words. Or like some of us, spacing in the middle of the words. There might even be long periods of silence, leaving the other operator to wonder if to call 911. When we give a signal report, we might have a few extra dots on the 5. Our most used Q signal is QRS and our most used character is eight dots (or 10 or 12 - whatever it takes).

So even though we make lots of mistakes, we have a lot of fun! We now have 15 hams participating in our 'Slow Code' sessions. After we send a text with the frequency and time to one of our

buddies, it becomes like the commercial, "Can you hear me now?" We've done some interesting things, too. Things like bumping the tuning knob in the middle of a QSO and trying to quickly find that frequency again, or sliding our key off the desk on to the floor while sending. Makes for some interesting conversations! It doesn't matter, because once you get it in the log, you're an official CW operator.

Join us! Just send me your contact information (cell phone and email) and I'll add you to our growing list and you too can have fun in this very friendly group of CW operators. You don't have to be fast. You just have to know all the numbers and letters, or at least the important ones. Right now we're doing one-on-one scheduled QSOs and we are going slow, whatever speed you need. So if you're on the list, pick someone and text them to schedule a QSO time and frequency. Try to work everyone on the list. Get brave and just call CQ and see who answers! Soon we may try our hand at a NET. We might even want to have some sort of contest. And don't forget that very special certificate (suitable for placing in a manila folder and putting in your file cabinet) verifying at least 10 QSOs on CW with 10 different club members. Hope to catch you on the air!

For more information, contact Jerry, AG5AY at 225-276-0721

# ARRL LA Section News

## Section Manager John Mark Robertson, K5JMR

The new year has gotten off to a great start in the LA Section beginning with the Hammond Hamfest. The weather ended up nice after all and the event was well attended. Our ARRL/ARES forums were also well attended and we exchanged some good information to those in attendance. We were also able to give away some nice door prizes.

The highlight of this event was for us to honor longtime ARRL and ARES member DEC Robert "Bob" Priez, WB5FBS who retired as of January 1st. Bob was presented a plaque from both the Section as well as a plaque from Region 9 ARES presented by Ed Mason, KE5GMN who took over for Bob as the new DEC. Collins Simoneaux, W5OPS Region 9 GOHSEP also presented Bob with a very special GOHSEP cap. Bob has been a very valuable asset not only to Region 9 but the entire Section for many years and we thank Bob for his service.

Also at the Hamfest we were able to announce the 2018 ARRL LA Section Amateur of the Year as James "Jim" Ragsdale, W5LA of West Monroe. Jim was unable to attend the Hamfest so on Tuesday February 5th I was able to travel to West Monroe and attend the NorthEast LA ARC monthly meeting and present Jim with his plaque. Jim was very deserving of this award. Also at the NELARC meeting I was able to present our January Book Giveaway winner Chris Joseph, KG5SSH his ARRL publications and "goodies".... Congrats to Chris.

Speaking of the Book Giveaway....Our 1st Club winner was the Acadiana ARA. I will be at the Rayne Hamfest in March and get those books to them.....I hope many of you can attend the Hamfest in Rayne....I'm looking forward to the fellowship and of course the crawfish. We will have an ARRL/ARES forum and hope many of you will be able to attend. We will have door prizes to give away. Our SEC Jim Coleman, AI5B will be giving an excellent presentation on ARES and the changes we expect to see in the near future. Speaking of ARES; please remember that if you are a past, current or want-to-be member of ARES please go to the following link and submit your profile to ARES CONNECT: ARRL <https://arrl.volunteerhub.com/lp/la>

Once your submission has been approved you will be placed in the proper group and eventually contacted by your Region DEC or Parish EC. Our newest appointment of Corey McCrary, W5MMC is for ASEC over ARES CONNECT. Corey will be our Section Administrator and liaison to ARRL HQ for all things ARES CONNECT. I hope to see you at Rayne....



# Member Spotlight

## Todd, AB5TH



Meet Todd, AB5TH. Todd Huovinen was recently awarded the Stan Preston Award by BRARC. Stan Preston was a longtime member of BRARC. When he became a Silent Key, the club honored his good samaritan qualities by naming an annual award in his honor. This award is presented to a licensed amateur who has demonstrated continued good samaritan activities through Amateur Radio.

Todd started the hobby as a shortwave listener in 1977. While in a Radio Shack store in Grand Prairie, Texas, he saw a multi-band radio that picked up stations from around the world. Impressed that the radio was able to pick up the Voice of America (VOA) and The Armed Forces Radio and Television Service (AFRTS) inside the store with all of the florescent lighting nearby, he decided to get it.

In the early 90's, he attended Ham-Com in Arlington, Texas with a friend who had been urging him to get his license and he got his KB5TMD call on June 29, 1992. He used his Alinco DJ-580T until the limitations of a handie-talkie frustrated him enough that he purchased an old Icom 27H 45 watt 2m mobile radio. He now uses a Kenwood TS-590S as his main HF station. He upgraded to General Class in May of 2000 and to Extra Class in June of 2005.

Todd has served as president of the Southwest Dallas County Amateur Radio club twice and was a member of that club for 17 years until moving to Baton Rouge in 2009. He has been a member of the Baton Rouge Amateur Radio Club since then, as has served on the Board of Directors for many years, as well as Net Control Manager for BRARC. He was a member of the Livingston Amateur Radio Society in Denham Springs and served as net manager for 3 years and club president for one year. He is also a member of the Ascension Radio Club in Gonzales as well as the American Radio Relay League.

You can find Todd at most Amateur Radio events - those in person as well as on the air. Club and Board meetings, Nets, Breakfasts, Contests, Field Day, and many others. Oftentimes he will have his family there as well - his wife Jessica, KD5SXF, and daughter.

Congratulations Todd, AB5TH, on your recognition as the 2018 recipient of the Stan Preston Award.

# Radio Loan Program

The BRARC Radio Loan Program provides new hams the ability to get on the air quickly without the expense of purchasing their own radio. It's a way to get familiar with settings and functions before deciding which ones are important to you when ready to buy your own rig.



A variety of radios are available for loan to BRARC members for a 90-day period. Visit the club website to [view equipment and complete the application](#).

## ICOM IC-730

HF Transceiver Package

This package includes a power supply, microphone, external antenna tuner and G5RV antenna.

## IC-2100H

VHF FM Transceiver Package

This package includes a power supply, microphone, external magnetic mount 144MHz mobile antenna.

## YAESU FT-50R

Dual-Band Hand-Held Transceiver

This package includes an NC-60B charger.

# Elmers

The term “Elmer” was inspired by a ham radio operator named Elmer P. “Bud” Frohardt Jr, W9DY. In a 1971 column in QST, Rod Newkirk, W9BRD, wrote about how Bud took the time to help and mentor new Amateur Radio licensees. He wrote, “We need those Elmers. All the Elmers, including the ham who took the most time and trouble to give you a push toward your license, are the birds who keep this great game young and fresh.” Because of the time he invested into new operators, Bud was able to interest many people in “science, radio, DX, CW and electronics.”

The BRARC has some members that are available for mentoring and answering questions from new hams, or anyone who may need some additional information.

**Buddy Brown, N5BUD**

**Paul Catrou, WA4MXT**

No need to be shy when you need help. Along with these Elmers, the BRARC has a wealth of experienced operators who will help - all you have to do is ask. To help with this, simply email your questions to [elmer@brarc.org](mailto:elmer@brarc.org)

For those of you with all of that experience, share it with others. Encourage our new members with your expertise!

Source: [arrl.org/news/elmer-inspiration-elmer-bud-frohardt-jr-w9dy-sk](http://arrl.org/news/elmer-inspiration-elmer-bud-frohardt-jr-w9dy-sk)

# —BRARC

## Stan Preston & BR Awards



Photo credit: Thornton Cofield, K5HLC

President Bill Smith, KE5TA, (center) presents Todd Huovinen, AB5TH, and Brook Samuel, N5DGK, with their awards.

BRARC's Board of Directors recently presented two awards for 2018. The Board awards the Stan Preston Award and the BR Award annually. The Stan Preston award is given to a licensed Amateur that has shown continued "Good Samaritan" activities in Amateur Radio. The BR Award is given a BRARC member that has made an outstanding contribution to the advancement of Amateur Radio.

Congratulations to Todd, AB5TH for being recongized as the Stan Preston Award recipient and to Brook, N5DGK for being recognized by BRARC as the BR Award receipient.





# Meet, Eat, Drink Breakfast

There are several opportunities to get together with BRARC members. The coffee consumption is grand, as are the topics of conversation. Hope to see you there...we'll gladly push another table together for you!



**WEDNESDAYS at 7:30 AM**  
The Warehouse  
12328 S. Choctaw Dr.  
Baton Rouge



**FRIDAYS at 7:00 AM**  
Frank's  
8353 Airline Hwy.  
Baton Rouge

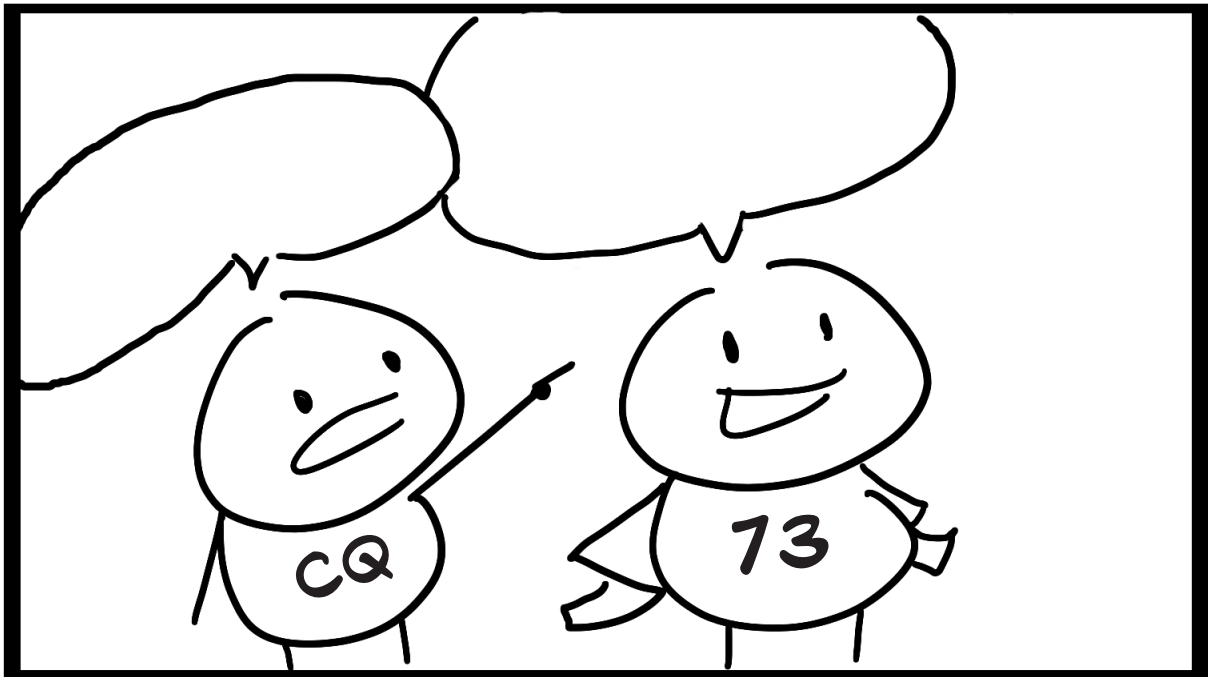


**SATURDAYS at 6:30 AM**  
James Grill     **A** The Warehouse  
205 Florida Ave     **N** 12328 S. Choctaw Dr.  
Denham Springs     **D** Baton Rouge

## Comic Contest

### Keep those captions coming!!

Let's have some fun! The comic below was drawn by Logan Hebert, KG5LLM. Two people staring off into the distance. Are they looking at an antenna? We are looking to you for an entertaining or educational caption to fill the speech bubbles of CQ and 73! Please submit your caption idea. The plan is to publish the submissions in a future edition.



# Equipment

# For Sale



The pictured equipment is for sale (as is):

IC745 with power supply  
Clipperton QRO 1.5 K amplifier  
MFJ VERSA TUNER 1.5 K  
Icom Desk Mike

**\$600 for all equipment**

Contact Bill Smith, KE5TA, at 225-388-9056.



The following equipment is for sale:

Mosley 3 element TA-33M tribander  
(20/15/10 meters)  
10' 1 1/2" mast  
Excellent condition

Contact Elmer Tatum, N5EKF, at  
[Etatum2@eatel.net](mailto:Etatum2@eatel.net)



YAESU FTdx 1200 with FFT-1 upgrade

Like New - Only 3 years old  
**\$900**

Contact Buddy Brown, N5BUD, at 225-573-2111



MFJ 949E Antenna Tuner

Used one time, Paid \$150 new  
**\$90**

Leave Message for Paul, WA4MXT, at 225-444-5307

# More Equipment For Sale

The RF News received a list of equipment that Dave Cohen, N7TC, is wanting to sell. The complete list with notes about each item was emailed to members in early February. Below is the itemized list without the detailed notes. Please contact Dave for more information at [tdavid26@cox.net](mailto:tdavid26@cox.net).

Manufacturer	Model	Asking Price
Hallicrafters	SX101 Mk III	\$125
Hallicrafters	SX-117	\$150
Hallicrafters	HT-37	\$75
Hallicrafters	SX-110	\$75
Hallicrafters	Various	Negotiable
Collins	75S3	\$175
Collins	75S1	\$100
Collins	32S1	\$125
Collins	R388	\$150
Motorola	R390A	\$175
National	NC-125	\$125
National	HRO-50T	\$150

Manufacturer	Model	Asking Price
National	HRO-60	\$175
National	NC-183	\$150
National	NC-183D	\$100
National	Various	Negotiable
Drake	R4B	\$150
Drake	MS4	\$75
Drake	2B	\$150
Drake	2AQ	\$100
Drake	T4X	\$150
Drake	AC-3	\$100
Johnson	Ranger	\$150
Heathkit	GR-81	\$75
Heathkit	IB-28	\$50
Heathkit	AR-2	\$75

# Coming Soon

The BRARC Board is very interested in publishing a Directory of its membership. This is a great resource for us to have to get to know our members, as well as putting a face with a name. In **March, April and May**, we will be collecting data and photos to be included in the directory. Be on the lookout for more information at upcoming Club meetings. And no dodging me when I try to take your picture!

## Example of Directory Info:



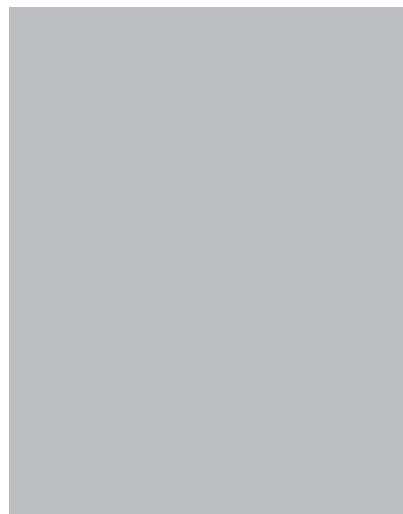
**Synomen Hebert**  
KG5IRS

Year First Licensed: 2015  
License Class: Extra  
Birthday: March 26  
Cell Phone: 225-572-1572  
Email: [Kg5irs@brarc.org](mailto:Kg5irs@brarc.org)  
Special Interests: 10m Net Monday



**YOUR NAME HERE**  
CALL SIGN

Year First Licensed:  
License Class:  
Birthday:  
Cell Phone:  
Email:  
Special Interests:



**YOUR NAME HERE**  
CALL SIGN

Year First Licensed:  
License Class:  
Birthday:  
Cell Phone:  
Email:  
Special Interests:

I am excited about putting this together. I have included the membership application in this issue. Please submit if you haven't updated your current information. The biggest hurdle will be getting all of the photos. If you have a photo you would like to use, feel free to submit it to me at [rfnews@brarc.org](mailto:rfnews@brarc.org)

# BRARC Directory



# Getting Licensed

## Technician Licensing Classes

An Amateur Radio Operator Technician Licensing Class is scheduled to start on Thursday, March 7, 2019 at the East Baton Rouge Parish Main Library on Goodwood Boulevard. The classes begin at 6 pm and will be held on Thursdays in the 2nd floor Technology Lab. The classes will conclude on April 25, 2019. There is no fee for the course.

The recommended text for the classes is Stu Turner's HamRadioSchool.com Technician & General License Course. Anyone interested in learning about Amateur Radio is welcome to attend.

Baton Rouge

Date	Topic(s)
3/7/19	0.0 Before We Begin 1.0 Operating your Radio
3/14/19	2.0 FCC Rules & Regs
3/21/19	3.0 Things to Do 4.0 Wavelength, Frequency, & Bands
3/28/19	6.0 How Radio Works 7.0 Antennas
4/4/19	8.0 It's Electric
4/11/19	9.0 Hamtronics 11.0 Space Contacts
4/18/19	10.0 Digital Modes 12.0 Avoiding Interference 13.0 Safety
4/25/19	VE Test Session

Visit <http://brarc.org/education/license-classes/> for more information on the classes.

For information on Amateur Radio visit [arrl.org](http://arrl.org) and [brarc.org](http://brarc.org).

## Future VE Sessions

**Baton Rouge** - Thursday, April 25, 2019 6 PM at EBRP Main Library

Tuesday, April 30, 2019, 6 PM at EBRP Bluebonnet Library

**Lafayette** - First Tuesday of each month, 6 PM at Lafayette Science Museum

Saturday, March 9, 2019, 9 AM at AARA Hamfest, Rayne Civic Center

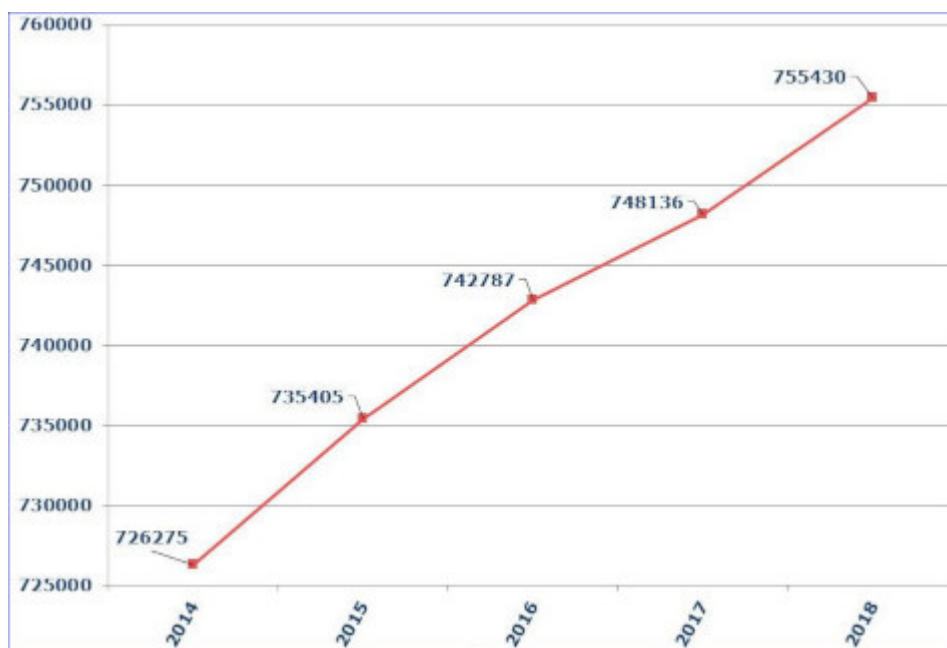
**Hammond** - Last Sunday of each month, 2 PM at North Oaks Diagnostics & E. Brent Dufreche Conference Center



# Around the Bands

## US Amateur Radio Population Grows Slightly in 2018

The US Amateur Radio population once again grew by about 1%, based upon 2017 and 2018 year-end FCC database statistics provided by Joe Speroni, AH0A. The 755,430 total licensees represent nearly 7,300 more license holders than those that were in the database at the end of 2017. Nearly 51% of the Amateur Radio population in the US -- 384,145 -- hold a Technician license. Generals are second with 175,949, and Amateur Extras number 147,369. Advanced and Novice licensee populations continue to decline, with 39,607 Advanced and 8,360 Novices, as the FCC no longer issues Advanced or Novice licenses. A more significant statistic is 31,576 new FCC licenses last year, although that's 620 fewer than came aboard in 2017.



"New amateur licenses granted by FCC are down 2% over last year," noted ARRL Volunteer Examiner Coordinator (VEC) Manager Maria Somma, AB1FM, "but this is the fifth year in a row the total has been greater than 31,000. I predict that the number of new licensees will be more than 30,000 at the end of this year as well, and I'm optimistic this trend will continue."

Upgrades also are down slightly, compared to last year -- 9,456 in 2018 versus 9,576 in 2017, she added. "For the fifth year in a row, we have conducted more than 7,000 Amateur Radio exam sessions in a year -- an important milestone for the ARRL VEC," Somma recounted. "Our program continues to provide outstanding service to the ARRL,

its members, and the entire Amateur Radio community."

ARRL VEC filed a total 30,393 license application forms last year, compared to 31,014 in 2017. That includes new, upgrade, modification, renewal, and club station filings. At 7,035 in 2018, the number of exam sessions conducted by ARRL VEC marginally trailed the 7,075 held in 2017. ARRL VEC served 34,493 exam applicants in 2018, compared to 35,352 in 2017. Exam elements administered by ARRL decreased from 47,152 last year to 45,817 this year, Somma said. Nearly 1,800 new Volunteer Examiners (VEs) have been added to the ARRL VEC program.

Source: <http://www.arrl.org/arrlletter?issue=2019-02-14>

# Hamfest Fun

## Hammond Jan 19, 2019



John Mark, K5JMR presents Robert "Bob" Priez, WB5FBS with a retirement plaque for his service. Also pictured is Ellen Priez and Ed Mason, KE5GMN.



Jerry, AG5AY and Todd, AB5TH discuss lunch options.



George, AE5FK, Brynn, KG5KRV, and Joe, KG5HZU take a break from shopping the swap tables.



Chatting at the Hammond Hamfest are a couple of Back Brusly hams Brett, KG5IQU and Bill, N5UIL.

Happy Mardi Gras!

This edition of the RF News is packed with lots of information. A big thanks to all of those who contributed to the February issue - Jerry Clouatre, AG5AY, John Mark Roberston, K5JMR, Todd Huovinen, AB5TH, and Brett Hebert, KG5IQU. As the editor, I edit the content that I receive. I look forward to getting articles from more members. I want this newsletter to contain information that you find interesting and look forward to getting. So even if you aren't able to submit an article, feel free to submit topics that you would like to know more about or see covered. I welcome all feedback and suggestions.

Please make plans to attend the club meetings at the EBRP Bluebonnet Library in the upcoming months. We will begin collecting information and taking photos for the BRARC Directory. If you prefer to choose your own photo, please email it to me at the address listed below.

Looking forward to seeing everyone at the upcoming meeting and at the Hamfest in Rayne.



**Synomen Hebert, KG5IRS**

Synomen is the newest Editor of the RF News. Please send all articles or information you'd like to see in the next issue to her at: [rfnews@brarc.org](mailto:rfnews@brarc.org)

# Amateur Radio Question Pools

The next pages contain questions from the Amateur Radio Question Pools maintained by the NCVEC. Technician, General and Extra are included. Try to answer as many or as few as you like. You may be surprised at how many or how few you are able to answer with confidence. The goal is to activate those neurons and have them warmed up. This may help have an explanation on hand when a prospective or recently licensed operator requests some assistance with an area they do not quite understand.

Good Luck

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The Question Pools are developed and maintained by the Question Pool Committee (QPC) of the NCVEC by FCC instruction and Part 97 Rules & Regulation : Sec. 97.523 Question pools All VECs must cooperate in maintaining one question pool for each written examination element. Each question pool must contain at least 10 times the number of questions required for a single examination. Each question pool must be published and made available to the public prior to its use for making a question set. Each question on each VEC question pool must be prepared by a VE holding the required FCC-issued operator license.

The question pools are normally valid for 4 years and the current Question Pools are as follows:

Element 2 - Technician - Effective July1,2018 until June 30, 2022

Element 3 - General - Effective July 1,2015 until June 30, 2019

Element 4 - Extra - Effective July1, 2016 until June 30, 2020

Each FCC Element or question pool consists of at least 10 times the number of questions required for a single examination and is released to the public normally 6 months prior to becoming effective for use in examinations to allow plenty of time for publication and study. Each element or pool has a syllabus that is broken down into main subelement sections(normally 10) and an unlimited number of sub-topic sections under each subelement. Each subelement is numbered with a prefix designating the Element number, example T1, T2 etc, followed by the subtopic letter for the section of each subelement, example T1A,T1B, etc.

The 3 parts of a Question Pool Element Syllabus are:

1. SubElement ( T, G, E )
2. SubTopic (T1A, G1A, E1A etc)
3. Questions and Answers ( T1A01, G1A01, E1A01 etc)

The actual questions are numbered in a format that reflects the element, subelement and subtopic section of the syllabus where the question is found, example: T1A01 etc. Each pool is released with the exact questions and 4 multiple choice answers and the correct answer for each question is designated in ( ) just after each question; Example: T1A01 (D) some with a rules reference [97.xxx] after the correct answer letter. On the actual exam, the correct answer letter in parentheses, and any rules citations do not appear with the question number.

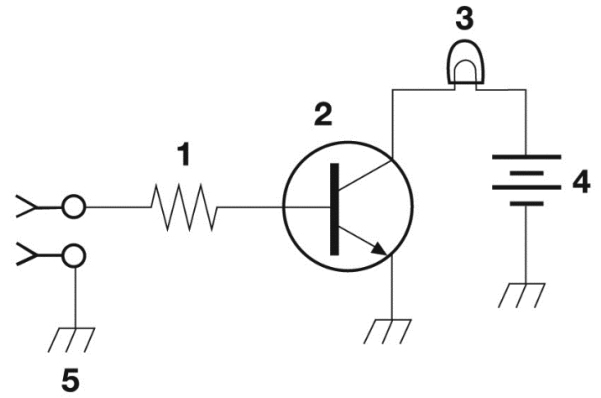
The Question Pool Committee invites submissions for use in all Amateur Question Pools. Currently, the QPC is reviewing and developing a new Element 3 - General Class question pool to become effective July 1. 2019. To provide comments or actual questions for consideration to the QPC by email to [qpcinput@ncvec.org](mailto:qpcinput@ncvec.org)

SOURCE:NCVEC National Conference of Volunteer Examiner Coordinators webpage <http://www.ncvec.org/page.php?id=338>



## Technician Question Pool July 1, 2018 to June 30, 2022

1. Who may select a desired call sign under the vanity call sign rules?  
(T1C02)
  - A. Only a licensed amateur with a General or Amateur Extra class license
  - B. Only a licensed amateur with an Amateur Extra class license
  - C. Only a licensed amateur who has been licensed continuously for more than 10 years
  - D. Any licensed amateur
2. When using tactical identifiers such as "Race Headquarters" during a community service net operation, how often must your station transmit the station's FCC-assigned call sign?  
(T1F02)
  - A. Never, the tactical call is sufficient
  - B. Once during every hour
  - C. At the end of each communication and every ten minutes during a communication
  - D. At the end of every transmission
3. What is meant by the term "NCS" used in net operation?  
(T2C02)
  - A. Nominal Control System
  - B. Net Control Station
  - C. National Communications Standard
  - D. Normal Communications Syntax
4. Which of the following is an advantage of HF vs VHF and higher frequencies?  
(T3C02)
  - A. HF antennas are generally smaller
  - B. HF accommodates wider bandwidth signals
  - C. Long distance ionospheric propagation is far more common on HF
  - D. There is less atmospheric interference (static) on HF
5. Electrical power is measured in which of the following units?  
(T5A02)
  - A. Volts
  - B. Watts
  - C. Ohms
  - D. Amperes
6. What formula is used to calculate voltage in a circuit?  
(T5D02)
  - A. Voltage (E) equals current (I) multiplied by resistance (R)
  - B. Voltage (E) equals current (I) divided by resistance (R)
  - C. Voltage (E) equals current (I) added to resistance (R)
  - D. Voltage (E) equals current (I) minus resistance (R)



**Figure T-1**

7. What is component 1 in figure T1?  
(T6C02)
  - A. Resistor
  - B. Transistor
  - C. Battery
  - D. Connector
8. What would cause a broadcast AM or FM radio to receive an amateur radio transmission unintentionally?  
(T7B02)
  - A. The receiver is unable to reject strong signals outside the AM or FM band
  - B. The microphone gain of the transmitter is turned up too high
  - C. The audio amplifier of the transmitter is overloaded
  - D. The deviation of an FM transmitter is set too low
9. What type of modulation is most commonly used for VHF packet radio transmissions?  
(T8A02)
  - A. FM
  - B. SSB
  - C. AM
  - D. PSK
10. What does the term "APRS" mean?  
(T8D02)
  - A. Automatic Packet Reporting System
  - B. Associated Public Radio Station
  - C. Auto Planning Radio Set-up
  - D. Advanced Polar Radio System
11. What health hazard is presented by electrical current flowing through the body?  
(T0A02)
  - A. It may cause injury by heating tissue
  - B. It may disrupt the electrical functions of cells
  - C. It may cause involuntary muscle contractions
  - D. All of these choices are correct

## General Question Pool July 1, 2019 to June 30, 2023

1. What is the maximum transmitting power an amateur station may use on the 12-meter band?  
(G1C02)
  - A. 50 watts PEP output
  - B. 200 watts PEP output
  - C. 1500 watts PEP output
  - D. An effective radiated power equivalent to 100 watts from a half-wave dipole
2. Which of the following modes is most commonly used for voice communications on the 160-meter, 75-meter, and 40-meter bands?  
(G2A02)
  - A. Upper sideband
  - B. Lower sideband
  - C. Vestigial sideband
  - D. Double sideband
3. Which of the following are objectives of the Volunteer Monitoring Program?  
(G2D02)
  - A. To conduct efficient and orderly amateur licensing examinations
  - B. To encourage amateur radio operators to self-regulate and comply with the rules
  - C. To coordinate repeaters for efficient and orderly spectrum usage
  - D. To provide emergency and public safety communications
4. What factors affect the MUF?  
(G3B02)
  - A. Path distance and location
  - B. Time of day and season
  - C. Solar radiation and ionospheric disturbances
  - D. All these choices are correct
5. Which of the following is an advantage of an oscilloscope versus a digital voltmeter?  
(G4B02)
  - A. An oscilloscope uses less power
  - B. Complex impedances can be easily measured
  - C. Input impedance is much lower
  - D. Complex waveforms can be measured
6. What is the purpose of a corona ball on an HF mobile antenna?  
(G4E02)
  - A. To narrow the operating bandwidth of the antenna
  - B. To increase the "Q" of the antenna
  - C. To reduce the chance of damage if the antenna should strike an object
  - D. To reduce RF voltage discharge from the tip of the antenna while transmitting
7. What happens if a signal is applied to the secondary winding of a 4:1 voltage step-down transformer instead of the primary winding?  
(G5C02)
  - A. The output voltage is multiplied by 4
  - B. The output voltage is divided by 4
  - C. Additional resistance must be added in series with the primary to prevent overload
  - D. Additional resistance must be added in parallel with the secondary to prevent overload
8. Which of the following components are used in a power supply filter network?  
(G7A02)
  - A. Diodes
  - B. Transformers and transducers
  - C. Quartz crystals
  - D. Capacitors and inductors
9. What is the name of the process that changes the phase angle of an RF signal to convey information?  
(G8A02)
  - A. Phase convolution
  - B. Phase modulation
  - C. Phase transformation
  - D. Phase inversion
10. What are the typical characteristic impedances of coaxial cables used for antenna feed lines at amateur stations?  
(G9A02)
  - A. 25 and 30 ohms
  - B. 50 and 75 ohms
  - C. 80 and 100 ohms
  - D. 500 and 750 ohms
11. What is the feed-point impedance of an end-fed half-wave antenna?  
(G9D02)
  - A. Very low
  - B. Approximately 50 ohms
  - C. Approximately 300 ohms
  - D. Very high

## Extra Question Pool July 1, 2016 to June 30, 2020

1. What is meant by automatic control of a station? (E1C02)
  - A. The use of devices and procedures for control so that the control operator does not have to be present at a control point
  - B. A station operating with its output power controlled automatically
  - C. Remotely controlling a station's antenna pattern through a directional control link
  - D. The use of a control link between a control point and a locally controlled station
2. What privileges are authorized in the U.S. to persons holding an amateur service license granted by the Government of Canada? (E1F02)
  - A. None, they must obtain a U.S. license
  - B. All privileges of the Extra Class license
  - C. The operating terms and conditions of the Canadian amateur service license, not to exceed U.S. Extra Class privileges
  - D. Full privileges, up to and including those of the Extra Class License, on the 80, 40, 20, 15, and 10 meter bands
3. Which of the following best describes the term self-spotting in regards to HF contest operating? (E2C02)
  - A. The generally prohibited practice of posting one's own call sign and frequency on a spotting network
  - B. The acceptable practice of manually posting the call signs of stations on a spotting network
  - C. A manual technique for rapidly zero beating or tuning to a station's frequency before calling that station
  - D. An automatic method for rapidly zero beating or tuning to a station's frequency before calling that station
4. What characterizes libration fading of an EME signal? (E3A02)
  - A. A slow change in the pitch of the CW signal
  - B. A fluttery irregular fading
  - C. A gradual loss of signal as the Sun rises
  - D. The returning echo is several Hertz lower in frequency than the transmitted signal
5. Which of the following parameters would a spectrum analyzer display on the vertical and horizontal axes? (E4A02)
  - A. RF amplitude and time
  - B. RF amplitude and frequency
  - C. SWR and frequency
  - D. SWR and time
6. Which of the following describes two problems caused by poor dynamic range in a communications receiver? (E4D02)
  - A. Cross-modulation of the desired signal and desensitization from strong adjacent signals
  - B. Oscillator instability requiring frequent retuning and loss of ability to recover the opposite sideband
  - C. Cross-modulation of the desired signal and insufficient audio power to operate the speaker
  - D. Oscillator instability and severe audio distortion of all but the strongest received signals
7. What is the term for the time it takes for a charged capacitor in an RC circuit to discharge to 36.8% of its initial voltage? (E5B02)
  - A. One discharge period
  - B. An exponential discharge rate of one
  - C. A discharge factor of one
  - D. One time constant
8. What happens when the level of a comparator's input signal crosses the threshold? E6C02 (B)
  - A. The IC input can be damaged
  - B. The comparator changes its output state
  - C. The comparator enters latch-up
  - D. The feedback loop becomes unstable
9. What happens to the conductivity of a photoconductive material when light shines on it? (E6F02)
  - A. It increases
  - B. It decreases
  - C. It stays the same
  - D. It becomes unstable
10. Which of the following is a property of a T-network with series capacitors and a parallel shunt inductor? (E7C02)
  - A. It is a low-pass filter
  - B. It is a band-pass filter
  - C. It is a high-pass filter
  - D. It is a notch filter
11. What kind of digital signal processing audio filter is used to remove unwanted noise from a received SSB signal? (E7F02)
  - A. An adaptive filter
  - B. A crystal-lattice filter
  - C. A Hilbert-transform filter
  - D. A phase-inverting filter

## Extra Question Pool July 1, 2016 to June 30, 2020

12. What is the definition of symbol rate in a digital transmission?  
(E8C02)
- A. The number of control characters in a message packet
  - B. The duration of each bit in a message sent over the air
  - C. The rate at which the waveform of a transmitted signal changes to convey information
  - D. The number of characters carried per second by the station-to-station link
13. What is the radiation pattern of two  $1/4$  wavelength vertical antennas spaced  $1/4$  wavelength apart and fed 90 degrees out of phase?  
(E9C02)
- E. Cardioid
  - F. A figure-8 end-fire along the axis of the array
  - G. A figure-8 broadside to the axis of the array
  - H. Omni-directional
14. Which of the following determines the velocity factor of a transmission line?  
(E9F02)
- I. The termination impedance
  - J. The line length
  - K. Dielectric materials used in the line
  - L. The center conductor resistivity

### Answer Keys

Technician		General		Extra	
1.	T1C02 (D) [97.19]	1.	G1C02 (C) [97.313]	1.	E1C02 (A) [97.3, 97.109]
2.	T1F02 (C) [97.119 (a)]	2.	G2A02 (B)	2.	E1F02 (C) [97.107]
3.	T2C02 (B)	3.	G2D02 (B)	3.	E2C02 (A)
4.	T3C02 (C)	4.	G3B02 (D)	4.	E3A02 (B)
5.	T5A02 (B)	5.	G4B02 (D)	5.	E4A02 (B)
6.	T5D02 (A)	6.	G4E02 (D)	6.	E4D02 (A)
7.	T6C02 (A)	7.	G5C02 (A)	7.	E5B02 (D)
8.	T7B02 (A)	8.	G7A02 (D)	8.	E6C02 (B)
9.	T8A02 (A)	9.	G8A02 (B)	9.	E6F02 (A)
10.	T8D02 (A)	10.	G9A02 (B)	10.	E7C02 (C)
11.	T0A02 (D)	11.	G9D02 (D)	11.	E7F02 (A)
				12.	E8C02 (C)
				13.	E9C02 (A)
				14.	E9F02 (C)

Well how did you do? Are there areas where you would like some more explanation? See one where you could provide a brief explanation that would help others with understanding the concept better?

Send a note to [elmer@brarc.org](mailto:elmer@brarc.org) or [rfnews@brarc.org](mailto:rfnews@brarc.org)

Would you like to try some more? Here is a great website that let's you track your progress thorough the question pools. All you need is an email.

[arrlexamreview.appspot.com](http://arrlexamreview.appspot.com)



...The four words in the Club's logo are Service, Progress, Friendly, and Balanced.  
Here is a statement of the Club's Code that describes these principles:



## BATON ROUGE AMATEUR RADIO CLUB CODE

### **BRARC members strive to exhibit:**

**SERVICE** with stations and skills always ready for service to country and community. Members offer loyalty, encouragement and support to other amateurs, local clubs, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

**PROGRESS** with knowledge of science, well-built and efficient stations and operating practices that are above reproach.

**FRIENDLINESS** with slow and patient operation when requested, friendly advice and counsel to beginners, kind assistance, cooperation and consideration for the interests of others. These are the marks of the amateur spirit.

**BALANCE** Radio is a hobby, never interfering with duties owed to family, job, school or community.

Adapted from The Radio Amateur's Code <http://www.arrl.org/amateur-code> which was adapted from The Amateur's Code written by Paul M. Segal W9EEA in 1928

Adopted March 2018 by BRARC Board of Directors.

# BATON ROUGE AMATEUR RADIO CLUB



PO BOX 4004  
BATON ROUGE, LA 70821  
brarc@brarc.org brarc.org

- ☐ New Member Application  
☐ Update Information for Current Member  
☐ New Ham, Complimentary 12 Month Membership

Date: \_\_\_\_\_

Name: \_\_\_\_\_ Call: \_\_\_\_\_

Address: \_\_\_\_\_ License Class: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Year First Licensed: \_\_\_\_\_ Birthday: \_\_\_\_\_ ARES Member: Yes \ No ARRL Member: Yes \ No

Name and call sign of other Hams in your household: \_\_\_\_\_ List Phone\Email in Club Directory: Yes \ No

Please indicate your areas of interest: Circle\Highlight all that apply

Licensing Instructor	Newsletter Contributor	Net Control Operator	Elmering	DX
Technical Assistance	Publicity/Public Relations	Emergency Operations	Satellite	CW
Antenna Design	Repeater Operations	Public Service	Scouting	Phone
Project Building	Volunteer Examiner	Special Event Stations	Social Events	Digital
Contesting	Internet Linking	Portable Operations	Solar Activity	HF
ARES/RACES	Finance Committee	Software Development	Field Day	VHF/UHF
Traffic Handling (NTS)	Direction Finding/Tracking	Youth Outreach	RFI/TVI	QRP
Other: _____				

- ☐ Regular Member: \$25 per year  
☐ Family of Regular Member: Not Applicable  
☐ Student K-12 Member: \$10 per year  
☐ Unlicensed Member: \$10 per year  
☐ New Licensee, Complimentary 12 month membership

Dues may be submitted in person at a BRARC monthly club meeting or mailed to the above address. Please make checks payable to Baton Rouge Amateur Radio Club. To pay online email form to [brarc@brarc.org](mailto:brarc@brarc.org)

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