



# RF News

**BATON ROUGE AMATEUR RADIO CLUB**

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

brarc.org



**2019/04**

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*Vernon Morris, AA5O*

*Brook Samuel, N5DGK*

**REPEATERS**

146.790 -

444.400 + PL TONE 107.2

**CLUB 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 M NET

MONDAY 7:30 PM

28.450 MHZ USB

Reminder!

The **May** Club Meeting is our

## **Eat & Meet Club Meeting**

This meeting will be held at the

[Highland Road Park Observatory](#)

13800 Highland Rd

on

**Tuesday, May 28**

**6:00 - 8:00 PM**

Please bring prepared foods depending on your call sign suffix:

A - I Side Dish

J - R Main Dish

S - Z Dessert or Salad

No call - Side Dish

The club will provide drinks and tableware.

Program Topic is Field Day Preparation



**ARRL**  
The national association for  
**AMATEUR RADIO®**

## Are you a member?

The American Radio Relay League, ARRL, is the only national organization representing Amateur Radio in the United States. As a member you support thousands of other ham radio enthusiasts shaping the hobby today.

Find out more information about joining, as well as the benefits you can enjoy with membership, at <https://www.arrl.org/join-arrl-renew-membership>

# Contest Louisiana Purchase Special Event

Commemorating the Louisiana Purchase in 1803

**Call Sign: W5L**

**When:** Saturday April 27 to May 5, 2019

**Time:** 0000 UTC to May 2359 UTC

**Sponsor:** NorthEast Louisiana Amateur Radio Club

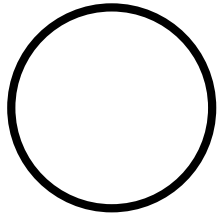
**Website:** <http://nelarc.org/2019-W5L/>

Facebook Page: [https://www.facebook.com/events/341744536667469/?active\\_tab=about](https://www.facebook.com/events/341744536667469/?active_tab=about)

If you would like to participate as an operator from your QTH, check out the guidelines and sign up at:  
<http://nelarc.org/2019-W5L/W5L.pdf>



# Upcoming Events



## HAMFESTS

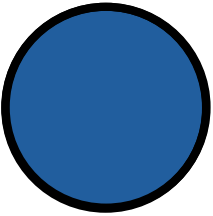
APRIL 27, 2019 - [NORTHEAST LA HAMFEST, WEST MONROE, LA](#)

MAY 11, 2019 - [LA DELTA RADIO CLUB SPRING FLING & TAILGATE, DELHI, LA](#)

MAY 17-19, 2019 - [DAYTON HAMVENTION, DAYTON, OH](#)

JULY 20, 2019 - [SLIDELL EOC HAMFEST, SLIDELL, LA](#)

AUGUST 10, 2019 - [SHREVEPORT & BOSSIER HAMFEST, SHREVEPORT, LA](#)



## CLUB MEETINGS

APRIL 30, 2019 - CLUB MEETING, BLUEBONNET LIBRARY

VE TESTING SESSION 6 PM

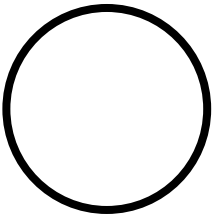
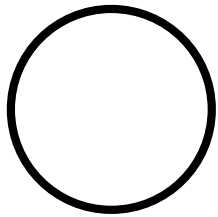
FUSION REPEATER SYSTEMS & NETWORKING, AC5H 7 PM

MAY 7, 2019 - BRARC BOARD MEETING, FAIRWOOD LIBRARY

6:30 PM

MAY 28, 2019 - CLUB MEETING, HIGHLAND RD PARK OBSERVATORY

EAT AND MEET MEETING 6 PM



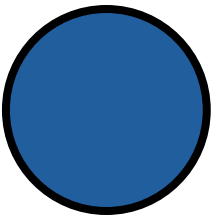
## CONTESTS/OPERATING EVENTS

APRIL 27-MAY 5, 2019 - LA PURCHASE SPECIAL EVENT

MAY 27, 2019 - USS KIDD MEMORIAL DAY W5KID ACTIVATION

JUNE 1-2, 2019 - USS KIDD MUSEUM SHIPS WEEKEND W5KID ACTIVATION

JUNE 8-10, 2019 - [JUNE VHF](#)



## 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 M NET - MONDAY 7:30 PM 28.450 MHZ USB

# USS KIDD

## W5KID Activation

Submitted by: John Krupsky, WA5MLF

W5KID was on the air aboard the USS KIDD on Vietnam Veterans Day, March 29, 2019. Buddy, N5BUD, arrived first and set everything up and Thornton, K5HLC, arrived shortly thereafter. Band conditions were not favorable in the morning so when Bill, KE5TA, and Cecile, N5DR, showed up, we had an up-close personal net going trading stories and entertaining visitors to the ship as to why we were there. We made a logarithmic number of contacts compared to the number of CQs sent.

John, WA5MLF, arrived a little past 1:00pm and Thornton stayed a while longer to help with logging contacts. Dave, K5CGX, was unable to attend.

The station was on 40m for most of the operating day. We logged 11 contacts on 40m, including Alabama, Arkansas, Georgia, North Carolina, Oklahoma and Texas. Later in the afternoon, John moved to 20m and made one contact with Colorado after calling CQ multiple times. 20m was busy with contests and DX stations.

The nearby docked American Queen riverboat (pictured below) provided additional folks who toured the USS KIDD who enjoyed hearing about our club station onboard.



The USS KIDD was afloat on the high Mississippi River.

# ARRL LA Section News

## Section Manager John Mark Robertson, K5JMR

The 2019 Rayne Hamfest is in the books. Thanks so much to everyone with the Acadiana Amateur Radio Assn. for such a warm welcome and another fantastic hamfest. The crawfish were excellent as always and our ARRL forums were well attended. Delta Division Director David Norris gave us an update on the ARRL and the Delta Division. Jim Coleman our SEC for ARES gave another great ARES forum as well...updating us on the new things coming to ARES.

Next Hamfest is in West Monroe in April.....I hope to see many of you there!

### SILENT KEYS

KB5WMY Carl McNair Bossier City

### LICENSE UPGRADES

Report for 2019-03-04

James E Keith, KG5TQL  
Floyd E Milford, KG5OMH  
Roger D Peters, KG5ZLE  
Cory R Rogers, KG5QCU  
John D Yarbrough, KI5DLU  
Gregory E Decker, KI5CFG

Book Giveaway winners so far:

### January

Chris Joseph ,KG5SSH  
Acadiana Amateur Radio Assn.

### February

Ed Mason, KE5GMN  
Sulphur Amateur Radio Assn.

Next drawing is MARCH 1ST.

### NEW HAMS

Report for 2019-03-04

Margi H Desai, KI5DGZ  
Benjamin S Brim, KI5DMF  
Elizabeth C Reiner, KI5DHA  
F D Gross, KI5DBK  
Jay A Pertuit, KI5DGX  
Clayton D Deron, KI5DGV  
John M Lyon, KI5DEF  
Taylor V Tran, KI5DGW  
Timothy L Isom, KI5DCP  
Cheryl L Smith, KI5DFJ  
Jess W Crosier, KI5DGP  
David J Decourt, KI5DHH  
Andrew K Panday, KI5DHK  
Kaydin A Morgan, KI5DCQ  
Nicholas P Harper, KI5DMG  
William A Spencer, KI5DHC  
Nawaf N Awad, KI5DGU  
Casey V Hurt, KI5DBJ  
Ralston K Graves, KI5DJX  
Cole D Katzenstein, KI5DGY  
Andrew M Wendt, KI5DGT  
Christopher Pham, KI5DHB  
Jeremy T Niebrugge, KI5DMW  
Julius B Paul, AG5TL  
William S Parker, KI5DHM  
Randall W Mixon, KI5DHN  
Melanie A Tarver, KI5DHP  
William Z Daniels, KI5DHO  
James C Whitman, KI5DLG  
Hunter C Meyer, KI5DHD  
Joshua Decker, KI5DDA

### NEW/RENEWED ARRL MEMBERS

Report for 2019-03-04

Michael J Sax, KC5SAX  
Mabel D Fisher, KI5CTI  
Robin Kropog, KC5ITN  
Ludvig S Natell, KI5CNE  
James P Jones, KG5SRB  
John Garafola, W5FLY  
Jerome G Labat, KD5GUQ  
Elisha B Wilson, KI5ADM  
Howard L Magee, W5LMS  
Frederic W Borstel, KB5VCV  
David E Hartley, K5OZ  
David Fulton, KI5CWP  
James B Faulk, KF5AHM  
William E Blum, KF4CDK  
Kline P Duplechin  
Christopher W Fuselier, AF5XP  
Samuel K Tubbs, KG5SXC  
Mikle B Schwaller, KI5ADL  
S Ferrell Spruell, AC5H  
Charles W Peters, KA6GNX  
Russell T Taylor, N5RTZ  
Abner B Hedgemon, KC5XR  
Mary F Sullivan, KD5LKB  
William S Parker, KI5DHM  
James W Morris, N5JU  
Kenneth E Russ, AG5TA  
Robert P Roy, KB5DOG  
Jack L Brossette, W5ETL  
James C Walters, AE5ZE

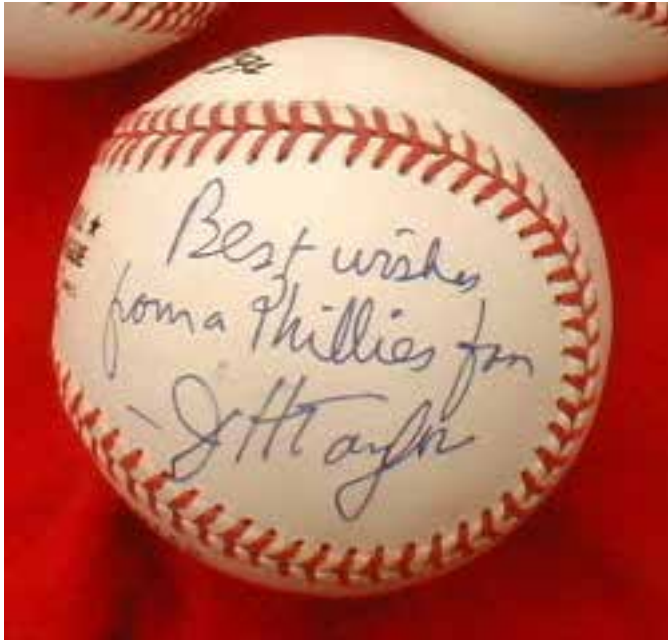
### ARES

If you want to be in the LA Section ARES you MUST go to: <https://arrl.volunteerhub.com/lp/la> and register. If you do not register and create a profile you will not be considered an ARES member. Thanks!



# Recognize This?

Submitted by: Jim, N5IB



Any ideas about the link between this signed baseball and amateur radio? The signature doesn't belong to a homerun, RBI or ERA leader.

It's signed by Joseph H. Taylor, Nobel laureate in Physics in 1937. He's known to us hams as K1JT, inventor of the many wildly popular digital modes: JT65, FT8, etc. The ball was signed by Joe when he visited LSU's Dept. of Physics and Astronomy to give the 1994 Max Goodrich Lecture.

An autobiographical sketch at <https://www.nobelprize.org/prizes/physics/1937/taylor/biographical/> has many references to his passion for ham radio in his youth.

If you have any unique items that you would like featured, send them to [rfnews@brarc.org](mailto:rfnews@brarc.org)  
We'll show and you can tell!

## USS KIDD Upcoming W5KID Activations

BRARC operates Special Event Stations aboard the USS KIDD on military holidays. The USS KIDD is a Fletcher-Class Destroyer (DD-661) on the banks of the Mississippi River in Baton Rouge. The USS KIDD station uses a Yaesu FT-450D, running 100 W and a MFJ-969 antenna tuner, feeding a long wire strung from the mast. Club members have also operated inside the Louisiana Veterans Museum. The USS KIDD, W5KID is an excellent way for Technicians or new Generals to gain some HF experience, with an experienced Ham showing you the ropes! Come and join in the fun.

The following dates are scheduled for operating aboard the USS KIDD:

May 27	Memorial Day
June 1-2	Museum Ships Weekend
July 4	Independence Day
Nov 11	Veterans Day
Dec 7	Pearl Harbor Day

Times and dates may vary. Sign up sheets for operating times are available at club meetings. Contact Dave Thomas, K5CGX at 225-572-7836.

# 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)

# Member Spotlight

## Do You Recognize This Club Member?

These photos are of a longtime member of the Baton Rouge Amateur Radio Club. He received his Novice license at the age of 14 and earned his General license 3 months later. His first station was a Heathkit AT-1, BC 348K with an 80m dipole. He would fire up after school and work CW for an hour or so. There were lots of young hams and the most prevalent handle in those days was "John." At the time, you needed several crystals to work the entire novice band. Sometimes the frequency separation between the two stations was so great that you couldn't hear yourself when sending and you really had to concentrate on the character formation and spacing. It was usually the same situation for the other station too. Filtering out one signal from 3-4 became possible with practice. Above that, it became exponentially more difficult. But in those situations, your effort always matched the importance of the DX.

Saturday mornings were a different story. He and his friends actually got on 75 or 40 phone and would go until somebody couldn't copy somebody else. A big group was 4-5. Nobody ran much more than 50-60 watts and most had screen grid modulation. They were all in high school and had a **lot** to talk about...CONELRAD Alert Monitors, Sputnik, surplus equipment conversion to Ham uses, best career opportunities... *Girl talk was absolute taboo!*

His second station was a Heathkit AT-1 driving 807s (2), HQ 140X with a 40m dipole. His third station was a Viking Challenger, HQ 140X with a 40m dipole.

The photos shown to the left are of the 'mystery' club member from the early 1940's (top left photo), the mid 1940's (top right photo) and the mid 1950's (bottom photo). The crewcut, rolled up shirt sleeves and rolled up pants with white socks help serve as a time stamp of the 50's. His favorite sport was baseball and there was no better cowboy than the Durango Kid. He loved watching "The Best Years of our Lives" and listening to "Night and Day," "Laura," "You go to my Head," "Let's Face the Music and Dance," "The Night We Called it a Day," "I've Got You Under my Skin," "What's New," "Goodbye," and "In a Sentimental Mood." The best tunes for dancing, then AND now, he recommends "Sing...Sing...Sing" by Benny Goodman and "Yellow Moon" by the Neville Brothers.

Can you guess who this club member is? Send your guesses to [rfnews@brarc.org](mailto:rfnews@brarc.org)  
The answer will be revealed in next month's issue.



# 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**

What beautiful weather we've been having! I know the heat is on it's way, but along with the heat comes summer. And for many people, that means a vacation, or at least some time off. For amateur radio, that means that Field Day will be here soon. Please make plans to come to the Eat and Meet meeting at the Highland Road Observatory for our May club meeting. Apart from the food and good time, we'll make plans for 2019 Field Day. I hope that you are enjoying the new format of the RF News. As the editor, I edit the content that I receive. another big THANK YOU to those who are contributing to the publication. This month we got another cool item from Jim, N5IB, an article about the W5KID activation from John, WA5MLF, some updates from John Mark, K5JMR, as well as some great pictures and history from our 'mystery' member. I look forward to getting more articles and pictures from more members. 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 (all at the EBRP Bluebonnet Library) in the upcoming months. We will begin this month 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. I have already received a few this way, so keep them coming.

Looking forward to seeing everyone at the upcoming meeting. Please make plans to attend to hear the presentation from Ferrell, AC5H about Fusion Repeater Systems and Networking.



**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)

# 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.



YAESU FTdx 1200 with FFT-1 upgrade

Like New - Only 3 years old

**\$900**

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

If you have any equipment for sale that you would like listed in the RF News, please email the following to [rfnews@brarc.org](mailto:rfnews@brarc.org):

Item Specifics (Brand and Model, age)

All included equipment, accessories

Photo, if available

Cost

Contact Information (Name, phone number or email address)

# Youth Yak

This month's contributor: **Brynn Hebert, KG5KRV**

## Three Generations of Hams

When my parents first got started in amateur radio in 2015, I didn't realize that the hobby was one that spanned more than one generation. My dad, Brett, KG5IQU was the first to get his license. The day that my mom, Synomen, KG5IRS passed her Technician test, she excitedly called my grandfather to let him know. What I soon found out was that her dad, my Paw Paw Hartie, was also a ham operator. Once I earned my license, became the 3rd generation in my family - which is pretty cool.

I asked my grandfather, Hartie Trosclair, WB5WBL to tell me about some of his memories of amateur radio. He earned his first license in 1976 by going to New Orleans to take the test. He became a General when the code requirement was still part of the licensing test. He remembers spending several hours one Saturday morning talking to Boy Scouts at a camp in New York where they each wanted to take turns talking to and listening to his southern accent. He also spoke to an Air Force pilot on a B52 who was calling CQ 30,000 feet above Hawaii.



His favorite part of the hobby was building radios and antennas. He isn't active in the hobby, but I am hoping to get him over one Monday night to check in to the 10m net, or maybe get him to come to a club meeting.

My mom remembers her dad spending time out in his shack when she was growing up, but she didn't really know what was going on out there. As a child, she didn't really understand what it meant to have a call sign, but she always remembered his - WB5WBL - World's Best Lover or World's Best Liar, depending on who you asked. HaHa He has told me that he'd like me to have his call sign someday. I think I'd like that too. I think it's special to be a 3rd generation amateur radio operator and I'm glad that I share it with my mom, dad, brother and grandfather.

# 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 5.0 Signal Propagation
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

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



# 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:

<p>Your Photo Here</p>	<p>Your Photo Here</p>	<p>Your Photo Here</p>
<p><b>YOUR NAME HERE</b> CALL SIGN</p>	<p><b>YOUR NAME HERE</b> CALL SIGN</p>	<p><b>YOUR NAME HERE</b> CALL SIGN</p>

Year First Licensed: 1980  
License Class: Extra  
Birthday: January 1  
Cell Phone: 225-555-5555  
Email: xxx(a)email.com  
Special Interests: 10m Net Monday

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

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



# Around the Bands

## ARRL Launches NEW Podcast Geared Toward New Radio Amateurs

For those just getting started on their Amateur Radio journey, ARRL is launching a new podcast aimed at answering your questions, providing support and encouragement for newcomers to get the most out of the hobby. The podcast “So Now What?” will launch on Thursday, March 7, and new episodes will be posted every other Thursday, alternating new-episode weeks with the [“ARRL The Doctor is In”](#) podcast.

Co-hosting “So Now What?” will be ARRL Communications Content Producer Michelle Patnode, W3MVP, and ARRL Station Manager Joe Carcia, NJ1Q. Presented as a lively conversation, with Patnode representing newer hams and Carcia the veteran operators, the podcast will explore questions that newer hams may have and the issues that keep participants from staying active in the hobby. Some episodes will feature guests to answer questions on specific topic areas.

“No other podcast is really aimed at this segment of the Amateur Radio community... that is being underserved, that is not getting the answers to the many questions they have,” said ARRL Communications Manager David Isgur, N1RSN, who will serve as the podcast’s executive producer.

Topics to be discussed in the first several episodes include getting started, operating modes available to Technician licensees, VEC and licensing issues, sunspots and propagation, mobile operating, contesting, Amateur Radio in pop culture, and perceptions of Technician license holders.

Given the growing popularity of podcasts, Isgur believes that providing this information in a podcast format will be a very effective method of reaching out and engaging this particular part of the Amateur Radio community, which is important for building and maintaining Amateur Radio interest and activity.

Patnode said she is excited to ask questions she has about different aspects of Amateur Radio, such as how to incorporate ham radio with newer technologies like Raspberry Pi computers and Arduinos, and to learn more about the hobby right along with the audience.

Carcia believes the “So Now What?” podcast will be a perfect complement to the podcasts that the ARRL already offers — “ARRL The Doctor Is In” and “ARRL Audio News.”

In addition to serving as co-host, Patnode is also the audio editor/producer of the podcast. ARRL Graphics Department Supervisor Sue Fagan, KB1OKW, designed the podcast logo, and ARRL Radiosport Administrative Manager Sabrina Jackson, KC1JMW, will voice the introduction and closing.

Listeners will be able to find the “So Now What?” podcast on Apple iTunes, Blubrry, or Stitcher (free registration required, or browse the site as a guest) and through the free Stitcher app for iOS, Kindle, or Android devices...or wherever you get your podcasts. Episodes will also be archived on the ARRL website.

“So Now What?” will be sponsored by [LDG Electronics](#), a family owned and operated business with laboratories in southern Maryland that offers a wide array of antenna tuners and other Amateur Radio products.

Source: <http://www.arrl.org/news/arrl-launching-new-podcast-geared-toward-new-radio-amateurs>

# 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. How many operator/primary station license grants may be held by any one person?  
(T1A04 [97.5(b)(1)])
  - A. One
  - B. No more than two
  - C. One for each band on which the person plans to operate
  - D. One for each permanent station location from which the person plans to operate
2. Under what conditions is an amateur station authorized to transmit music using a phone emission?  
(T1D04 [97.113(a)(4), 97.113(c)])
  - A. When incidental to an authorized retransmission of manned spacecraft communications
  - B. When the music produces no spurious emissions
  - C. When the purpose is to interfere with an illegal transmission
  - D. When the music is transmitted above 1280 MHz
3. What is an appropriate way to call another station on a repeater if you know the other station's call sign?  
(T2A04)
  - A. Say "break, break," then say the station's call sign
  - B. Say the station's call sign, then identify with your call sign
  - C. Say "CQ" three times, then the other station's call sign
  - D. Wait for the station to call CQ, then answer it
4. What can happen if the antennas at opposite ends of a VHF or UHF line of sight radio link are not using the same polarization?  
(T3A04)
  - A. The modulation sidebands might become inverted
  - B. Signals could be significantly weaker
  - C. Signals have an echo effect on voices
  - D. Nothing significant will happen
5. Which computer sound card port is connected to a transceiver's headphone or speaker output for operating digital modes?  
(T4A04)
  - A. Headphone output
  - B. Mute
  - C. Microphone or line input
  - D. PCI or SDI
6. How many volts are equal to one microvolt?  
(T5B04)
  - A. One one-millionth of a volt
  - B. One million volts
  - C. One thousand kilovolts
  - D. One one-thousandth of a volt
7. What electrical component stores energy in an electric field?  
T6A04 (B)
  - A. Resistor
  - B. Capacitor
  - C. Inductor
  - D. Diode
8. Which of the following displays an electrical quantity as a numeric value?  
(T6D0)
  - A. Potentiometer
  - B. Transistor
  - C. Meter
  - D. Relay
9. What reading on an SWR meter indicates a perfect impedance match between the antenna and the feed line?  
(T7C04)
  - A. 2 to 1
  - B. 1 to 3
  - C. 1 to 1
  - D. 10 to 1
10. What mode of transmission is commonly used by amateur radio satellites?  
(T8B04)
  - A. SSB
  - B. FM
  - C. CW/data
  - D. All of these choices are correct
11. What is a disadvantage of the "rubber duck" antenna supplied with most handheld radio transceivers when compared to a full-sized quarter-wave antenna?  
(T9A04)
  - A. It does not transmit or receive as effectively
  - B. It transmits only circularly polarized signals
  - C. If the rubber end cap is lost, it will unravel very easily
  - D. All of these choices are correct
12. Which of the following is an important safety precaution to observe when putting up an antenna tower?  
(T0B04)
  - A. Wear a ground strap connected to your wrist at all times
  - B. Insulate the base of the tower to avoid lightning strikes
  - C. Look for and stay clear of any overhead electrical wires
  - D. All of these choices are correct

## General Question Pool July 1, 2015 to June 30, 2019

1. Which of the following amateur bands is restricted to communication only on specific channels, rather than frequency ranges?  
(G1A04[97.303 (h)])
  - A. 11 meters
  - B. 12 meters
  - C. 30 meters
  - D. 60 meters
2. Which of the following is a requirement for administering a Technician class license examination?  
(G1D04 [97.509(3)(i)(c)])
  - A. A. At least three General class or higher VEs must observe the examination
  - B. B. At least two General class or higher VEs must be present
  - C. C. At least two General class or higher VEs must be present, but only one need be Amateur Extra class
  - D. D. At least three VEs of Technician class or higher must observe the examination
3. When selecting a CW transmitting frequency, what minimum separation should be used to minimize interference to stations on adjacent frequencies?  
(G2B04)
  - A. 5 to 50 Hz
  - B. 150 to 500 Hz
  - C. 1 to 3 kHz
  - D. 3 to 6 kHz
4. What segment of the 20-meter band is most often used for digital transmissions (avoiding the DX propagation beacons)?  
(G2E04)
  - A. 14.000 - 14.050 MHz
  - B. 14.070 - 14.112 MHz
  - C. 14.150 - 14.225 MHz
  - D. 14.275 - 14.350 MHz
5. What does the term "critical angle" mean, as used in radio wave propagation?  
(G3C04)
  - A. The long path azimuth of a distant station
  - B. The short path azimuth of a distant station
  - C. The lowest takeoff angle that will return a radio wave to Earth under specific ionospheric conditions
  - D. The highest takeoff angle that will return a radio wave to Earth under specific ionospheric conditions
6. What is the effect on an audio device when there is interference from a nearby CW transmitter?  
(G4C04)
  - A. On-and-off humming or clicking
  - B. A CW signal at a nearly pure audio frequency
  - C. A chirpy CW signal
  - D. Severely distorted audio
7. Which of the following causes opposition to the flow of alternating current in a capacitor?  
(G5A04)
  - A. Conductance
  - B. Reluctance
  - C. Reactance
  - D. Admittance
8. Which of the following is an advantage of an electrolytic capacitor?  
(G6A04)
  - A. Tight tolerance
  - B. Much less leakage than any other type
  - C. High capacitance for a given volume
  - D. Inexpensive RF capacitor
9. Which of the following describes the function of a two input NOR gate?  
(G7B04)
  - A. Output is high when either or both inputs are low
  - B. Output is high only when both inputs are high
  - C. Output is low when either or both inputs are high
  - D. Output is low only when both inputs are high
10. What is the stage in a VHF FM transmitter that generates a harmonic of a lower frequency signal to reach the desired operating frequency?  
(G8B04)
  - A. Mixer
  - B. Reactance modulator
  - C. Pre-emphasis network
  - D. Multiplier
11. What is the radiation pattern of a dipole antenna in free space in a plane containing the conductor?  
(G9B04)
  - A. It is a figure-eight at right angles to the antenna
  - B. It is a figure-eight off both ends of the antenna
  - C. It is a circle (equal radiation in all directions)
  - D. It has a pair of lobes on one side of the antenna and a single lobe on the other side
12. What does "time averaging" mean in reference to RF radiation exposure?  
(G0A04)
  - A. The average amount of power developed by the transmitter over a specific 24-hour period
  - B. The average time it takes RF radiation to have any long-term effect on the body
  - C. The total time of the exposure
  - D. The total RF exposure averaged over a certain time

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

1. With your transceiver displaying the carrier frequency of phone signals, you hear a DX station calling CQ on 3.601 MHz LSB. Is it legal to return the call using lower sideband on the same frequency?  
(E1A04) [97.301, 97.305]
  - a. (E1A04) [97.301, 97.305]
  - b. Yes, because the DX station initiated the contact
  - c. Yes, because the displayed frequency is within the 75 meter phone band segment
  - d. No, the sideband will extend beyond the edge of the phone band segment
  - e. No, U.S. stations are not permitted to use phone emissions below 3.610 MHz
2. What is an Earth station in the amateur satellite service?  
(E1D04) [97.3]
  - a. An amateur station within 50 km of the Earth's surface intended for communications with amateur stations by means of objects in space
  - b. An amateur station that is not able to communicate using amateur satellites
  - c. An amateur station that transmits telemetry consisting of measurement of upper atmosphere
  - d. Any amateur station on the surface of the Earth
3. What is meant by the term mode as applied to an amateur radio satellite?  
(E2A04)
  - a. The type of signals that can be relayed through the satellite
  - b. The satellite's uplink and downlink frequency bands
  - c. The satellite's orientation with respect to the Earth
  - d. Whether the satellite is in a polar or equatorial orbit
4. What is the purpose of digital store-and-forward functions on an Amateur Radio satellite?  
(E2D04)
  - a. To upload operational software for the transponder
  - b. To delay download of telemetry between satellites
  - c. To store digital messages in the satellite for later download by other stations
  - d. To relay messages between satellites
5. What is meant by the terms extraordinary and ordinary waves?  
(E3B04)
  - a. Extraordinary waves describe rare long skip propagation compared to ordinary waves which travel shorter distances
  - b. Independent waves created in the ionosphere that are elliptically polarized
  - c. Long path and short path waves
  - d. Refracted rays and reflected waves
6. If a frequency counter with a specified accuracy of  $\pm 0.1$  ppm reads 146,520,000 Hz, what is the most the actual frequency being measured could differ from the reading?  
(E4B04)
  - a. 14.652 Hz
  - b. 0.1 MHz
  - c. 1.4652 Hz
  - d. 1.4652 kHz
7. How can conducted and radiated noise caused by an automobile alternator be suppressed?  
(E4E04)
  - a. By installing filter capacitors in series with the DC power lead and a blocking capacitor in the field lead
  - b. By installing a noise suppression resistor and a blocking capacitor in both leads
  - c. By installing a high-pass filter in series with the radio's power lead and a low-pass filter in parallel with the field lead
  - d. By connecting the radio's power leads directly to the battery and by installing coaxial capacitors in line with the alternator leads
8. Which of the following represents a capacitive reactance in polar coordinates?  
(E5C04)
  - a. A positive real part
  - b. A negative real part
  - c. A positive phase angle
  - d. A negative phase angle
9. What is the name given to an impurity atom that adds holes to a semiconductor crystal structure?  
(E6A04)
  - a. Insulator impurity
  - b. N-type impurity
  - c. Acceptor impurity
  - d. Donor impurity
10. Which materials are commonly used as a slug core in a variable inductor?  
(E6D04)
  - a. Polystyrene and polyethylene
  - b. Ferrite and brass
  - c. Teflon and Delrin
  - d. Cobalt and aluminum
11. How many flip-flops are required to divide a signal frequency by 4?  
(E7A04)
  - a. 1
  - b. 2
  - c. 4
  - d. 8



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

12. Which of the following types of linear voltage regulator usually make the most efficient use of the primary power source?  
(E7D04)
- A series current source
  - A series regulator
  - A shunt regulator
  - A shunt current source
13. What is meant by the term op-amp input offset voltage?  
(E7G04)
- The output voltage of the op-amp minus its input voltage
  - The difference between the output voltage of the op-amp and the input voltage required in the immediately following stage
  - The differential input voltage needed to bring the open loop output voltage to zero
  - The potential between the amplifier input terminals of the op-amp in an open loop condition
14. What is "dither" with respect to analog to digital converters?  
(E8A04)
- A. An abnormal condition where the converter cannot settle on a value to represent the signal
  - B. A small amount of noise added to the input signal to allow more precise representation of a signal over time
  - C. An error caused by irregular quantization step size
  - D. A method of decimation by randomly skipping samples
15. What is the primary effect of extremely short rise or fall time on a CW signal?  
(E8D04)
- More difficult to copy
  - The generation of RF harmonics
  - The generation of key clicks
  - Limits data speed
16. Which of the following factors may affect the feed point impedance of an antenna?  
(E9A04)
- Transmission-line length
  - Antenna height, conductor length/diameter ratio and location of nearby conductive objects
  - The settings of an antenna tuner at the transmitter
  - Sunspot activity and time of day
17. Why should an HF mobile antenna loading coil have a high ratio of reactance to resistance?  
(E9D04)
- To swamp out harmonics
  - To maximize losses
  - To minimize losses
  - To minimize the Q
18. What are the two families of circles and arcs that make up a Smith chart?  
(E9G04)
- Resistance and voltage
  - Reactance and voltage
  - Resistance and reactance
  - Voltage and impedance
19. When evaluating a site with multiple transmitters operating at the same time, the operators and licensees of which transmitters are responsible for mitigating over-exposure situations?  
(E0A04)
- Only the most powerful transmitter
  - Only commercial transmitters
  - Each transmitter that produces 5 percent or more of its MPE limit at accessible locations
  - Each transmitter operating with a duty-cycle greater than 50 percent

# Answer Key

## Answer Key

Technician	General	Extra
1. T1A04 (A) [97.5(b)(1)]	1. G1A04 (D) [97.303 (h)]	1. E1A04 (C) [97.301, 97.305]
2. T1D04 (A) [97.113(a)(4), 97.113(c)]	2. G1D04 (A) [97.509(3)(i)(c)]	2. E1D04 (A) [97.3]
3. T2A04 (B)	3. G2B04 (B)	3. E2A04 (B)
4. T3A04 (B)	4. G2E04 (B)	4. E2D04 (C)
5. T4A04 (C)	5. G3C04 (D)	5. E3B04 (B)
6. T5B04 (A)	6. G4C04 (A)	6. E4B04 (A)
7. T6A04 (B)	7. G5A04 (C)	7. E4E04 (D)
8. T6D04 (C)	8. G6A04 (C)	8. E5C04 (D)
9. T7C04 (C)	9. G7B04 (C)	9. E6A04 (C)
10. T8B04 (D)	10. G9B04 (A)	10. E6D04 (B)
11. T9A04 (A)	11. G0A04 (D)	11. E7A04 (B)
12. T0B04 (C)		12. E7D04 (B)
		13. E7G04 (C)
		14. E8A04 (B)
		15. E8D04 (C)
		16. E9A04 (B)
		17. E9D04 (C)
		18. E9G04 (C)
		19. E0A04 (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 through 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)

