



# Amateur Radio



# What Can Amateur Radio Operators Do?

A man in Dallas receives a data transmission from a orbiting satellite. He forwards the data to a university in Norway, to help students with a science project.

A woman in Connecticut uses a pocket sized handheld radio when she is out of cell phone range to talk to her friends in North Carolina.

After a Kentucky tornado, communications assistance from volunteer Amateur Radio Operators help save lives and property.



# What is Amateur Radio

### A fun and educational hobby for all ages

The unique mix of fun, public service and experimentation is the distinguishing characteristic of AMATUER RADIO. Also s called "HAM RADIO"

The history of amateur radio has its beginnings in the very foundations of radio or wireless technology itself.

When radio technology started to appear in the late 1800's there was often no distinction between professional and amateur. As radio or wireless as it was called was often thought of as only an interesting phenomenon for which there was little use, many professional scientists and engineers did not exploit it as they might (although some did) and this left open wide the field for amateur experimenters. Ham radio has been in existence for over a hundred vears. In fact ever since radio technology itself has been in existence, amateur experimenters have wanted to use and investigate radio technology. Professionals and amateur experimenters alike were free to use the new medium of wireless as they wanted. No licenses were

required but that would change.

The Congress of the US decided to regulate radio and passed the Radio Act of 1902 It placed a number of severe restrictions on radio amateurs and required them to be licensed.



This was the beginning of the Amateur Radio service as a hobby. This act was probably the first legislation globally seeking to control wireless telegraphy. Today the Amateur Radio Service is the responsibility of the Federal Communications Commission in Washington DC.

The early Ham radio operators used Morse Code to communicate and are the fore runners of modern radio and TV stations and cellular telephones. There are about 3 million amateur radio operators worldwide, including more than 700,000 licensed operators in the United States alone. Today Ham operators utilize scores of methods to communicate world wide from voice to digital and even via satellites. Hams can even talk to the International Space Station. It is one of the most unique hobbies in the world today for all ages.

### Amateur Radio More Make Global Connections Than A hobby

Ham radio is used for a variety of recreational and service-related activities. Amateur radio operators, also called "hams," use amateur radio equipment to engage in two-way personal communications with other hams, as well

### **Develop New Skills**

Don't be afraid to try new things and learn new skills. Through amateur radio, you can develop communication skills to improve your career, friendships, and life!

### **Get Creative**

Design, build, and test your gear, whether from scratch or a kit. Challenge yourself to make a one-of-a-kind electronic project.

Meet great people all over the world, from every walk of life and every generation. Over 3 million smart and inspiring people are on the amateur airwaves and eager to talk to you from anywhere in the world!

### Get Involved in Public Service

Community events, such as parades and road races, require radio communications along their routes for logistic support, scoring, and first aid.

#### Make a Difference

When cell phones, the internet, and other systems are down, amateur radio still gets the message out. It is a vital service that can save lives when regular communication systems fail.

#### **Hamfests**

Ham radio clubs sponsor conventions called Hamfests all over the country. It a chance to buy and sell equipment, meet new hams and attend seminars to learn more about the hobby.







INTERNATIONAL SPACE STATION

### Ham Radio Is Out Of This World.....

The Amateur Radio station aboard the International Space Station is known as the ARISS program - Amateur Radio on the International Space Station. Many astronauts and cosmonauts have amateur radio licenses. Amateurs from the ISS have set up the ARISS program to foster amateur radio communications between the astronauts and cosmonauts who reside on the station and stations on the ground. Talking to the ISS is just one of the fun things to do as a Amateur radio operator.

### For more information go to https://www.amsat.org/





# What kind of radio equipment will I need to get on the air?

The VHF / UHF hand held radio shown above can be purchased for as little as \$30. When you receive your entry level Technician Class license you can begin the fun the same day!

Most people who are interested in ham radio will want to set up their own station to be able to participate in the hobby. In the early days of radio, these rooms were called radio shacks, and this term has stuck, and is used today for a room where the ham radio equipment is contained.

Enlisting a friendly "Elmer" to show you the ropes when buying and setting your your first shack is the best way to start. (An Elmer is a person who teaches, mentors, and nurtures the newbie ham radio operator.) The Kentucky Colonels Amateur Radio will help you find your Elmer.

Remember it's a hobby. Most new hams buy their equipment as their skills evolve. Just spend what you can afford and have fun!





# How To Become A Amateur Radio Operator

Ham radio has been around a long time and has always been about communicating via radio waves. Early on, a system was needed privileges to the most: o practical use in to make sure that the airwaves could be regulated so that everyone had a fair shot at Technician Class License: In order to using them, and as a result, a licensing system was devised for all of the various governmental, military, commercial, and personal uses of the spectrum. Some frequencies don't require a license for people most operations at frequencies above to use at all, but they're generally limited in scope. Becoming a licensed ham radio operator opens up large areas of the spectrum for you to use for lots of different communications modes, but in order to become licensed, you need to take a test.

Don't fret yet- the testing process is simple and painless, and you can likely pass the test after only studying for a weekend.

Besides, there are a lot of guys and gals around who would love to help you learn the things you need to know and would like nothing more to help get you going.

The Federal Communications Commission needs to make sure that you have a basic understanding of electrical, regulatory, and other principals so that they know that you'll be a responsible user of the airwaves and won't cause trouble or hurt yourself.

That's the reasoning for the testing. Besides that, there can be up to three tests, depending on what you want to do and where signals are very weak, and long-distance you'd like to go in the hobby.

Here are the three levels of amateur radio license in order from the one with the fewest

obtain this entry-class license, you need to get at least 26 questions correct on a 35 question exam that is taken from a pool of 400 questions. This license class allows 30MHz which allows communications locally and around the country.

General Class License: The General license also requires 26 correct answers on a 35 question exam that is taken from a pool of 500 questions. This license class allows the licensee to operate on all amateur radio bands and most modes which opens up worldwide communications. You need to earn a Technician class license before taking the General class exam.

Amateur Extra Class License: Extra class license holders have earned all privileges on all bands and modes. This class of license has a more difficult exam that requires at least 37 correct answers out of 50 questions that are taken from a pool of 700 questions. A General class license must be earned before taking the Extra class exam.

Do I need to learn Morse Code? Nope. Those days are over. That being said, a lot of hams still enjoy learning Morse Code because it's easier to hear when weak-signal contacts can be made much more easily than by using other modes.

### Find an Amateur Radio License Exam in Your Area

Their are numerous Amateur Radio clubs in Kentucky. Most offer testing several times a year using certified Volunteer Examiners.

The National Association Of Amateur Radio is your best source for information on testing for you Ham licensee. Visit the link below for information

https://www.arrl.org/find-an-amateur-radio-license-exam-session

The Kentucky Colonels Amateur Radio Club holds testing secession's in Bowling Green KY, 4 times a year. For information visit their web site at

https://www.ky4bg.com





### TIM ALLEN KK6OTD

Actor Tim Allen received his ham license in 2014. He played a ham operator on the ABC TV hit show Last Man Standing in Hollywood FROM 2011 TO 2021

### Study On The Web

There are many websites available with study materials or practice tests for the Amateur Radio exams, so this is just a representative sample. Use Google to find more.

https://hamstudy.org https://hamexam.org https://www.grz.com https://hamradioprep.com



# The Kentucky Colonels Amateur Radio Club

## Serving The Kentucky Amateur Radio Community Since 1956

In the summer of 1956, a group of amateur radio operators in Bowling Green, Kentucky, organized the Warren County Radio Club.

On November 17, 1956, the club located in Bowling Green KY, applied for ARRL Affiliation with 18 licensed radio amateurs in the club of whom 14 were ARRL members. In April 1957, the ARRL approved the application and the club was issued a charter. The club call was K4OCH. The club offered their services to the city of Bowling Green for Civil Defense in 1962 and received affirmative replies from Mayor Robert Graham and Sheriff Hubert Phelps.

In September 1962, a motion was approved to adopt the name of Kentucky Colonels. It required approval and commissioning by the Governor and Lt. Governor and a letter was sent to Lt. Governor Wilson Wyatt who had given verbal approval. Final approval was received in 1963 and the club became the Kentucky Colonels Amateur Radio Club, **KCARC**.

In 1965, the club station call was WA4VXO. It was later changed to K4LOL and is currently KY4BG.

Today the club has over 50 members and meets once a month to discuss club business, meet new hams and watch special informative presentations on Ham radio topics.

### SPECIAL EVENTS

Every year the KCARC holds special events and meetings for its members such as picnics ,holiday meetings and demonstrations about Ham radio at various public events

#### **FIELD DAYS**

In the summer and winter members set up special stations outdoors for field day to practice emergency communicators making radio contacts all around the world.

#### **HAMFESTS CONVETIONS**

The first hamfest of the Kentucky Colonels Amateur Radio Club was August 4, 1963 at Beech Bend Park. The yearly event has become the **VETTE CITY HAMFEST.** Hams buy and sell used equipment and can buy new equipment from vendors who came to the event from all over the country.





VETTE CITY HAMFEST



WINTER FIELD DAY



### FOR FURTHER CLUB INFORMATION ON THE WEB VISIT

Official Club Web Site: https://ky4bg.com/

Facebook Page: https://www.facebook.com/groups/662717330811959

Contact us at: https://ky4bg.com/contact-us/

National Association Of Amateur Radio: https://www.arrl.org/

KCARC P.O. Box 50763 Bowling Green KY. 42102