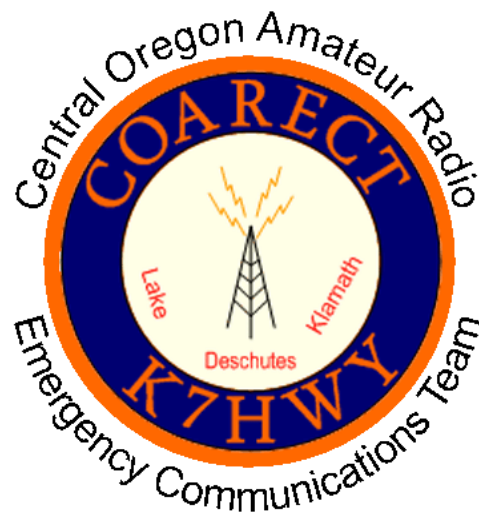


INTRODUCTION TO AMATEUR RADIO

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What is the difference between amateur radios?

All radios that non-professionals use to transmit voice or data are amateur radios, such as:

Family Radio Service (FRS), small walkie talkie handheld, low power, short range.

General Mobile Radio Service (GMRS), small walkie talkie handheld, short range.

Citizen Band (CB), medium range, handheld, mobile, and base station radios.

Amateur Radio (HAM) close range to worldwide, handheld, mobile and base station radios.

There are basically four differences between these radio groups; power, frequencies, range and license requirements. FRS and CB radios do not require a license, GMRS and HAM radio require a FCC license. The only Amateur Radio type that uses high power, more frequencies and transmits longer distances are HAM radios. With HAM radio you can talk to the Space Station or bounce messages off the moon. Your HAM radio license also allows you to use your cell phone as a HAM radio.

What is Amateur Radio?

Amateur radio, often called “ham radio,” is more than just a hobby—it’s a community of enthusiasts who connect with others, experiment with electronics, and provide vital communication during emergencies. Unlike the internet, cell towers, or the electrical grid, amateur radio can operate independently, keeping you connected no matter where you are or what’s happening around you. Whether you’re chatting with a neighbor, tinkering with a new antenna, or helping out in a crisis, amateur radio opens up a world of possibilities. (Hamstudy.org)

Why is Amateur Radio called HAM Radio?

There are many explanations and theories about why Amateur Radio was nicknamed HAM radio. Some say it is an acronym derived from the last name initials of three early Amateur Radio operators who started early radio use. Others think “The term “ham” for amateur radio operators comes from a derogatory term used by professional telegraph operators in the 19th century to describe operators with poor Morse code skills. The term was “ham-fisted”. Don’t worry, Morse code is no longer a requirement to get your HAM radio license. No matter where the term came from, it is now the commonly used name for Amateur Radio.

More than a Hobby?

Sure, amateur radio is fun, but it’s also a vital tool in emergencies. When disaster strikes and cell towers go down, radio operators often step in to keep communication lines open.

For example, during Maui fire in 2023, amateur radio operators in Hawaii provided critical communication support when much of the island’s infrastructure was destroyed. They relayed emergency messages, helped coordinate relief efforts, and even assisted in reuniting families who had lost contact during the disaster.

But it's not just about emergencies. Amateur radio is a community of tinkerers and explorers. You'll find hams experimenting with new technology, building their own gear, and pushing the limits of what's possible. Whether you're in it for the technical challenge, the thrill of independent communication, or the chance to help out in a crisis, amateur radio has something for you.

(Hamstudy.org)

What is the purpose of Amateur Radio?

The Federal Communications Commission (FCC) regulates and enforces the rules for the Amateur Radio service in the United States and it was established with specific purposes in mind. These form the basis and purpose of our hobby and service:

1. Advancing skills in both the technical and communication aspects of radio.
2. Expanding the pool of trained operators, technicians, and electronic experts.
3. Enhancing international goodwill through global communications.
4. Providing a voluntary noncommercial communication service to the public, especially in times of emergency.
5. Contributing to the advancement of radio art.

These purposes highlight the multifaceted nature of amateur radio - it's not just a hobby, but a service with important technical, social, and public safety roles. As you progress in amateur radio, you'll find opportunities to fulfill each of these purposes, whether you're experimenting with new technologies, making friends across the globe, or helping your community during emergencies. (Hamstudy.org)

Does HAM radio operation require a FCC license?

Yes, the FCC does require a license to transmit information over the radio airways. It does not require a license to listen to HAM radio information, just like listening to AM / FM radio. There is a limited number of radio frequencies available for radio use. Cell phone, TV, AM / FM radio, Aircraft, Marine, Emergency Responders and Military are just a few groups who share frequencies within radio frequencies available. The FCC regulates which groups use what frequencies to limit interference between groups. The FCC wants to ensure that Amateur Radio operators understand these rules and regulations. Thus, they are required to study and pass license tests in order to broadcast on HAM Radio frequencies.

How do you study for your Amateur Radio License?

There are three Amateur Radio license levels: Technician, General and Amateur Extra. You must have a Technician license to start using limited Amateur Radio frequencies. More frequencies open up to you when you pass the General and Amateur Extra license tests. There are several ways to study for Amateur Radio license tests. Here are a few of them:

1. Classroom instruction live or online.
2. Manuals
3. Online license practice tests

Where do you find FCC HAM radio testing?

Test sites are available across the United States and other countries. The American Radio Relay League (ARRL) has an agreement with the FCC to conduct HAM Radio license testing for the FCC in the United States. ARRL's website (ARRL.org) list testing sites, test dates and times across the nation. The COARECT HAM radio team administers HAM license tests for south Deschutes, north Klamath and north Lake counties at the La Pine Library every other month. You are allowed to take HAM radio tests anywhere they are offered.

How much does it cost to get a HAM radio license?

Studying for your license test varies from \$0 to online courses / books that cost varying amounts. It costs \$15 to take the test and when you pass, your license from the FCC costs you \$35. Your license is good for 10 years.

How much do HAM radios cost?

Your first HAM radio can cost as little as \$25-\$35. You do not have to spend a large amount of money to have fun with HAM radios.

Do you need to join a HAM radio group, club or team?

No, you can have as much fun as you want without joining a HAM radio group. However, there are many advantages to becoming a member of a HAM radio organization. Learning from experienced HAMs, fun activities, used equipment at great price savings and fellowshiping with HAMs who love to talk on their radios are just a few of the advantages when you join a HAM group.

How do you get started?

There are a couple of options. You can go online and follow ARRL's instructions on getting started, contact a local HAM group or talk to someone who is a licensed HAM. HAM radio operators are pleased to help people get their HAM radio license. Contact COARECT, Central Oregon Amateur Radio Emergency Communications Team, in the La Pine, Sunriver and Gilchrest areas for information on how to get started. Contact information is available at COARECT.com.

This guide is a product of the COARECT radio team and is intended for use in promoting Amateur Radio use. We thank all the providers of information in this publication. For more information about HAM radio use or COARECT, contact Mike, 503-339-5654, Marc, 541-771-6699, or Beverly, 541-419-5101.