

What is HAM Radio?

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About the Author

I was first introduced to HAM Radio when my dad dragged me into studying. At first I had no idea what I was getting into. But when I started participating in nets and events, it sparked my interest. I wrote this article simply to help myself explain it to friends who did not understand it well.



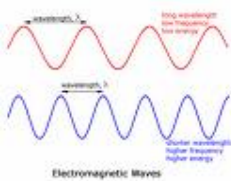
Intro and how to get a license

HAM or Amateur Radio is a fun way of communicating widely used around the globe. To be a HAM you must study for and pass a test made up of 35 multiple choice questions randomly chosen from a list of 391 questions. At most 9 questions can be answered incorrectly to pass. There are different levels of being a HAM. Technician (first question pool), General (second question pool) and Extra (third question pool of 50 chosen for the test). The level determines the operating privileges for the licensee.



Bands

The operating privileges are also which "bands" operators can use. Band names consist of 2-meters, 70-centimeters, 10-meters, 80-meters and other select measurements. the length of the band is how far the radio waves jump before bouncing again. The most widely used and known is the 2-meter band.



Call Signs

When licensed, a HAM receives a call sign chosen sequentially with certain other traits. The format can be 2-by-3, 2-by-1, or 1-by-2. a 2-by-3 is most commonly the first assigned format. a 2-by-3 would look like this, KI6UPY. The

'by' is the numeral. The numbers in the format name resemble letters. The first letter of a call sign can either be A, K, N, or W, the second (if letter)



can be any letter of the alphabet chosen sequentially. The numeral is dependant on the area code of the operator,. The Final part of the call sign is called the suffix and consists of the letters after the numeral, assigned sequentially. Breakdown KI6UPY. K (first letter) I(sequential letter) 6(area code) UPY(Suffix).

Antennas

The bigger the antenna, the further your transmission will travel. Different types of antennas consist of Directional, Dipole, J-Pole, and other designs.

The antenna matters. Many HTs (handheld radios) come with a 'rubber ducky' or a stubby, a rubber antenna with a low rating. this can be replaced in many cases. See figure 4.

Wattage and output power

The higher the output power, the farther the signal will travel. Most HTs will have a maximum of 5 watts output. Mobile (vehicular) stations will have near 45 watts output. This is placed in line with the antenna and station.



Nets

A net or network is like an over the air meeting where there is a net control and the net members. They are scheduled and organized events.

Clubs

There are also active clubs operators can join. These clubs are normally named by area, for example, The El Cajon Amateur Radio Club. Clubs will often host club nets and other events. Clubs can apply for club call signs that all members are free to use in events. Clubs are the best way to get and stay involved with HAM radio and have support and someone to learn from.

Starting points

The best way to start using your license is simply by buying a handheld radio and a fractional wavelength mag-mount antenna. With it you can easily place it on the roof of a car and join in on nets almost every night of the week. The next step up is a mobile station. You can use a simple mag-mount antenna but the most commonly used with a mobile is an antenna that retracts down approximately 1 foot. The next step is a base station in the comfort of your own home.



CW (Morse Code)

CW, more widely known as Morse code, is the international code made up of dits and dahs. Dits being shorter beeps, and dahs being longer beeps. CW is performed over the air with a key, A simple button that touches conductors together releasing a beep into the 'air stream'.

