



On the web: www.rars.org

What is Amateur Radio?

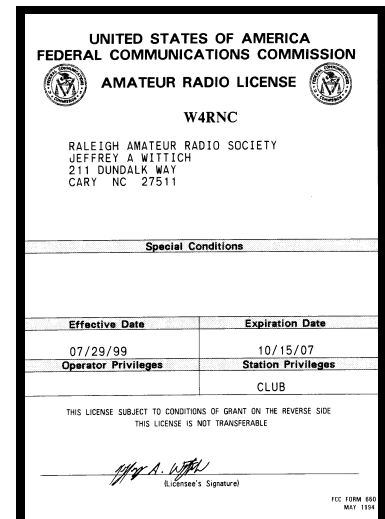
Amateur Radio is a worldwide, non-commercial, radio communications hobby and service.

It's a *hobby* because most Amateur radio operators, or "hams," are drawn by a fascination with radio communications. It's a *service* because each ham is licensed by the Federal Communications Commission after passing an examination, and because we earn the privilege to use the radio spectrum we occupy by advancing the communications art, and providing service to the public.

There is tremendous variety in Amateur Radio, but most Amateurs have equipment in their home, in their vehicle, or even handheld that allows them to communicate by radio locally and worldwide. The communication is direct from radio to radio - no wires, and no phone companies or service providers are in the middle.

Most of the time, Amateur Radio operators enjoy their hobby by casually communicating with other hams using voice, Morse code, several digital modes (computer to computer) and even television.

What do we talk about? Anything! We talk about radio a lot, since that's what we all have in common. But we also talk about what *you* talk to friends about - family, other hobbies, our jobs, even some politics now and then. We can't communicate for business, though. Amateur Radio is non-commercial by FCC rules.



What is ARES?

On the web: www.wakeares.org

A communications system that doesn't depend on phone lines or commercial power can be pretty handy in an emergency or disaster when the power's out and the telephone system is either dead or overloaded. That's why hams formed **ARES - the Amateur Radio Emergency Service**. Through ARES, Amateur Radio helps county and state Emergency Management, the Red Cross, the Salvation Army and other disaster recovery and relief agencies by providing



communications when no one else can. In North Carolina, hurricanes are the biggest threat. But ARES has been called out to help following tornadoes, ice storms, floods, and even after a backhoe cut through a major telephone artery.

ARES also helps the National Weather Service through the **SKYWARN** program. Our radios make it easy for us to forward "spotter" reports directly to the meteorologists at the NWS office, giving them "eyes" below the storms.



Amateur Radio Mobile Communications

Amateur Radio is a very mobile hobby. Many of our vehicles are equipped for local and worldwide communications. Ask one of our operators for a demonstration!



But ham radio is even more mobile than this. You'll see many of our operators carrying what look like cell phones. OK, some of them *are* cell phones, but if they have a little bit taller antenna, they are probably handheld Amateur Radio stations. We'll be glad to show you how they work.

Some hams have equipment installed on motorcycles and bicycles. We really do go everywhere.



How far can we talk?

That's the most common question we hear. The answer is a little complex. Of course, some of our equipment can communicate worldwide. Mobile High Frequency radios are used routinely to talk to hams in Europe and South America, even as far as Australia. The handheld radios range is just a few miles, but using repeaters - relay devices on tall buildings or towers - we can use them to talk 50 miles or more. There are over 40 Amateur Radio repeaters in the Triangle area.

More Amateur Radio Public Service

Amateur Radio's service to the community is not limited to emergencies. We use our versatile system and enthusiastic operators to provide safety and logistics communications for bike tours, walk-a-thons, triathlons and races sponsored by the MS Society, the American Diabetes Association, Duke Liver Center and many others. The **Central Carolina Helping Hams** is the "umbrella" organization that organizes communicationis for these events. Find them on the web at:

www.HamPublicService.org.



On the web: www.rars.org

How Can I Become a Ham?



Anyone can become a ham. There is no age limit. While the majority of hams have some interest in communications technology before they enter the hobby, you certainly do not have to be an engineer, or even have any technical training.

Before transmitting, every ham must earn a license from the FCC by passing a test. The tests cover basic electronics, regulations, radio operation and safety. Morse code is not required for the entry level license, but a 5 word-per-minute test is required for the higher classes.

Several area Amateur Radio Clubs teach ham radio classes each year. Find out about the next class on the **Raleigh Amateur Radio Society** web page: www.rars.org. Can't remember all these web addresses? Just use any search engine to find the key words "Amateur Radio Raleigh" and we'll pop right up!



Where did the term "Ham Radio" come from?

This is our second most frequently asked question. Unfortunately, nobody knows for sure. The term "ham" began before the dawn of radio, with the railroad telegraph operators. It was a somewhat affectionate insult applied to new operators on the 'wire.'



When radio arrived around 1900, the first two decades were all wireless telegraphy.

Voice operation began in the '20s. Early commercial and military radio operators were drawn from the ranks of the professional wired

telegraphers. You can imagine their reaction to the "amateurs" who shared the airwaves - they were not pleased, especially since the technology of the day mixed everyone's signals together and sometimes resulted in interference between the "amateurs" and the professionals.

So they probably called these newcomers "hams," too. How it changed from an insult to a term the Amateurs proudly applied to themselves is lost to history.