



#### **Tech Terms**

#### Ham

An amateur radio operator (nobody knows why)

#### Ham rid

An amateur radio transceiver

#### Transceiver

Combined transmitter and receiver in one unit

#### Mobile rig

A mobile amateur radio, like you see in police cars

### Voice rig

A radio you can talk into; most mobile rigs are also voice rigs

#### Dit-dah

Radio term for Morse code (replaces the print-based "dot-dash")

### **Ham Activities**

#### DX

Distant contact (definition of "distant" depends on the radio frequency)

#### DXCC

An award given to a ham for confirmed contacts in one hundred different countries

### DXer

A ham who vigorously pursues distant contacts

# **Ham Radio**

It's like a wireless telephone, except that you need a license. It's like immediate email, except that it isn't anonymous. Socially responsible and globally oriented, ham radio could be the last refuge for the geek in this age of graphical user interfaces.

by Karen Whitehouse July 28, 1997

Amateur radio enthusiasts, called "hams," were hackers long before the computer was invented. In 1901, Guglielmo Marconi sent the first radio signal across the Atlantic, which marked the birth of radio. Since then, hams have been building their own radios and antennas, communicating with each other by transmitting digital radio signals through the air.

Technology advances have made it much easier to participate in amateur radio. You can transmit voice signals in much the same way as you'd use a walkie-talkie. In fact, the FCC recently dropped the Morse code requirement for a ham license. And commercially made transceivers (combined transmitters and receivers, a.k.a. "rigs") and antennae are widely available. However, just because you no longer **have** to be a geek to be a ham doesn't mean that ham radio can't bring out your geek tendencies.

For example, packet radio lets you send any digital data stream from your rig to another radio. A device called a terminal node controller connects your computer and your transceiver, translating what you type into radio signals—and translating the audio signals from the radio into something your computer can understand. The TNC can even aim your antenna for you. Depending on the frequency, communication is 300 to 1,200 bits per second—but it doesn't take up a phone line.

There's a lot of amateur radio information on the

#### DX spotting network

A group of DXers who team up to scan for signals from unusual countries

#### Elmer

An experienced ham who offers his or her expertise to guide new and perspective hams

#### Field Day

An exercise in which teams of hams compete to set up self-powered radio transceivers, to practice for natural (and manmade) disaster conditions

#### Homebrew

Describes equipment a ham makes him- or herself; opposite of offthe-shelf Internet. Here are a few suggestions to get started.

### OffSite Resources

### **Reference Works**

## American Radio Relay League

The ARRL's website contains a searchable callsign database, FCC information, "hamfest" listings and more. The membership publication is QST, a popular magazine for ham radio enthusiasts. The ARRL Educational Activities Department (EAD) distributes a free New Ham Package that describes amateur radio and popular ARRL study guides, and includes a list of your local ham radio clubs, ham radio classes and volunteer examiners in your area. New and prospective hams can call 1-800-32-NEW HAM (800-326-3942).

### Ham Radio FAQ

This document, which started as the frequently asked questions file from rec.radio.amateur.misc, has grown into a comprehensive source of amateur radio information gathered from all sorts of sources.

## Phonetic Alphabet

The short answer to how to spell out callsigns, and other info. The full alphabet is: Alpha Bravo Charlie Delta Echo Foxtrot Golf Hotel India Juliet Kilo Lima Mike November Oscar Papa Quebec Romeo Sierra Tango Uniform Victor Whiskey Xray Yankee Zulu. Phonetics for digits: zero one two tree fower fife six seven eight niner.

### QRZ!

The homespun business behind Walnut Creek's ham radio CD-ROM, also called QRZ. It's a database of callsigns from the files of the Federal Communications Commission, which regulates amateur radio. From the QRZ site: "What do the letters QRZ stand for? Well, back in the days when radio telegraphy was widely used, QRZ was a shorthand code which meant 'Who is calling me?' It's still used today, even by voice operators during contests or when they simply didn't hear the complete call."

## Amateur Station Sequential Call Sign System

Like Social Security numbers, ham radio callsigns encode geographical information (and more) about their owners. Unpack the American callsign with this guide from the FCC.

## Ham Radio Online

An extensive amateur radio ezine. Lots of good feature stories, including how to communicate with the Mars Pathfinder probe and Mir guest Michael Foale's radio link to the outside world.

#### Amateur Radio WWW Bookmark File

This site's got a ton of amateur radio links, including homepages for local radio clubs and individual hams.

### **People**

# Callsign Servers

A list of callsign servers, where you can look up the human name behind the alphanumeric codes. Even more comprehensive than Yahoo's list.

## **QRZ** Callsign Database

A searchable callsign database presented by **QRZ**. You can search by callsign or even by name. It returns the sign-holder's street address, license class, exact geographical location (so you can aim your antenna correctly) and email address, if available.

### Elmers List

An "Elmer" is someone who helps radio newbies get their licenses, equipment... and bearings. This site lists 200 Elmers from 40 countries who are willing to help anyone who asks to get into amateur radio. The site describes the Elmer system thusly: "Like many of the traditional crafts, a variation of the Master-Apprentice system has emerged, the Elmer-Novice relationship."

#### Nashua Area Radio Club

Just one of many local radio clubs. (This is the one my stepfather, K1TCD, belongs to.) Search for "Amateur Radio Club *yourtown*" to find one near you.

#### Chats

## #HamRadio

IRC at Undernet. A place for hams to come together and talk about the latest and greatest radios.

### Amateur Radio Chat Room

Ham chat at the WebChat Broadcasting System, hosted by ham radio enthusiast Timothy Connolly, KB8EHT.

## Cenois Amateur Radio Club chat room

The Cenois Amateur Radio Club of Decatur, Illinois. established in 1934. hosts a Java-based

chat room.

# **Usenet groups**

ec.radio.amateur.antenna

Antenna-related topics.

rec.radio.amateur.digital.misc

Digital communications, including packet radio.

rec.radio.amateur.equipment

Radio equipment discussions.

rec.radio.amateur.homebrew

Building your own radio equipment.

rec.radio.amateur.misc

General newsgroup for ham radio topics.

rec.radio.amateur.space

Ham radio and space communications—talk to the space shuttle!

If you have comments, send them to <a href="mailto:karen\_whitehouse@zd.com">karen\_whitehouse@zd.com</a>

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