



## Radio terminology and abbreviations

<b>Amplitude</b>	The strength, or "loudness" or intensity of the wave. For wavelengths up through radio
<b>Amplitude Modulation (AM)</b>	A means of adding voice or data to a radio frequency transmission by varying the amplitude of the carrier frequency. Broadcast stations in the "AM" band on a car radio use this modulation technique. AM is susceptible to static from electrical sources such as atmospheric noise, thunderstorms and electrical appliances.
<b>Automatic Packet Reporting System (APRS)</b>	A protocol that uses packet radio to transmit data that depicts the position of a station with other
<b>Automatic Terminal Information Service (ATIS)</b>	ATIS is a continuous broadcast of recorded information at selected high activity airports.
<b>Call Sign</b>	Each Amateur Radio station is assigned a call sign by the government of that country which allows the operator to transmit in the amateur radio bands.
<b>Coordinated Universal Time (UTC)</b>	This is an international standard time. It is time at Greenwich, England. With one clock as a standard, it ensures that operations which cross time zones do not have problems referencing the exact time.
<b>Electromagnetic Spectrum</b>	The range of frequencies of electromagnetic radiation from zero to infinity. Note: The electromagnetic spectrum was, by custom and practice, formerly divided into 26 alphabetically designated bands. This usage still prevails to some degree. However, the ITU formally recognizes 12 bands, from 30 Hz to 3000 GHz. New bands, from 3 THz to 3000 THz, are under active consideration for recognition.
<b>Federal Communications Commission (FCC)</b>	The FCC was established by the Communications Act of 1934 and is charged with regulating interstate and international communications by radio, television, wire, satellite, and cable. Its jurisdiction covers the 50 states and territories, the District of Columbia and U.S. possessions.
<b>Frequency</b>	For a periodic function, the number of cycles or events per unit time.
<b>Frequency Modulation (FM)</b>	A means of adding voice or data to a radio frequency transmission by varying the carrier frequency. Broadcast stations in the 88-108 MHz "FM" band and television station sound channels use this modulation technique. FM is relatively insensitive to the static sources that AM is prone to.
<b>Global Positioning System (GPS)</b>	Refers to a constellation of GPS satellites and associated ground systems that are used for navigation.
<b>Great Circle</b>	The intersection of a plane through the center of the Earth and the surface of the Earth. The shortest distance between two points on the Earth is a great circle route. All longitudes are great circles. The only latitude that is a great circle is the Equator.
<b>Greenwich Mean Time (GMT)</b>	This term has been replaced with Coordinated Universal Time (UTC).
<b>hertz (Hz)</b>	1. The SI unit of frequency, equal to one cycle per second. Note: A periodic phenomenon that has a period of one second has a frequency of one hertz.

	2. A unit of frequency which is equivalent to one cycle per second.
<b>High Frequency (HF)</b>	Radio frequencies in the band from 3 to 30 MHz.
<b>Knot</b>	A speed of one nautical mile per hour.
<b>Latitude</b>	An angular measurement of a point on the earth, north or south of the equator. Latitude is 0 degrees at the equator, +90 degrees at the North Pole, and -90 degrees at the South Pole.
<b>Longitude</b>	The angular measurement of a point on the earth's surface, east or west of the prime meridian. The prime meridian runs through Greenwich, England and is 0 degrees longitude. Since measurements are made East and West, the maximum longitude value is 180 degrees. Mathematically, longitudes are usually denoted as positive for easterly longitudes (e.g., +71 degrees = 71 E), and negative for westerly longitudes (e.g., -65 degrees = 65 W).
<b>Megahertz (MHz)</b>	One million cycles per second. Used to describe a radio frequency.
<b>Modulation</b>	The process, or result of the process, of varying a characteristic of a carrier, in accordance with an information-bearing signal.
<b>Nautical Mile</b>	A distance of 6076.11549 feet which is one minute of arc of a great circle of the Earth.
<b>Packet</b>	A single group of digital signals sent from an originator to an addressee.
<b>Packet Radio</b>	The radio transmission of data in packets between stations.
<b>Radio Frequency (RF)</b>	Radio frequency refers to a signal generated by a radio transmitter and sent out through an antenna. The frequency of the transmission is described in terms of the number of cycles per second or Hertz (Hz). A radio would be tuned to this frequency in order to receive the transmission. A radio signal is sometimes referred to by its initials, "RF".
<b>Squelch Control</b>	This control on a radio is used to silence the inherent background noise in a radio receiver so that only signals that appear above this background will be heard. To set a squelch control, turn it until the background noise is heard and then rotate the control until the noise just stops.
<b>Statute Mile</b>	A distance of 5,280 feet.
<b>Telemetry</b>	Transmission of radio signals and coded data from a space vehicle.
<b>Terminal Node Controller (TNC)</b>	A device that converts and controls the radio transmission and reception of digital signals from a computer.
<b>Ultra High Frequency (UHF)</b>	Radio frequencies in the band from 300 to 3,000 MHz.
<b>Very High Frequency (VHF)</b>	Radio frequencies in the band from 30 to 300 MHz.
<b>Wavelength</b>	A wavelength is the distance a wave travels through space in a single cycle. It can be measured from any point along the wave as long as it is consistently measured from the same point. The speed of the wave is equal to the frequency times the wave length. The amplitude of a wave is the maximum displacement on either side of the midpoint of a wave. The midpoint is the point at which the wave is at rest.