

Q Signal Meaning

- QRL** Is the frequency busy? The frequency is busy. Please do not interfere.
- QRM** Abbreviation for interference from other signals.
- QRN** Abbreviation for interference from natural or man-made static.
- QRO** Shall I increase power? Increase power.
- QRP** Shall I decrease power? Decrease power.
- QRQ** Shall I send faster? Send faster (WPM).
- QRS** Shall I send more slowly? Send more slowly (___WPM).
- QRT** Shall I stop sending? Stop sending.
- QRU** Have you anything more for me? I have nothing more for you.
- QRV** Are you ready? I am ready.
- QRX** Standby.
- QRZ** Who is calling me?
- QSB** Abbreviation for signal fading.
- QSL** Received and understood.
- QSO** Abbreviation for a contact.
- QST** General call preceding a message addressed to all amateurs.
- QSX** I am listening on ___ kHz.
- QSY** Change to transmission on another frequency (or to ___ kHz).
- QTH** What is your location? My location is _____.

NATO Phonetic Alphabet

- | | | | |
|--------------------|---------------------|--------------------|------------------|
| A - Alfa | B - Bravo | C - Charlie | D - Delta |
| E - Echo | F - Foxtrot | G - Golf | H - Hotel |
| I - India | J - Juliet | K - Kilo | L - Lima |
| M - Mike | N - November | O - Oscar | P - Papa |
| Q - Quebec | R - Romeo | S - Sierra | T - Tango |
| U - Uniform | V - Victor | W - Whiskey | X - X-Ray |
| Y - Yankee | Z - Zulu | | |

The “RST” Signal Reporting System

READABILITY

- 1-Unreadable.
- 2-Barely readable, occasional words distinguishable.
- 3-Readable with considerable difficulty.
- 4-Readable with practically no difficulty.
- 5-Perfectly readable.

SIGNAL STRENGTH

- 1-Faint signals barely perceptible.
- 2-Very weak signals.
- 3-Weak signals.
- 4-Fair signals.
- 5-Fairly good signals.
- 6-Good signals.
- 7-Moderately strong signals.
- 8-Strong signals.
- 9-Extremely strong signals.

TONE (*CW Morse Radiotelegraph only*)

- 1-Sixty-cycle ac or less, very rough and broad.
- 2-Very rough ac, very harsh and broad.
- 3-Rough ac tone, rectified but not filtered.
- 4-Rough note, some trace of filtering.
- 5-Filtered rectified ac but strongly ripple-modulated.
- 6-Filtered tone, definite trace of ripple modulation.
- 7-Near pure tone, trace of ripple modulation.
- 8-Near perfect tone, slight trace of modulation.
- 9-Perfect tone, no trace of ripple or modulation of any kind

The "tone" report refers only to the purity of the signal, and has no connection with its stability or freedom from clicks or chirps.

- If the signal has the characteristic steadiness of crystal control, add X to the report (e.g., RST 469X). If it has a chirp or "tail" (either on "make" or "break") add C (e.g., 469C).
- If it has clicks or noticeable other keying transients, add K (e.g., 469K).
- Of course a signal could have both chirps and clicks, in which case both C and K could be used (e.g., RST 469CK).

When operating Voice, the “Readability” and “Signal Strength” only are given. For example, “You are five nine”. Or “I receive you three five”

144 MHz Band Plan

FREQ (MHz)	DESCRIPTION
144.00-144.05	EME (CW)
144.05-144.10	General CW and weak signals
144.10-144.20	EME and weak-signal SSB
144.200	National calling frequency (SSB)
144.200-144.275	General SSB operation
144.275-144.300	Propagation beacons
144.30-144.50	New OSCAR sub-band
144.50-144.60	Linear translator inputs
144.60-144.90	FM repeater inputs
144.90-145.10	Weak signal and FM simplex (145.01,03,05,07,09 are widely used for packet)
145.10-145.20	Linear translator outputs
145.20-145.50	FM repeater outputs
145.50-145.80	Miscellaneous and experimental modes
145.80-146.00	OSCAR sub-band
146.01-146.37	Repeater inputs
146.40-146.58	Simplex
146.52	National Simplex Calling Frequency (FM)
146.61-146.97	Repeater outputs
147.00-147.39	Repeater outputs
147.42-147.57	Simplex
147.60-147.99	Repeater inputs
146.685	Output from EVARC Two Meter Repeater
146.085	Input to EVARC Two Meter Repeater
145.010	Input/Output from EVARC digital RMS station (packet radio)

430 MHz Band Plan

FREQ (MHz)	DESCRIPTION
420.00-426.00	ATV repeater or simplex with 421.25 MHz video carrier control links and experimental
426.00-432.00	ATV simplex with 427.250-MHz video carrier frequency
432.00-432.07	EME (Earth-Moon-Earth)
432.07-432.10	Weak-signal CW
432.10	70-cm calling frequency (CW or SSB)
432.10-432.30	Mixed-mode and weak-signal work
432.30-432.40	Propagation beacons
432.40-433.00	Mixed-mode and weak-signal work
433.00-435.00	Auxiliary/repeater links
435.00-438.00	Satellite only (internationally)
438.00-444.00	ATV repeater input with 439.250-MHz video carrier frequency and repeater links
442.00-445.00	Repeater inputs and outputs (local option)
445.00-447.00	Shared by auxiliary and control links, repeaters and simplex (local option)
446.00	National simplex frequency (FM)
447.00-450.00	Repeater inputs and outputs (local option)
449.80	Output from EVARC 70 CM Repeater
444.80	Input to EVARC 70 CM Repeater

Links

<http://www.arrl.org/>

ARRL is the national association for Amateur Radio

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www.arrl.org/ares

Amateur Radio Emergency Service® (ARES)

The Amateur Radio Emergency Service® (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment, with their local ARES leadership, for communications duty in the public service when disaster strikes.

<http://www.coloradoares.org/>

Colorado Amateur Radio Emergency Service

This organization covers the entire State of Colorado. It can provide resources to individual cities and towns as required.

<http://www.coloradoaresd10.org/>

District 10, Colorado Amateur Radio Emergency Service

CO ARES D-10 is responsible for Northern Colorado — Larimer and Weld counties.

This district has an Emergency Coordinator and Assistant Emergency Coordinators. This district covers Estes Park. This website has a suggested 'go-bag' list.

<http://www.arrl.org/files/file/Technology/tis/info/pdf/voip.pdf>

ARRL QST Magazine Article

VoIP and Amateur Radio, February 2003, by Steve Ford. This includes a discussion of both IRLP and EchoLink. Both of these systems are installed on our EVARC repeaters.

<http://www.irlp.net/>

Internet Radio Linking Project

IRLP operates a worldwide network of dedicated servers and nodes offering very stable worldwide voice communications between hundreds of towns and cities. All this with unsurpassed uptimes and the full dynamic range of telephone quality audio.

<http://www.echolink.org/>

EchoLink

EchoLink® software allows licensed Amateur Radio stations to communicate with one another over the Internet, using streaming-audio technology. The program allows worldwide connections to be made between stations, or from computer to station, greatly enhancing Amateur Radio's communications capabilities. There are more than 200,000 validated users worldwide — in 162 of the world's 193 nations — with about 5,000 online at any given time.

[CQ VHF Fall 2011](#)

FM by Bob Witte, KØNR, p 72 ff.

<http://www.rmvhf.org>

Rocky Mountain VHF+

Features SSB and CW. Meets Monday-Friday at 8:00 p.m. Saturday at 9:00 a.m.

Mon 144.220 MHz; Tue 222.10 MHz; Wed 432.10 Mhz; Thur 1296.10 MHz; Fri 902.10 MHz; and Sat 50.130 MHz.

Reference Materials

<http://www.fema.gov/emergency/nims/NIMSTrainingCourses.shtm>

FEMA and NIMS Training

The NIMS Training Program defines the national NIMS training program as it relates to the NIMS components of Preparedness, Communications and Information Management, Resource Management, and Command and Management. It specifies NIC and stakeholder responsibilities and activities for developing, maintaining, and sustaining NIMS training. The NIMS Training Program outlines responsibilities and activities that are consistent with the National Training Program, as mandated by the Post-Katrina Emergency Management Reform Act of 2006. This program integrates with FEMA training offered through the Emergency Management Institute (EMI) and United States Fire Administration (USFA).

<http://www.arrl.org/contest-calendar>

ARRL Contest Calendar

Includes a list of both ARRL and other contests.

<http://www.eham.net/newham/activities>

eHam

Describes activities for new hams.

<http://www.dxwatch.com/>

DX Cluster

Provides a list in real time of DX station hear and their frequencies.

<http://www.k4uee.com/dvd>

Adventures in Ham Radio

DVDs of Ham Radio DXpeditions.

<http://arvideonews.com/>

Amateur Radio Video News

Provides DVDs of many ham radio conferences and activities.

<http://www.tapr.org/>

Tucson Amateur Packet Radio

Promoted packet radio for over 25 years. Provides an annual weekend conference of technical papers.

<http://www.winlink.org/>

WinLink 2000

Description of the digital VHF RMS Server which we have on Pole Hill. There are descriptions on how to get started. Also information on HF packet.

<http://www.arrl.org/fsd-218-amateur-message-form>

ARRL

Instructions for formal radiogram messages.