

HARGRAVE'S COMMUNICATIONS DICTIONARY

Frank Hargrave



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real power See *effective power*.

real time Pertaining to:

- The actual time during which a physical process occurs,
- The computation of control information during the time of an actual process so that the results may be used to direct the process,
- The processing of data by a computer in relation to an external process and in accordance with the time requirements of the external process, or
- A time-keeping circuit arranged so that its output is synchronous with the time used in every day life. This is also called a *real-time clock*.

real-time kinematics (RTK) A differential Global Positioning System (DGPS) procedure in which carrier phase correction information is transmitted from the reference receiver to the user receiver as it is received (in real time).

real-time transport protocol (RTP) An Internet protocol developed by the Internet Engineering Task Force (IETF) to address the problems encountered with the transmission of time-sensitive data (such as speech or video) across a local area network (LAN). The basic action of *RTP* is to give these time-critical data packets higher priority than normal connectionless data. The *RTP protocol* layer resides above the Internet protocol (IP) and datagram protocol layers.

reasonableness check A test on the data received by a real-time system to verify that the data falls into an expected range of values or that it conforms to specified criteria for the particular operating state in which the system currently resides. It can be used in error detection or to eliminate questionable data points from subsequent processing. Also called *wild point detection*.

reassembly In a data packet system, the process a receiving station performs to reconstitute the original message. The process is basically the concatenation (joining end to end) of the data portion of received packets. See also *fragmentation* (3).

REC (1) An abbreviation of *RECEIVE*. (2) An abbreviation of *RECOVER*.

rec hierarchy One of the seven *world newsgroups* in USENet. The *rec* newsgroups report on recreational, entertainment, and sports activities such as aviation, backpacking, cars, comics, fishing, ham radio, hiking, hunting, kites, movies, music, pets, scuba diving, skiing, and on, and on. See also *newsgroup hierarchy*.

recall A feature of private branch exchange (PBX) systems that allows a user to obtain a second dial tone without going on- and off-hook. The feature is frequently activated by a *recall button* on the subset.

receive after transmit time delay In half-duplex operation, the time interval between the instant a local transmitter is keyed-off and the instant the local receiver output has increased to 90% of its steady-state value in response to an existing radio frequency signal from a distant transmitter.

receive characteristic In telephony, the acoustic output level of a telephone set as a function of the electrical input power. The input signal is from a test generator delivering known power at a specified impedance, and the output is measured in an artificial ear.

receive only (RO) A term that describes a device that is capable of receiving signals but is not arranged to send or transmit signals.

received noise power (1) The calculated or measured noise power, within the bandwidth being used, at the receive end of a transmission circuit, channel, link, or system. (2) The absolute power of the noise

measured or calculated at a receive point. The related bandwidth and the noise weighting must also be specified. (3) In telephony, the value of noise power, from all sources, measured at the line terminals of the telephone set's receiver. The specific amplitude-frequency characteristic or noise-weighting characteristic (flat, C-message, psophometric) must be designated with the measurement.

received signal level (RSL) The signal level, in a specified bandwidth, at a receiver's input terminal. *RSL* is frequently expressed in decibels (dB) relative to 1 mW, i.e., above or below 0 dBm.

receiver (1) One of the three essential components of a communications system. (The other two are a transmitter and a communications channel.) It is a device employed to translate an incoming signal from the communications channel to a format suitable for a user's recording device, action, or for further transmission. (2) In telephony, the earpiece section of a telephone handset. (3) In telephone switching systems, that part of an automatic switching system that receives signals from a calling device (or other source) for interpretation or other action.

receiver attack time delay The time interval from the instant a step RF signal, at a level equal to the receiver threshold of sensitivity, is applied to the receiver's input terminals to the instant the receiver's output amplitude reaches 90% of its steady-state value, including the time required to break squelch if a squelch circuit is present.

receiver off-hook (ROH) A tone sent by the central office (CO) to the subscriber's equipment in an abnormal off-hook condition. *ROH* is sent if the subscriber's line has been in the off-hook state for greater than some predetermined time without any dialing. The predetermined time varies but is typically about 1 minute.

The *ROH* tone is intended to inform the subscriber that the telephone needs to be "hung-up," even if the subscriber is in another room. Hence, the *ROH* tone is very loud. *ROH* is also called a *howler tone*.

receiver release time delay The time interval from the instant of removal of radio frequency energy at the receiver's input until the instant the receiver's output is squelched.

receiving objective loudness rating (ROLR) A rating of telephone receivers (earpieces). The units of the numeric value of *ROLR* have no physical meaning but are expressed in terms of dB. A typical receiver will have *ROLRs* in the range of 40 to 55 dB.

$$ROLR = -20 \cdot \log \left(\frac{S_E}{0.5 \cdot V_w} \right)$$

where:

S_E is the sound pressure level at the artificial ear reference point (in pascals), and

V_w is the open circuit voltage of the signal source (in mV).

reciprocal (1) In mathematics, the new value created by dividing 1 by the old value. For example, 2 is the reciprocal of 0.5 and $\frac{1}{2}$ is the reciprocal of $\frac{1}{2}$. (2) Indicates interchangeable, mutual, or complementary entities (real or imagined). Items exchanged or owed mutually.

reciprocal agreement An agreement between two parties to exchange or mutually share resources.

recognized private operation agency (RPOA) The ITU-T term for a packet interexchange carrier.

reconfiguration The process of physically altering the location or functionality of network or system elements. Automatic configuration describes the way sophisticated networks can readjust themselves in the event of a link or device failing, enabling the network to continue operation.