Glossary

A/J	Anti-jamming. Any feature of a communications or radar system designed to increase its ability to function properly in the presence of jamming.
AMPS	Advanced Mobile phone system. An analog cellular telephone service available over much of North America.
API	Application programming interface. The set of function calls (procedure calls) via which a computer program accesses a given set of services. An API is specific to a given language, e.g., C, C++, or FORTRAN 77.
ARQ	Automatic Repeat reQuest. A type of error control in which packets that are not acknowledged by the receiver are re-transmitted after a specified time delay. Hybrid ARQ refers to a combination of ARQ with FEC.
ASIC	Application-specific integrated circuit. (As opposed to a general-purpose integrated circuit, such as a memory chip or CPU chip).
ATM	Asynchronous transfer mode. A communications network protocol which is essentially packet switching at the lowest level, but is capable of supporting not only connectionless traffic but also (like circuit switched networks) real-time connection-oriented traffic such as interactive voice and real-time video.
AWGN	Additive white Gaussian noise.
bandwidth	The strict definition of *bandwidth* is the width in Hertz of the frequency spectrum occupied by a given signal, or by some fraction of the signal power (e.g., 99 percent). In common parlance, *bandwidth* has come to be equated with *data rate*, measured in bits per second (bps).
BER	Bit error rate. The long-term average fraction of bits received in error. Same as bit error probability.
CDMA	Code division multiple access. A type of spread spectrum multiple access in which simultaneous transmissions avoid (or minimize) mutual interference by using different spreading codes. CDMA can be implemented with either DS SS or FH SS (commercial CDMA uses DS SS).
COTS	Commercial off-the-shelf. Denotes standard commercial components and equipment, as opposed to items designed specifically for the military market.
DAMA	Demand assignment multiple access. In satellite systems and in other networks with repeaters, a class of schemes for sharing satellite channels among a population of users.
DS SS	Direct-sequence spread spectrum.
ECM	Electronic counter measures.
EIRP	Effective (or equivalent) isotropic radiated power. EIRP is a measure of radiated power density, and is equal to the product of actual radiated power and antenna gain. Units are watts.
EMC	Electromagnetic compatibility. The ability of two or more equipments to operate together (under specified conditions) without causing unacceptable interference to each other.

ESM	Electronic support measures. ESM refers to systems that perform direction finding or that are used for measuring/characterizing the spectral or time-domain characteristics of RF emitters.
FDMA	Frequency division multiple access. A basic waveform type in which a band of frequencies is divided into smaller nonoverlapping sub-bands, or channels. A given transmission uses only one of these channels.
FEC	Forward error control. Error control that, unlike pure ARQ, does not involve retransmissions. FEC detection and/or correction depends on structured redundancy only. The FEC code rate equals the number of information symbols (before encoding) divided by the number of channel symbols (after encoding).
FH SS	Frequency-hop spread spectrum. A given transmission uses a pseudo-random sequence of transmit carrier frequencies.
FIR	Finite impulse response. A type of linear filter. Output at time t is weighted average of inputs over $[t - t, t]$.
FLOT	Forward line of troops (formerly, forward edge of battle area, or FEBA).
FPGA	Field programmable gate array.
GPS	The global positioning system is a constellation of 24 satellites that provides navigational information to military and civilian users. Signals from any four satellites enable a user to determine three-space position and time. For users on the surface of the earth, three GPS satellites must be visible. GPS provides two sets of signals; the less accurate *standard positioning service* is available to everyone.
HCTR	High capacity trunk radio.
IETF	Internet engineering task force. A standards-setting body that has de facto control over Internet-related standards, although no legal standing.
IP	The Internet protocol. IP is the network layer protocol in the TCP/UDP/IP Internet protocol suite. Both TCP and UDP depend on IP.
ISDN	Integrated service digital network, a group of digital services providing point-to-point circuit switched connections for voice, data, facsimile, and video at rates ranging from 64 kbps to 1.544 Mbps.
ISO	The International Standards Organization. One of many international standard-setting bodies.
JSI	Jammer side information or jammer status information. JSI is symbol-by-symbol information about the presence or absence of jamming, and can aid the FEC decoder.
JTIDS	The Joint Tactical Information Distribution System, a military radio for broadcast messaging and voice.
LAN	Local area network.
LEO	Low Earth orbit. LEO designates the regime of altitudes between 175 and 2,000 km. Most circular orbits at altitudes between about 2,000 and 10,000 km (1,250 to 6,250 miles) are impractical because the trapped radiation in the inner Van Allen belt causes damage to unshielded electronics. Because of atmospheric drag, altitudes below about 175 km (109 miles) decay too rapidly to be practical.

LPD	Low probability of detection. LPD is often used to refer to both signal detection and direction finding ("localization"), since in practice these are closely-related activities.
MEO	Medium Earth orbit. MEO designates the regime of altitudes above 10,000 km but below geostationary altitude (35,860 km). See LEO.
MIPS	Millions of (integer) instructions per second. A measure of computer performance.
MSE	Mobile subscriber equipment. See also MSRT.
MSRT	Mobile subscriber radio telephone. The AN/VRC-97 mobile subscriber radio telephone (MSRT) is the MSE mobile subscriber terminal.
OSI model	Open systems interconnection model. An ISO standard conceptual model for communications networks that divides functions into 7 layers. In existing networks, functions are not always organized according to the OSI model.
PCS	Personal communications services. A class of digital wireless systems that provide two-way voice in combination with at least one other nonvoice service such as text messaging.
PEM	Plastic encapsulated microcircuit.
PSD	Power spectral density. Watts/Hz as a function of frequency.
PSN	The public switched network. The interconnected network of switches, trunks, digital cross-connect systems, and customer premises equipment that supports leased telephone lines, analog switched services (e.g., telephony and facsimile), and digital switched services (e.g., frame relay and ATM).
QAM	Quadrature amplitude modulation. A modulation in which each symbol represents b bits, and is transmitted as a weighted combination of sine and cosine components at the carrier frequency. Each of the 2^b possible symbols is represented by a different pair of (real-valued) weights.
QoS	Quality of service for connection-oriented services, measured in terms of such parameters as throughput, delay, and delay jitter.
SFH	Slow frequency hopping. See FH SS.
SNR	Signal-to-noise ratio (signal power divided by noise power). SNR is a useful measure of signal quality when any interfering signals can be collectively treated as additive white Gaussian noise over the frequency band of interest.
TCP	Transmission control protocol. TCP is the connection-oriented transport layer protocol in the TCP/UDP/IP Internet protocol suite. See UDP.
TDMA	Time division multiple access. A basic multiaccess waveform type in which time is divided into slots, typically of fixed length; a given transmission must fall entirely within a single slot.
UAV	Unmanned aerial vehicle.
UDP	User datagram protocol. UDP is the connectionless transport layer protocol in the TCP/UDP/IP Internet protocol suite. Unlike TCP, UDP performs "best effort" delivery. UDP does not generate acknowledgments, does not retransmit missing packets, and does not guarantee in-order delivery.
VLSI	Very large scale integration.
WLAN	Wireless local area network.