Acronyms

Acronyms	Definitions
APRS	▪ **A**utomatic **P**acket **R**eporting **S**ystem
BER	▪ **B**it **E**rror **R**ate (when applied to digital communications systems)
CQ	▪ Calling any station ▪ Alternative: Say your call sign to indicate that you are listening on a repeater.
CTCSS	▪ Describes sub audible tone to open squelch ▪ Hear but not access if not set properly ▪ Tone access could be CTCSS, DCS or Tone Burst
CW	▪ Morse Code. ▪ Permitted in restricted sub-bands 50.0 to 50.1 and 144.0 to 144.1 ▪ May be used for station identification when transmitting phone signals ▪ Use with horizontal polarization for long-distance weak signal on VHF and UHF ▪ Use 500 Hz filter. Product Detector ▪ Oscillator block 1 in T4 ▪ Narrowest bandwidth ▪ Maximum bandwidth 150 Hz ▪ Send with Straight Key, Electronic Keyer, Computer Keyboard
DCS	▪ **D**igitally **C**ontrolled **S**quelch ▪ Receiver may require a DCS Tone sequence for access.
FET	**F**ield **E**ffect **T**ransistor, has a gate electrode
HF	▪ 3-30 MHz "**H**igh **F**requency" ▪ PL-259 Connectors are commonly used
Hz	Hertz, measure of frequency, 1 Hz = 1 one cycle per second
ITU	▪ UN agency for information & communication tech issues ▪ **I**nternational **T**elecommunications **U**nion ▪ North American stations are in ITU Region 2 ▪ 443.350 MHz is authorized in ITU Region 2 ▪ Prohibited exchange if country notifies ITU that it objects
MHz	▪ Mega Hertz = frequency 1 million Hz = 1 million cycles per second
NTSC	▪ Analog fast scan color TV signal
PSK	▪ Phase Shift Keying ▪ Example of digital communications method (with Packet and MFSK) ▪ A low-rate data transmission mode
QRM	Receiving interference from other stations
QSY	Changing frequency

RF	▪ Radio Frequency ▪ Radio frequency signals of all types ▪ Flat strap is best for RF grounding ▪ Ferrite choke to reduce RF current audio cable shield ▪ Coaxial cable carries RF signals between radio and antenna ▪ Speech signal and RF carrier combined by a Modulator ▪ RF power amplifier increases low-power output from a handheld transceiver ▪ RF preamplifier installed between the antenna and receiver ▪ RF filter at the telephone – logical first step to cure a radio frequency interference problem ▪ RF feedback symptom: garbled, distorted, or unintelligible transmissions ▪ Maximum power level above 30MHz before RF exposure evaluation is required is 50 watts PEP at the antenna ▪ RF exposure factors: Frequency & power, distance, radiation pattern (all these choices are correct) ▪ Human body absorbs more RF energy at some frequencies than others ▪ Determine that your station complies with RF exposure regulations: FCC OET Bulletin 65, calculation, field strength (all these choices are correct) ▪ Accidently touch your antenna = painful RF burn ▪ Prevent exposure to RF radiation: relocate antennas ▪ Stay in compliance with RF safety regulations: re-evaluating the station whenever an item of equipment is changed ▪ Safe RF radiation exposure levels: Duty cycle affects the average exposure of people to radiation ▪ Duty Cycle for RF exposure = ratio of "on" time to "off" time ▪ Muting of receiver audio controlled solely by presence or absence of RF signal =Carrier squelch
RIT	▪ Receiver Incremental Tuning ▪ Use if voice pitch of a single-sideband signal too high or too low
SSB	▪ Single Side Band ▪ Appropriate receive filter = 2400 Hz ▪ Antenna polarization used for long0-distance weak-signal CW and SSB contacts on VHF and UHF = Horizontal ▪ Product detector detects CW and SSB signals ▪ Device takes the output of a low-powered 28 MHz SSB and produces a 222 MHz output = Transverter ▪ Type of voice modulation most often used for long-distance or weak signal contacts on VHF and UHF ▪ Primary advantage of single sideband over FM for voice = narrower bandwidth ▪ Approximate bandwidth of a single sideband voice signal = 3 kHz
SWR	▪ Standing Wave Ratio ▪ Measures how well a load is matched to transmission line ▪ Perfect is 1 to 1 ▪ Solid-state transmitters begin to reduce transmitter power at 2 to 1 ▪ 4:1 reading = An impedance mismatch ▪ Instrument other than an SWR meter: Direction wattmeter ▪ low SWR that uses coaxial cable feedline: important to allow the efficient transfer of power and reduce losses

	▪ Erratic changes in SWR readings: loose connection in an antenna or feedline
UHF	▪ 300-3000 MHz “Ultra High Frequency” ▪ 70cm (440MHz) band is UHF. ▪ Shorter wavelength penetrates buildings. ▪ Not reflected by the ionosphere ▪ FM is most used type of modulation ▪ Air-insulated hard line is lowest loss
VHF	▪ 30-300 MHz “Very High Frequency” ▪ 1.25m (220MHz) 2m (144MHz) and 6m (50MHz) bands ▪ Air-insulated hard line is lowest loss