

Amateur Radio

1. History of Radio
 - a. James Clerk Maxwell
 - i. theorized electromagnetism in 1873*
 - b. Guglielmo Marconi
 - i. communicated across the Atlantic in 1901*
 - c. Radio Act of 1912
 - i. Required amateurs to be licensed/Restricted to 200 meters*
 - d. Hiram Percy Maxim
 - i. Founded the American Radio Relay League (ARRL) in 1914*
 - e. Transatlantic transmission/receiving tests began in 1921*
 - f. First contact via the moon took place on 1296Mhz in 1960*
 - g. Modern Amateur Radio
 - i. Various modes of communication
 1. Continuous Wave (CW)/Morse Code
 2. Single Side Band (SSB)
 3. Frequency Modulation (FM)
 - ii. Digital Modes of communication
 1. PSK31
 2. DSTAR
 3. DMR
 - iii. Software Defined Radio
2. Licensing
 - a. Classes of License & Privileges of Each Class
 - i. Technician
 - ii. General
 - iii. Extra
 - b. How do you get a license
3. Repeaters
 - a. What are they?
 - b. Uses
4. DSTAR
 - a. What is it
 - b. Who created it
 - c. How does it work
 - i. Callsign Routing
 - ii. Reflectors
 - iii. Hotspots vs Repeaters
 - d. Uses
5. DMR
 - a. What is it
 - b. Who created it
 - c. How does it work
 - d. Uses
6. Multi-Mode Digital Repeaters

* = American Radio Relay League, Ham Radio History - <http://www.arrl.org/ham-radio-history>