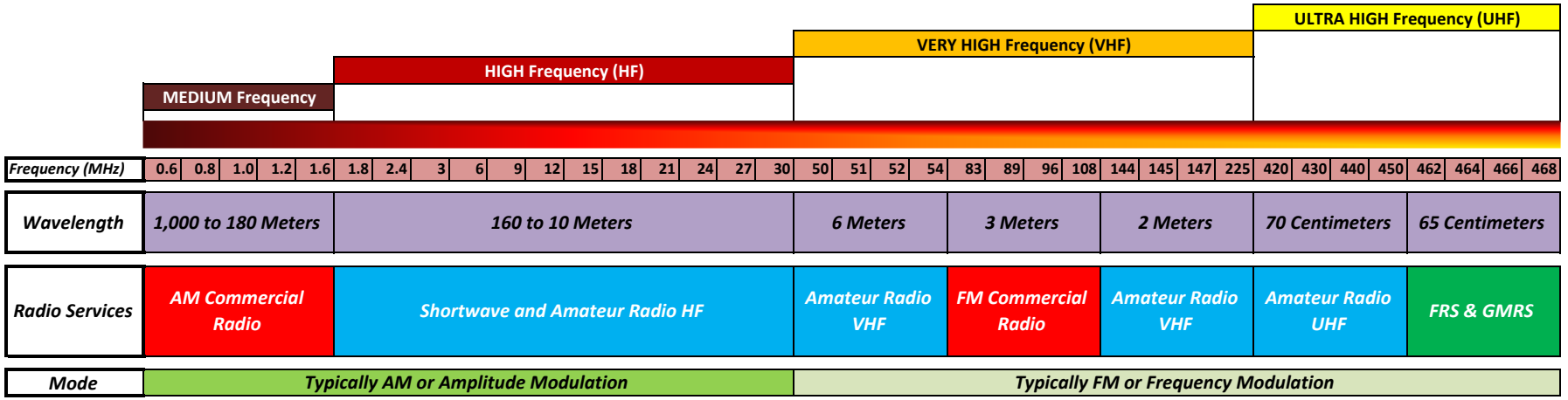
RADIO SPECTRUM DESIGNATION AND ALLOCATION IN THE UNITED STATES



Notes:

1. ***Frequency and wavelength are inversely related, i.e. as frequency increases, wavelength decreases.***

2. ***In the early days of radio, low and medium frequencies were favored by commercial broadcasters; Hams were given the "High Frequencies" (at the time) with the "short wave lengths." Now, technology has made the even shorter wavelengths very desirable for the communications industry including cell phone providers who typically operate at 800 + MHz.***

3. ***As frequency increases, the ability of the associated wave to pass through solid objects decreases. At UHF frequencies and higher, radio signals tend to be best received when there is a clear "line of sight" between the transmitter and the receiver. And at even higher frequencies, transmitter and receiver MUST be within that "line of sight"--these waves will not penetrate solid objects and can even be hindered by fog/smog or fine particles in the atmosphere.***

4. ***"Modulation" is the process of changing a radio wave so that it carries sound information or audio. Modulating a radio wave can be done in two ways: either by modulating the "amplitude" (distance from the highest point of the wave to the lowest, AM radio) or the "frequency" of the wave, FM radio.***