

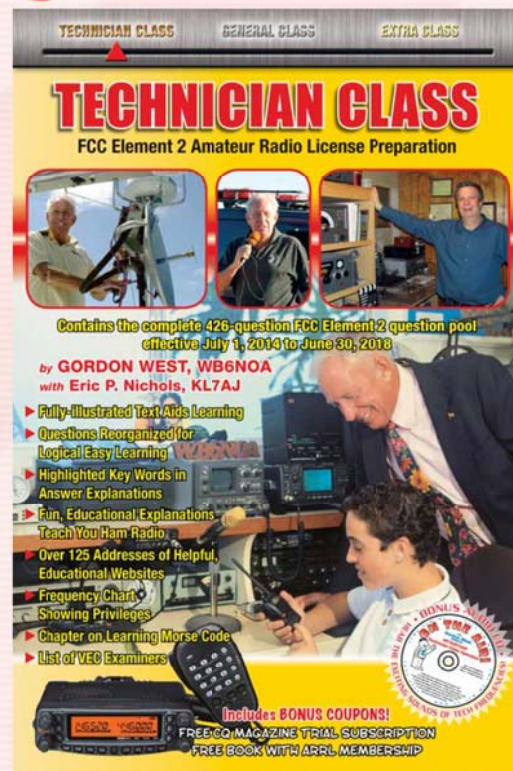
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Technician Class Privileges



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Valid July 1, 2014
Through
June 30, 2018

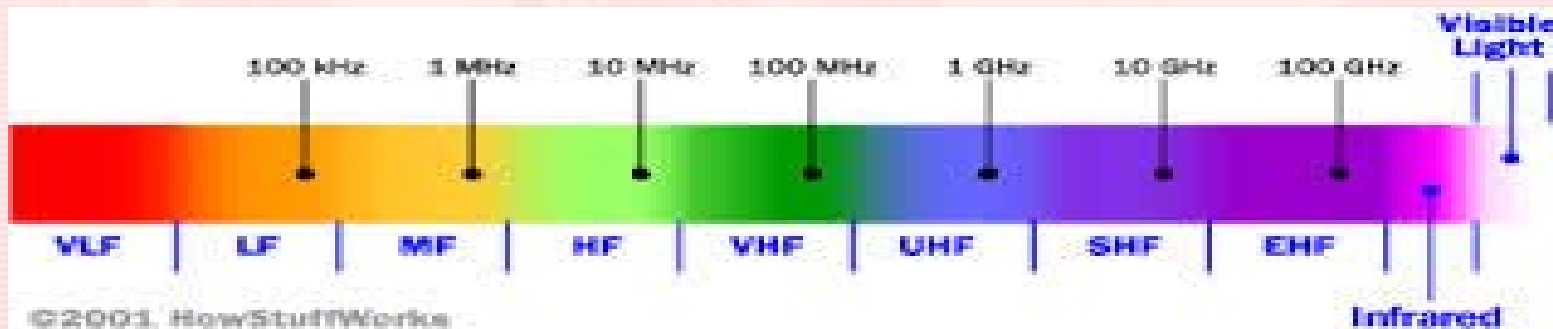


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Technical Class Privileges

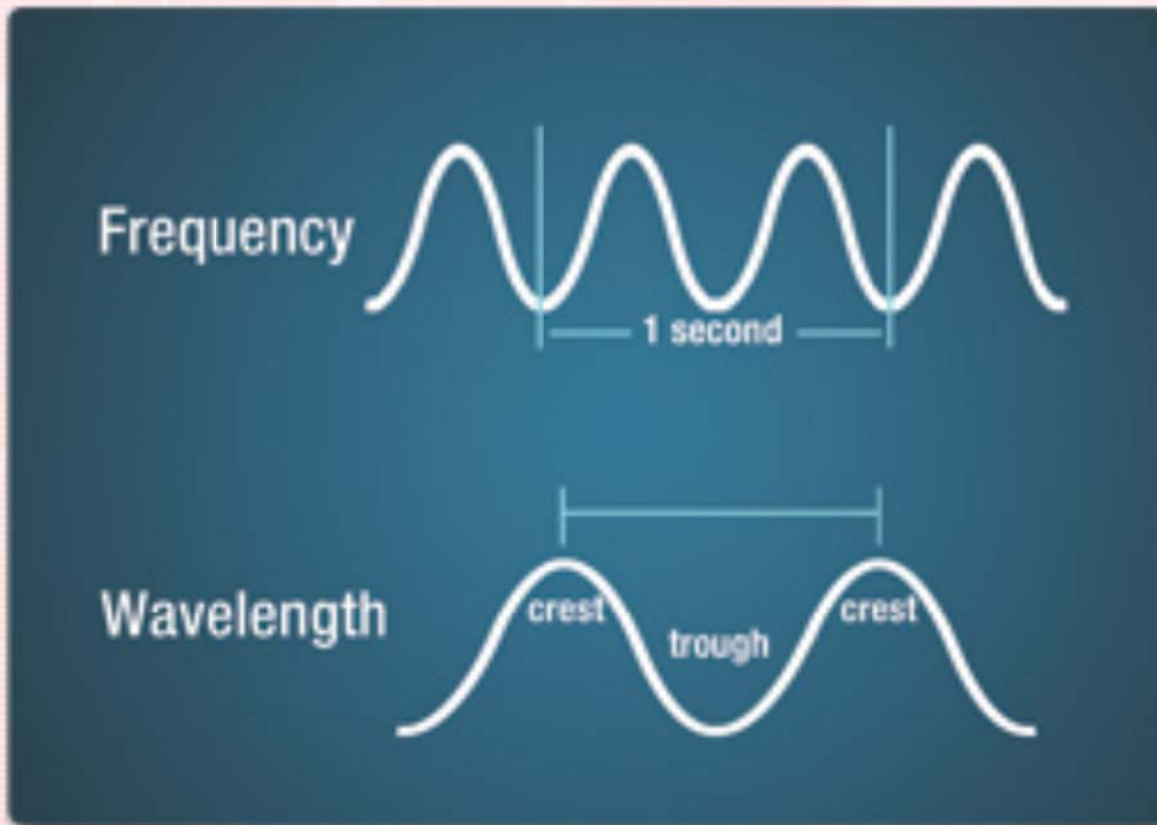
- Spectrum

- All radio transmission are at a specific frequency,
 - WAKR is at 1590 kHz
 - W8PVP is at 147.270 MHz
- FCC regulates electro-magnetic waves (radio waves) from 30 kHz to 300 GHz.



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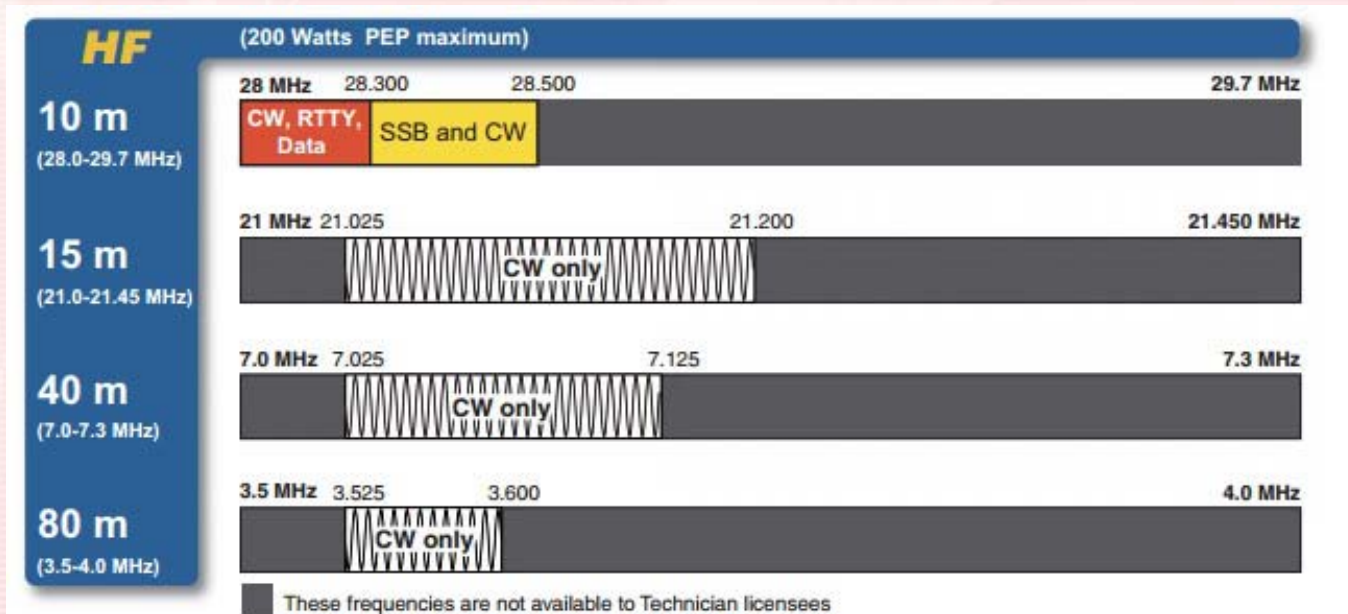
- Wavelength and Frequency



$$\begin{aligned} 2 \text{ Hz} &= \\ 2/1,000,000 \text{ MHz} &= \\ &= 0.000\ 002 \text{ MHz} \end{aligned}$$

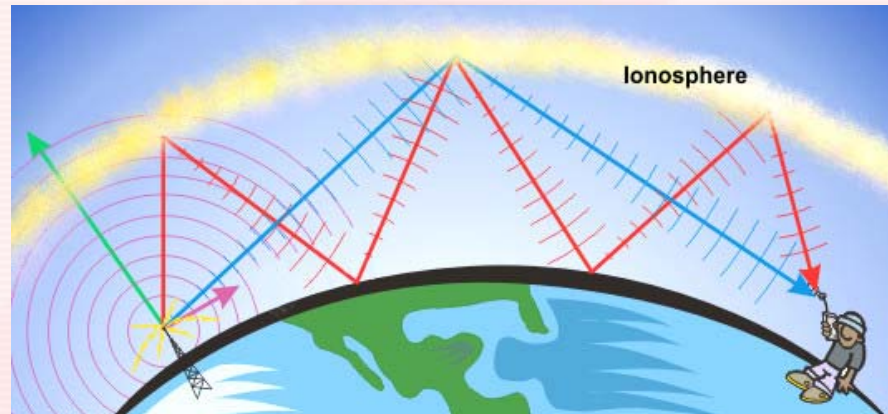
$$\begin{aligned} \lambda &= 300/f \text{ in MHz} \\ &= 300/0.000002 \\ &= 150,000,000 \\ &\text{ meters} \\ &= 150,000 \text{ km} \\ &= 93,205 \text{ miles} \\ &= 3 \frac{3}{4} \text{ around Earth} \end{aligned}$$

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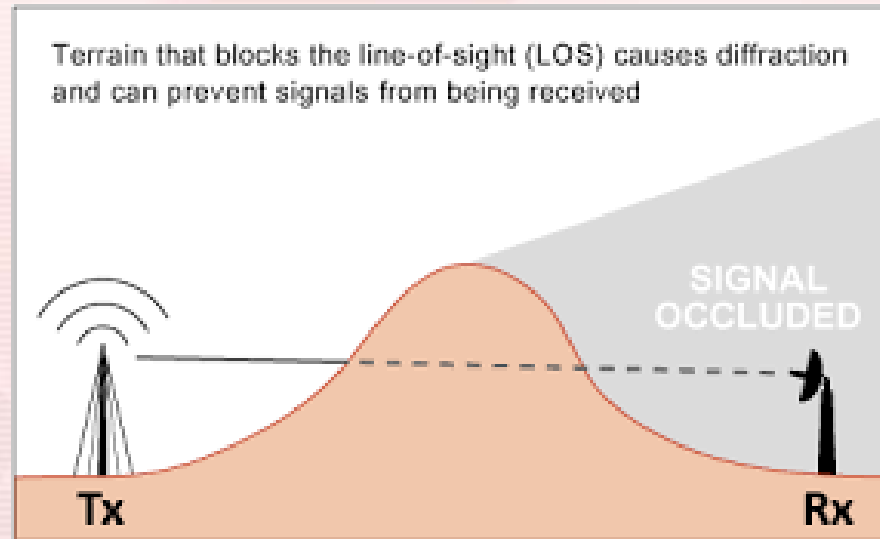
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- Magic Band 50 to 54 MHz (6 meters)
- Supports skywaves which can go around the world
- Modes for Techs
 - CW and other digital modes
 - Amplitude Modulation (AM)
 - Single Sideband
 - Frequency Modulation (FM)



Technical Class Privileges

- Very High Frequency or VHF
- 30 MHz to 300 MHz
- 6 m, 2 m and 1.25 m bands
- 2 m and 1.25 m are line of sight
 - Many 2 meter repeaters
 - FM
 - Satellite & EME
 - CW and other digital modes



Technical Class Privileges

- Ultra High Frequencies or UHF
- 70 cm (440 MHz), 33 cm (900 MHz), 23 cm (1.2 GHz) and 13 cm (2.4 GHz)

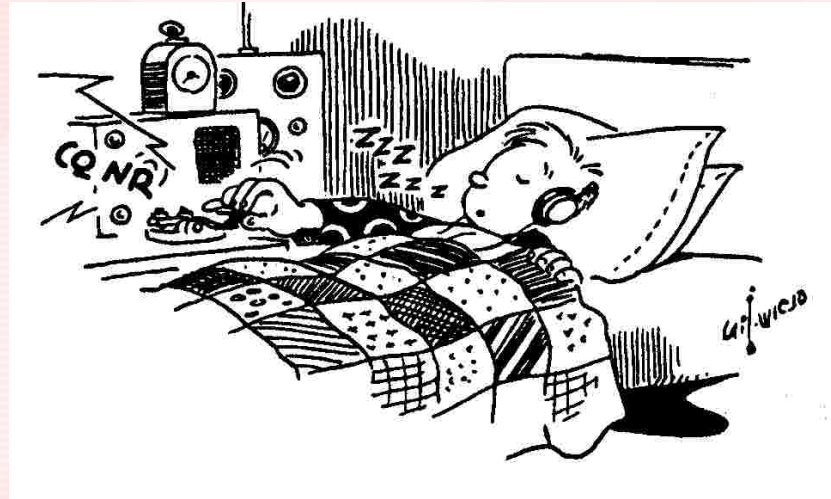


Technical Class Privileges

- Super High Frequency or SHF
- 9 cm, 5 cm, 3 cm, and 1.2 cm
- Extremely High Frequency or EHF
- 6mm, 4 mm, 2.5 mm, 2 mm and 1 mm

Technical Class Privileges

- High Frequency or HF
- 80 m, 40 m, 15 m is CW only for techs
- 10 m is cw and phone
- General class license is HF class



Technical Class Privileges

- Play enclosed audio CD
- Six Track of different modes of communications
- Three different decades of frequencies from HF to VHF to UHF
- Not Technician Class Audio Course

Technical Class Privileges

- Learn more about ham radio
 - Magazines like QST and CQ
 - Video Blogs like Ham Nation and Amateur Logic
 - Books from ARRL and CQ

Technical Class Privileges

- An important word about shared frequencies
 - 1 $\frac{1}{4}$ m is shared with other services with amateur as secondary
 - 33 cm, 23 cm, 5 cm, 3 cm and 3 cm plus is shared with radiolocation with amateur as secondary
 - If amateur is interfering, then amateur must cease transmission

Any Questions???

