Lesson 4A ver 2

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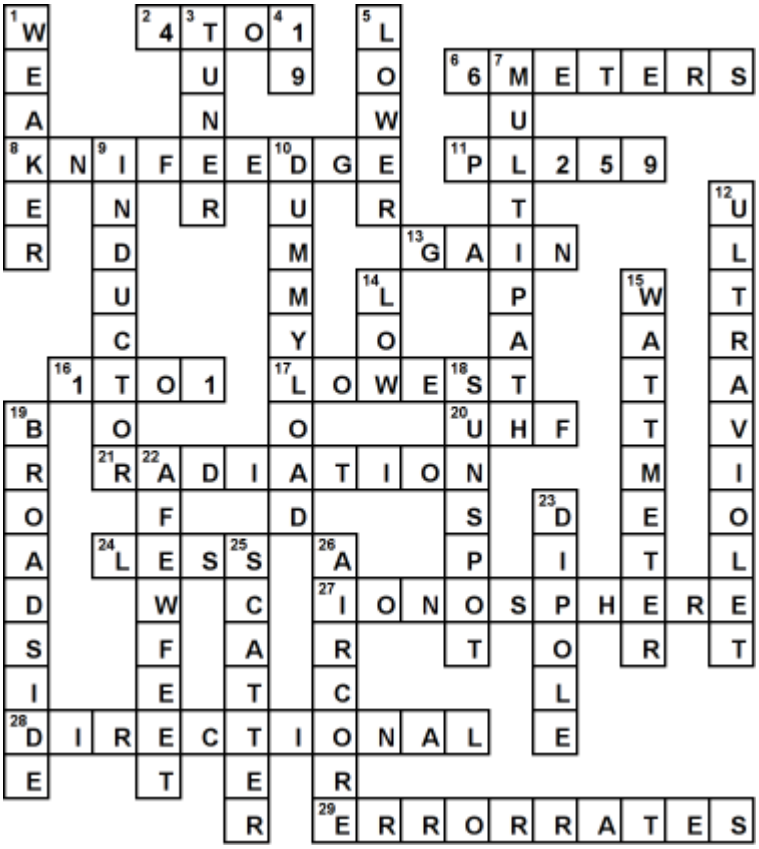

Across

2. _ __ _ SWR means an impedance mismatch (1,2,1)

6. What band is best suited to communicating via meteor scatter (1,6)

8. ____-____ signals are partially refracted around solid objects exhibiting sharp edges (5-4)

11. The coax connector commonly used at HF frequencies (2-3)

13. ____ of an antenna is the increase in signal strength in a specified direction when compared to a reference antenna

16. _ __ _ is the SWR meter reading for a perfect impedance match between the antenna and the feedline (1,2,1)

17. Air-insulated hard line has the _____ loss at VHF and UHF

20. ___ signals rarely heard from stations outside your local coverage area because they are usually not reflected by the ionosphere

21. A VHF or UHF mobile antenna mounted in the center of the vehicle roof provides the most uniform _____ pattern?

24. An electrical difference between the smaller RG-58 and larger RG-8 coaxial cable is RG-8 cable has ____ loss at a given frequency

27. The _____ enables the propagation of radio signals around the world

28. The quad, Yagi, and dish are _____ antennas

29. _____ _____ are likely to increase if VHF or UHF data signals propagate over multiple paths (5,5)

Down

1. Signals from a "rubber duck" antenna inside your car be _____ than when it is outside

3. An antenna _____ matches the antenna system impedance to the transceiver's output impedance

4. The approximate length, in inches, of a quarter-wavelength vertical antenna for 146 MHz

5. A 5/8 wavelength antenna for VHF or UHF mobile service offers a ____ angle of radiation and more gain than a 1/4 wavelength antenna

7. Signal reflections may cause ____-____ distortion (5-4)

9. An _____ in the radiating portion of the antenna to make it electrically longer is a type of antenna loading

10. A ____ ____ consists of a non-inductive resistor and a heat sink (5,4)

12. _____ light can damage the jacket and allow water to enter coaxial cable

14. It important to have a ___ SWR in an antenna system to allow efficient power transfer and reduce losses

15. A directional _____ could replace a SWR meter to measure feedline and antenna matching

18. Six or ten meters may provide long distance communications during the peak of the _____ cycle

19. The strongest radiation from a half-wave dipole is _____ to the antenna

22. If your stations' 2 meter signals were strong, but now they are weak, try moving _ __ ____ (1,3,4)

23. A _____ antenna with the conductor parallel to the Earth's surface is horizontally polarized

25. Tropospheric _____ is responsible for over-the-horizon VHF and UHF communications to ranges of 300 miles on a regular basis

26. ___ ____ coaxial cable requires special techniques to prevent water absorption when compared to foam or solid dielectric types (3,4)