ENHANCED OPERATING

DANIEL KL7WM

Ultra portable 1. What Frequency? 2. HF 3. VHF / UHF 4. Power 1. Batteries 2. Solar 2. S.O.T.A.

A. Hiking 1 in City? 2 Mountains? **B** Biking 1 VHF / UHF 2 HF Antenna size and power supply C. Boating, 1 Marine VHF 2 HF

LOADED ANTENNAS

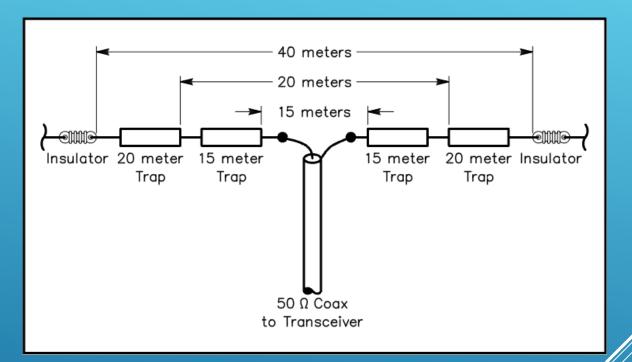
"Rubber duck" antennas are loaded antennas where the antenna is wound into a coil to shorten it physically. This is not an efficient radiator and narrows the bandwidth but does allow portable operation. This is particularly important on the HF bands.



The antennas on the left are called "screwdrivers" and use a motor and wiper inside the coil to adjust the amount of loading based on frequency. The center antenna has the whip attached with a "capacitance hat" to provide capacitance to counteract inductance in the load coil and improve performance.

ANTENNA TRAPS

Dipole, vertical and yagi antennas can contain tuned traps in their driven elements. The traps block (or trap) energy of a given frequency making a physically longer appear shorter electrically.



In the dipole shown, any energy on the 15m band will stop at the 15m trap and the antenna will only appear to be the width of a 15m antenna. Similarly, 20m signals will stop at the 20m traps and only see the antenna hetween the traps. Only 40m signals will pass along the entire length.

COMMUNICATIONS HEADSET

HiFi headphones are designed to cover the entire range of human hearing (20-20,000Hz) equally well. Communications headphones are only designed to reproduce the 300-3000Hz voice frequencies which helps reduce nonvoice noise that might come out of the receiver. This model includes a boom microphone that minimizes background noise and insures consistent



Push-to-Talk (PTT) is via a foot switch on the floor to leave the operators hands free.

Radio Practices 2014



SUSAN J. HELMS, KC7NHZ FLIGHT ENGINEER - ISS





STACK TOGETHER POLES



NEVER ENOUGH RADIOS



REPEATER SITE



Emergency Setup and Repairs

- 1. Will be individual
 - A Medicine
 - B Special food, snacks
 - C Reading, games, relaxation
 - D Plastic bags, zip locks
- 2. How to procure inexpensively
 - A Local grocery store, dollar store
 - **B** Harbor Freight
 - C Internet
- 3. Portability

"On the Air" During an Emergency

1. As an individual Cheap radio VHF / UHF 2. Part of a team A Join a team and participate B Local, neighborhood C Regional, Red Cross, Salvation Army

3. Supporting a served agency or organization

- A Volunteers, Do it Their way
- 4. As a Net Control Station
 - A First on the air that has a clear signal
 - B Most experienced
 - C Team may have a assigned NCS
- 5. Passing messages
 - A ARRL Message form
 - B Agency's forms and mono
 - C Accurate
 - D How has the authority?

QUESTIONS ?

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