

K4AFN

Portable Dual Band Antenna

This is my portable mast and antennas as used on a recent ARES training exercise. Mast sections are surplus camouflage poles, bag is a camo pole bag also surplus. Stakes, hammer, guy rings, guys, bungee cords are for installation. Gray pipe is used to mount the antennas. Antennas are a Diamond X-50NA Dual Band and a home made copper cactus J-Pole. The only tools needed are the hammer and a crescent wrench. Everything except the antennas go in the bag. Antennas need some careful handling. Fiberglass camo poles are also available. I use this same mast for HF dipole antennas. I attach a rope and pulley at the top and can quick change the dipoles without taking down the mast.



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This is my antenna setup at the Granite Peak aid station on the Old Pueblo 50 endurance run (Mar 7, 2009).

The antenna is directly behind my station tied to a tree. I used bungee cords to support the mast, eliminating the need for guy wires. In this photo I have two sections of camo poles in the mast. I later added two more sections to get my antenna up to about 18' for improved performance. I was working through a repeater 51.4 miles away. To add mast sections, I just add a section at the bottom and push the antenna up. Reverse procedure to take it down. It got pretty windy later in the day but the antenna held firm.



The photo to the left, gives you some more details of how the mast looks assembled. In this photo I am using a Diamond X-50NA dual band antenna. I choose this antenna mostly for the size. It will fit in my jeep without any disassembly and it does have a little gain. The antenna has three very short radials.



Our repeater is about 35 miles beyond "The biscuit" (a little to the right). If you want a better view of "The biscuit" rent the movie "Red River" starring John Wayne and Montgomery Clift. The cattle drive in the movie took place by driving a herd of cows around and around those mountains. For this event I was communicating with our command vehicle down in a hole behind the mountain to the right.



K4AFN Portable Battery Box

This is the battery pack I used for this exercise. The battery is a Wal-Mart Size 24 Deep Cycle battery in a size 27 box. Using this size box gives you a little storage space inside for cables etc. Be careful what you put in there and how long it stays there because there's acid in that battery!

I operated my Yaesu FT-7800 mobile transceiver for 5 hours at medium power using this battery. The battery still was at 90% capacity at the end of the day.



**Cochise County
Mobile Command Unit
(Kentucky Camp)**

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K4AFN's Mobile Unit



Arizona Trail