Mardy,
You've expressed interest in my antenna project. I am happy with what I've achieved and I'm a novice when it comes to antenna construction and theory. After doing a lot of reading (ARRL Handbook, ARRL Antenna Handbook) and wanting the most number of bands for the least cost, I settled on something called a Fan Dipole. I started off with a 80m and 40m dipole I purchased at a flea market and added a bit of wire for 20m.

It is a 3 element dipole currently has elements tuned for sweet spots at 3800kc, 7150kc and 14150kc. The antenna is fed with LMR400 and is attached at the feedpoint with a 1:1 balun.

The construction is based on two articles found at http://www.hamuniverse.com/multidipole.html and http://www.audiosystemsgroup.com/LimitedSpaceAntennas.pdf along withan older manual written by W9INN (sk). The last was written for his trapped multiband fan dipole, showed an interesting way to attach spacers to elements. In the end I took a bit of this and a bit of that, combined it with tenacity and am on the air with it.

The basic construction is 14g stranded copper with ceramic insulator ends. Elements are made of 14g stranded wire and cut roughly using the 468/f formula + 2' then adjusted as required with my antenna analyzer. Spacers are 3/16" fibreglas rods cut and drilled as required. 14g solid copper wire holds the spacers to the elements where required, a simple, strong and effective technique gleaned from W9INN. The 80 and 20m elements have a short stub hanging down used as a tuning stub.

The white backer board seen in the photos is an Ikea plastic cutting board about 3/8" thick. Feedpoint has the elements separated by a few inches thanks to use of UV resistant zip ties. Endpoints all have ceramic eggs then are tied off to the spacers. The 40m element has a rope at each end for added mechanical strength and to stop it flapping in the wind. Still to be done in a couple of weeks is to solder all the endpoints up and ensure that the ropes are still securely anchored as this will allow the wire to stretch out.

The design is flexible enough that you can use simple items like ribbon cable, 300ohm twinlead or just about anything else as the radiator. The only thing to remember is that the closer the elements are to each other, the more interaction and trimming heartache you will have.

73 de VE6LK/3 VE3LKV
...Vince