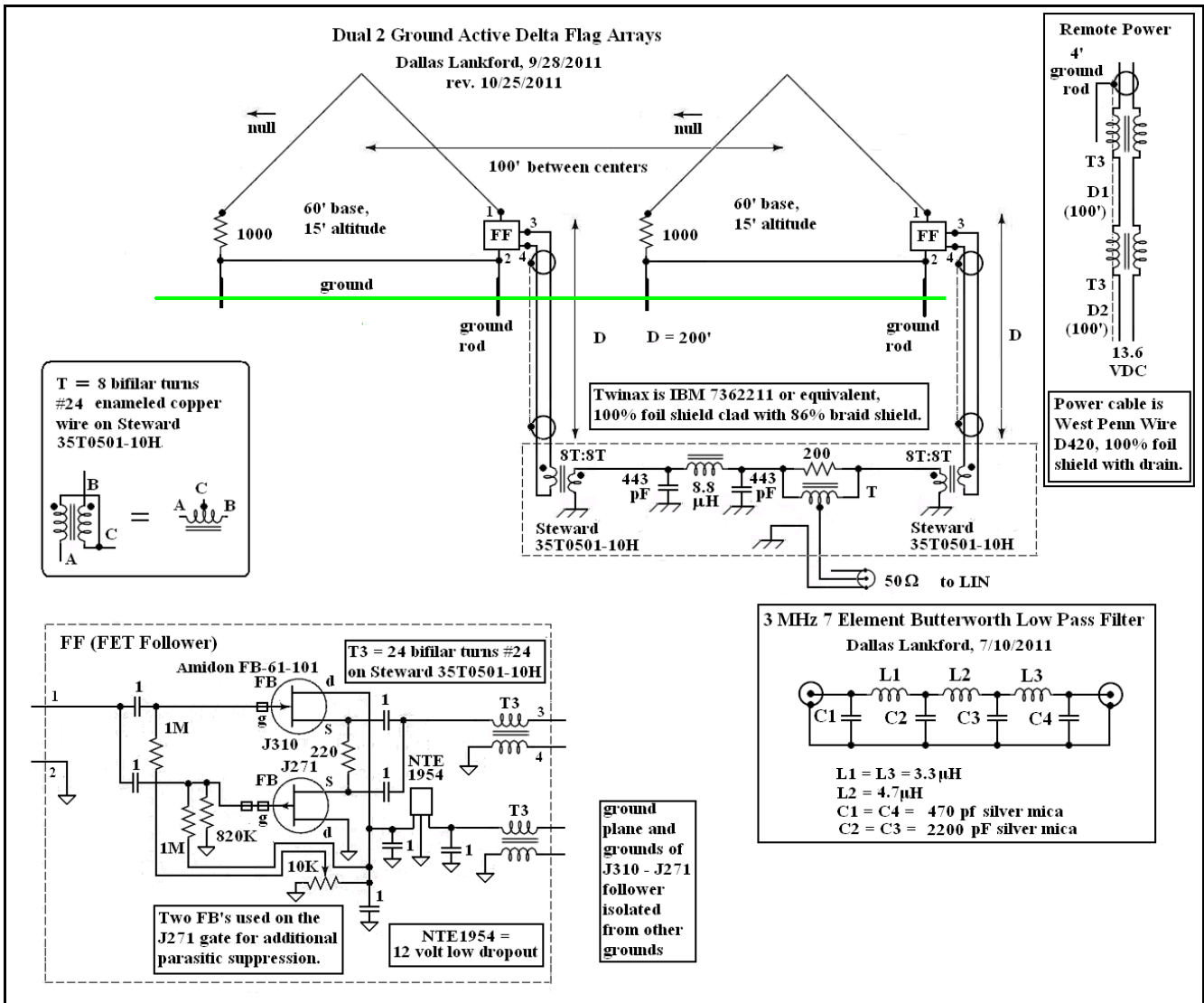
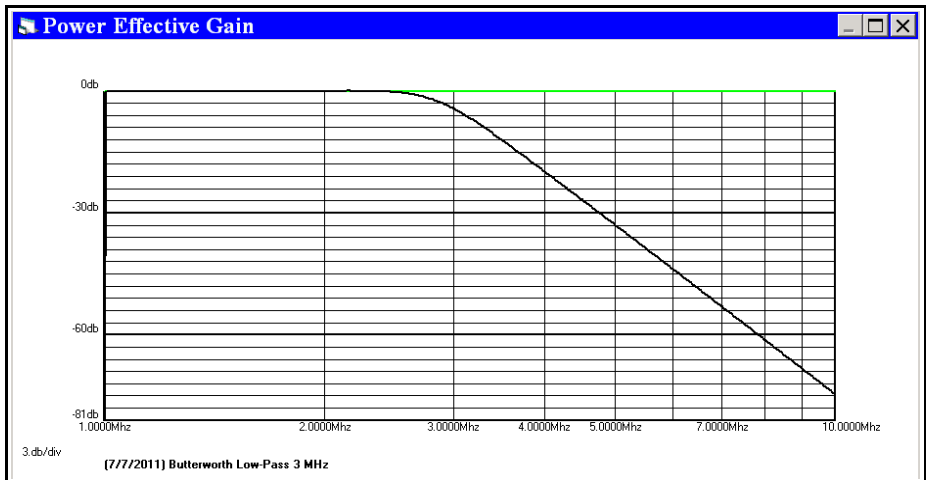


Dual 2 Ground Active Delta Flag MW Arrays

Dallas Lankford, 9/24/2011, rev. 10/26/2011



The dual active delta flag array is a dual delta flag array which is activated by high performance FET followers. The FET followers basically transform the open source voltages of the flag elements directly to 50 ohm outputs. No antenna transformers are used, so there is no reduction of signal levels. This is equivalent to attaching 15 dB gain very low noise figure amplifiers directly to the flag elements. In other words, low signal level output flag antennas and flag arrays are converted to high signal level output flag antennas and flag



arrays. Grounding the flag elements converts them into EWE elements with 6 dB additional signal output. Single EWE elements generally have poor patterns which are ground dependent. But dual EWE arrays have much better patterns and are more or less ground independent, just like dual flag arrays. Thus before sunset when greater gain is needed, the array can be operated as a dual EWE array, while near and after sunset the array can be changed to a flag array with superior splatter reduction. The reverse is done at sunrise.

The 3 MHz low pass filter is for use between the phaser-combiner and the Perseus receiver if high power SW broadcasters overload Perseus.

Tests of the dual active 2 ground delta flag array at a coastal Maine premium MW DX site are scheduled for the near future.

Update: The FET follower in the schematic above is now available from Clifton Laboratories [here](#) .