

## **"Curtains for You"**

As Forty Meters has traditionally been the most productive band on CW for our Club Field Day efforts, I would like to put up more than the usual dipole this year. The most attractive antenna appears to be a Sterba Curtain. I would ideally like the antenna design to center on 40, but this may not be practical. Perhaps we could design it for 30 Meters- that would be close enough to tune it and enjoy most of the benefits and gain of the Sterba.

My plan would be to put up the 2 section Sterba, run ladder line to a tuner in a temporary "dog house" to protect the antenna tuner in it, adjust the tuner at the center of the 40 Meter CW band, and run the needed length of feed line with coaxial cable to the Transceiver. Once tuned, we should be able to operate the whole 40 meter CW band without having to retune.

A two-section Sterba would be a full wavelength from end to end, and a half wavelength in height. Ideally, the bottom should be a half wavelength off the ground. At lower heights, it still has to be a lot better than a dipole. The 2 section Sterba should fit nicely between the stadium light poles. Provisions could be included to rotate the array.

Required materials would include:

1. A full wavelength of 450 ohm ladder line. For 40 meters this would be approximately 133 feet. For 30, this would be about 90 feet. Added to this would be a short section to the dog house.
2. 3 full wavelengths of wire. For 40 meters, about 400 feet, for 30, about 300 feet. I have been collecting wire, this should be no problem.
3. 8 Insulators (can be fabricated)
4. Tuner and Coax.
5. Rope- undetermined amount.

## **The Sterba Curtain: What is it, and what makes it so great?**

The Sterba is a gain antenna, with the gain depending on the number of dipoles pairs. The unique signature of the Sterba is the use of ladder line with a half turn to provide the proper phase to the dipoles.

The basic Sterba unit is 2 parallel half wave dipoles with a half wave phasing harness between them. You may add as many units as you have wire and room.

The amount of wire in this antenna alone makes it a great receive antenna.