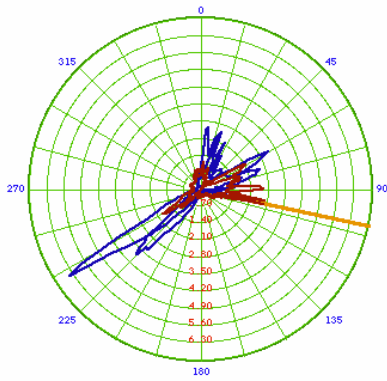
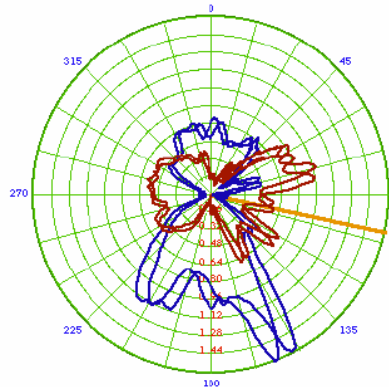


Antenna Pattern Measurement Test

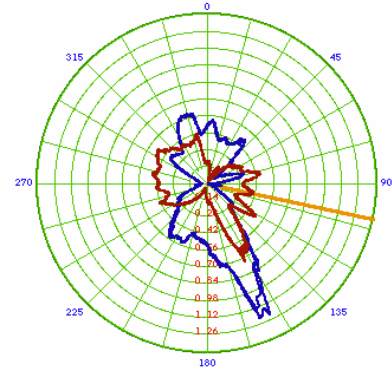
The antenna on the Fourth Island of the Chesapeake Bay Bridge Tunnel (CBBT) was temporarily removed, placed closer to the center of the rooftop and raised an additional 4 meters in order to see if we could improve the antenna pattern. The first pattern files I created on the afternoon of the test are shown below in addition to the pattern we measured in May for comparison. Note that these are raw loop files shown before any alignment, filtering or smoothing operations.



Nov 13 Test Location Pattern



Nov 13 Original Location



May 22 Pattern

The test pattern with the new location and height were much worse than the previous pattern from May and the one done later that day when the antenna was moved back to its original location. Knowing this, we certainly would not spend the time or money to relocate to the center of the roof with a higher mast.

The second pattern in the original location was different from the one measured back in May. It had some similar characteristics, but was even more distorted.

Two Stars police radio antennas operating at 150Mhz were installed close to our antenna since the last pattern measurement. These are roughly 10 meters away and at a bearing of 237 degrees. This had an effect on the pattern in the original location and based on bearing was most likely the reason for the extreme distortion of test location pattern.

From what we learned have so far, we are seriously considering moving this site from the Bay Bridge to a more suitable area perhaps Kiptopeke or Hampton. We are now going to be putting some effort into looking for the best alternative site.