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Cameron Chapman  
University of Colorado, UCB 425  
Boulder, Colorado 80310  
970-389-5904  
Cameron.chapman@colorado.edu

### **Coexistence Analysis:**

This document is intended to facilitate a quick turn around of the STA application. It includes analysis based on the FCC database. It is not intended to replace the FCC OET analysis.

The experiments will take place on the roof of the engineering center at the University of Colorado at Boulder and will broadcast directly down to the adjacent parking lot as shown in figures 1 and 2.

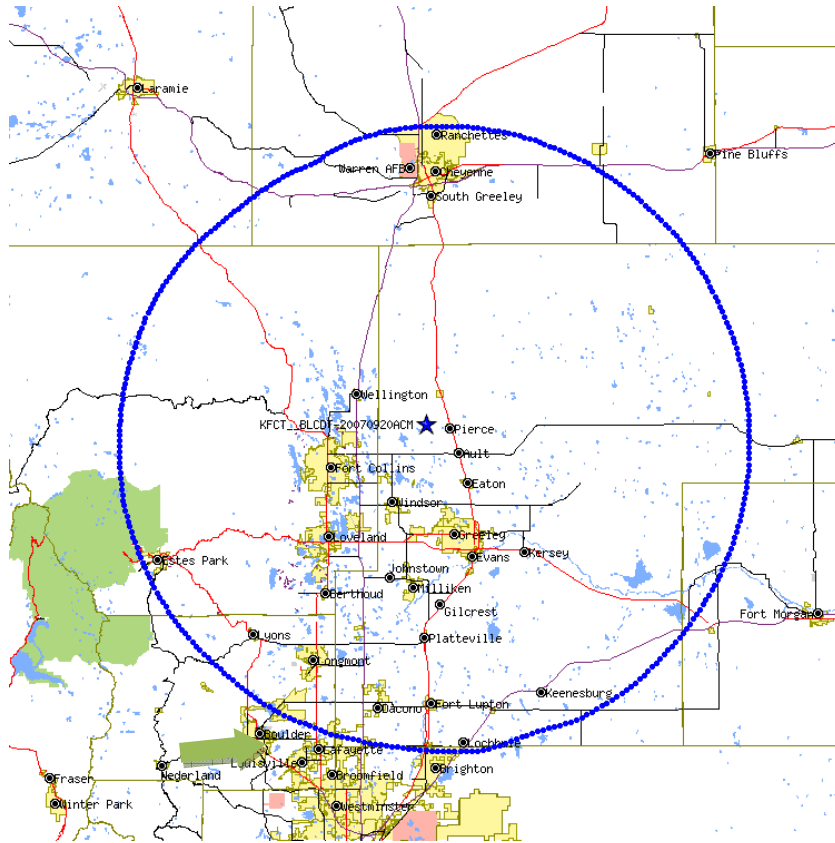


**Figure 1: View of antenna location (green) and target (red)**

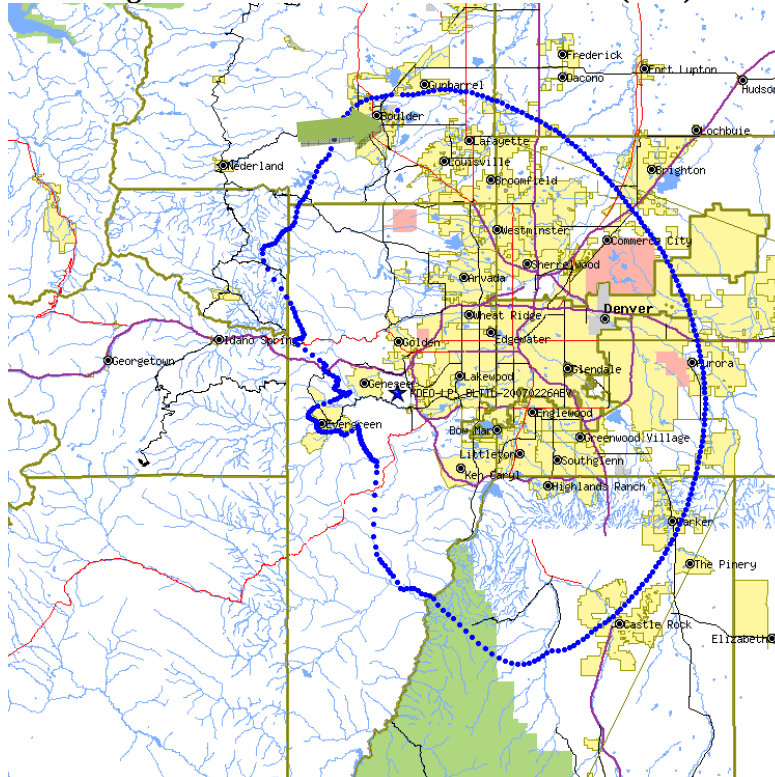


**Figure 2: View of antenna location and target from parking lot**

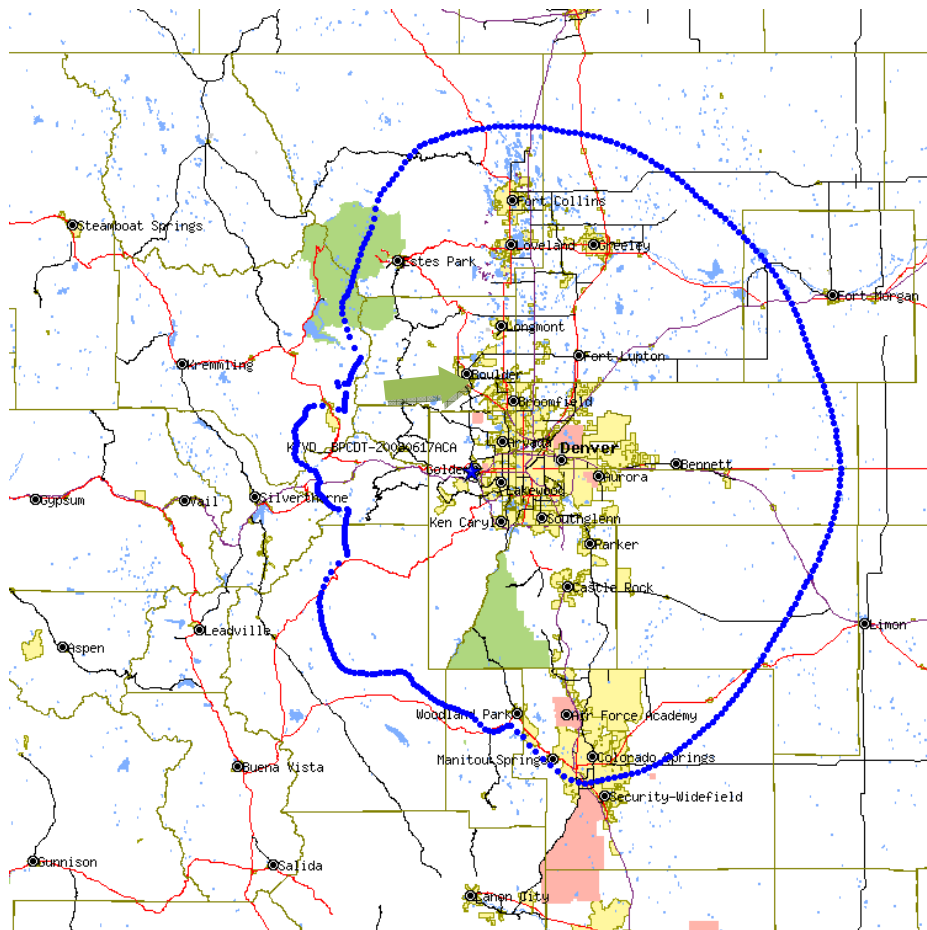
The 515 MHz transmitter operates within the TV broadcast band at an ERP of 10W, and with a bandwidth of 30 MHz. Due to the broadcast direction being directly downwards, relatively low power and distance from other antennas with similar frequencies, this antenna will not interfere with any other broadcasts. The transmission is also only for 30ns every 10 $\mu$ s for approximately 300  $\mu$ s for each test, so any interference would be extremely short. The nearest co-channel transmitter, KFCT-TV, is 67.96 km away as shown in Figure 3. The service contour does not include the Boulder area. On the edges of the 30 MHz bandwidth are KTVD, at 500 - 506 MHz, and KDEO-LP, at 524 - 530 MHz, shown in figures 4 and 5



**Figure 3: Nearest co-channel transmitter (blue)**



**Figure 4: KDEO-LP (blue)**



**Figure 5: Nearest KTVD (blue)**