

Antenna Installation

On July 27, 2013 I arrived at the KDVS tower site at 38-35-46.7 N 121-40-52.9 W (Converted to NAD 83), 7.3 km NE of downtown Davis, CA. The plan was to mount a directional antenna according to FCC construction permit BMPED-20120919ABX and documentation provided by Jampro Antennas of Sacramento, CA, the company that furnished the antenna proof of performance.

The construction permit prescribes a directional antenna pattern that is produced by the use of six JMPC RFR antennas. Attached to this application is the antenna proof of performance. The proof demonstrates the measured antenna pattern, taking into account the individual tower and tower-mounting scenario as detailed by the permittee to Jampro prior to testing on a range.

Within the setup, a tower is proposed with one of its faces aligned with a 320 degree boom heading, mounted on the north leg of a self-standing tapered tower owned by Results Radio.

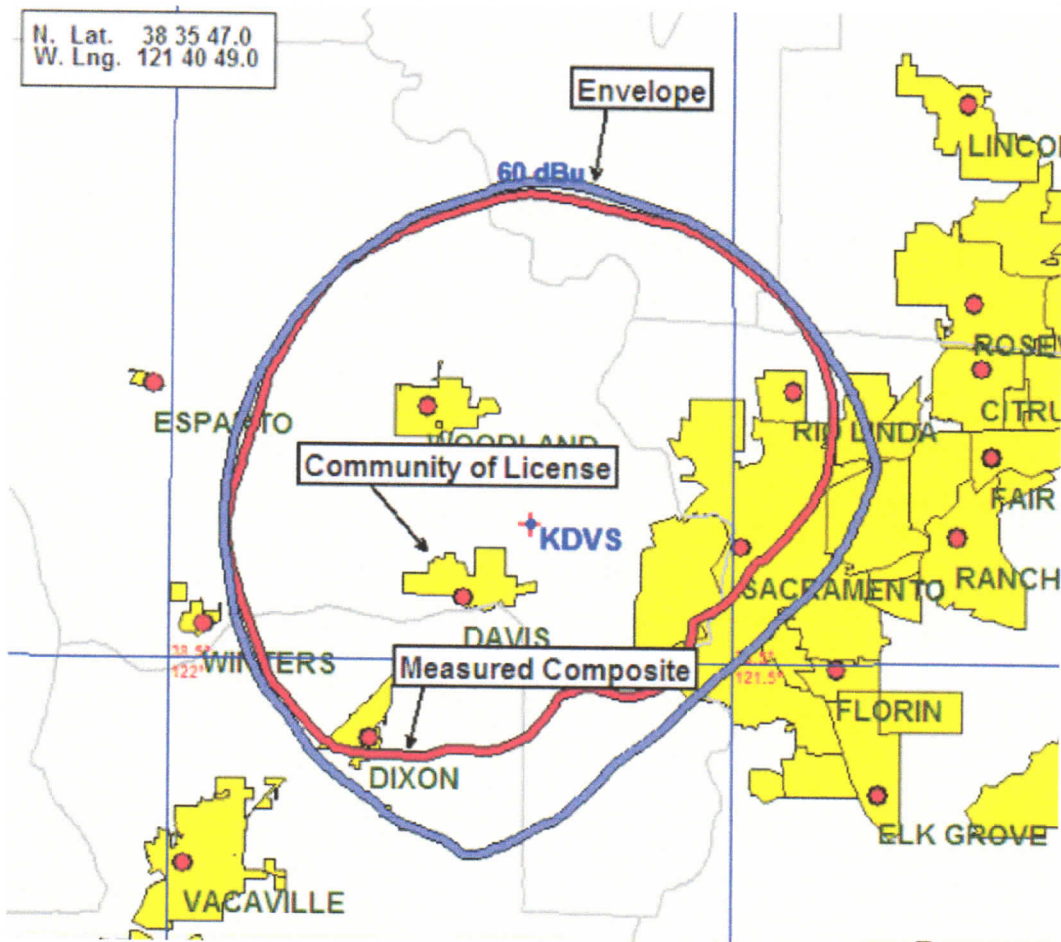
I arrived on site to find that, the surveyor had previously prescribed the alignment markings. The Surveyor showed up on site and set up his transit. He then worked with P&R Tower and aligned the first bay on the tower and verified its coordinates. Then the other antennae bays were installed and properly aligned to the first bay by P&R Tower.

In total:

- The six bay array was installed, spaced at $64 \frac{3}{4}$ ", correlation to 0.5 wave spacing.
- The antennas were mounted on the north leg, aligned to the 320 degree azimuth (The surveyor's certification is attached).
- The antennas were mounted with the center of radiation of 59 meters, as specified on the construction permit.

Measured Antenna Pattern

Both the FCC envelope pattern and the measured calculated composite antenna pattern data were entered into computer software, and then 60 dBu contours plotted (measured antenna values taken from page 8 of the antenna proof of performance). Adequate coverage of the community of license, Davis, CA, was confirmed covered by the measured antenna pattern, conforming to 47 C.F.R. Sections 73.315 or 73.515 (see next page).



Envelope vs. Measured Pattern: Measured Pattern covers 100% of the community of license.

ERP Calculation Check

Cable: Eupen Foam-Dielectric EC7-50A, loss 0.203 dB per 100 ft @ 90.3 MHz
 59.0 m = 0.406 dB loss
 Antenna: 5.45dB gain
 ERP: 13.0 KW = 11.1 dBW
 $11.1 + 0.406 - 5.45 = 62.7$
 = 3.705 KW TPO.

Validation

I, Tim Parish, certify that the report above, on behalf of the applicant, to be accurate and true to the best of my knowledge. I have spent 15 years as a radio broadcast engineer working for both commercial and non-commercial radio stations. This background is seen as qualified as the overseeing engineer for these purposes.

Signed,

Tim Parish