

73.525 Compliance

There are several considerations outlined in 47 C.F.R. 73.525 for TV Channel 6 protection. Outlined below are the various factors as they apply to the proposed operation and KUAT-TV.

1) Distance between proposed operation and KUAT-TV

47 C.F.R. 73.525(a)(1) requires a minimum separation of 196 kM for a channel 208 operation. The distance between the proposed station and KUAT-TV is 162.26 kM.

2) Population Limitation

When a proposed non-commercial station is not co-located with the channel 6 station question, the applicant is required to show that the interference area (as predicted by the procedures outlined in 47 C.F.R. 73.525(e)(1)) contains no more than 3,000 persons.

Per 47 C.F.R. 73.525(e)(4), if an applicant chooses to use mixed polarity, the permissible ERP is determined by the formula: $[H + (V/A)]$ is not greater than P

Where: H = the horizontally polarized ERP in kilowatts for mixed polarity

V = the vertically polarized ERP in kilowatts for mixed polarity

A = 40 (if the predicted interference area lies entirely outside the limits of a city of 50,000 persons or more), or 10 (if it does not)

P = the maximum permitted horizontally polarized-only power in kilowatts.

Since the predicted interference area lies entirely outside the limits of a city of 50,000 persons or more, the value of 40 was used for A, giving the result:

$$[30.0 + (30/40)] = 30.75 \text{ kilowatts}$$

All population limits were calculated using the maximum permitted horizontally polarized-only power of 30.75 kilowatts. The actual population figures are contained in Exhibit E-3B, and maps of the interference area are shown in Exhibits E-3C.

For the reasons outlined above, the proposed operation fully complies with the provisions of 47 C.F.R. 73.525.

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Population in the predicted interference area was determined using the centroid method and the 2000 census.

The predicted interference contour is determined from 47 C.F.R. 73.599 Figure 1 for channel 208 to be 67.3 dBu. An additional 6 dB adjustment is allowed for receiving antenna directivity (per 73.525(e)(1)(iii)) for the area outside the KUAT grade A contour, but within the grade B contour (see Exhibit E-3E for a tabulation of the KUAT protected contour values and the corresponding channel 208 interfering contours). Since the azimuth between the proposed facility and KUAT is 128.6°, the adjusted value of 73.3 dBu is used between 18.6° and 238.6°, clockwise. The standard value of 67.3 dBu would be used between 238.7° and 18.5°, clockwise.

The interfering contour of the proposed operation does not cross the Grade B contour of KUAT (see Exhibit E-3C), therefore there is no interference area.

Therefore, the proposed operation is within the limitations of 47 CFR 73.525(c).

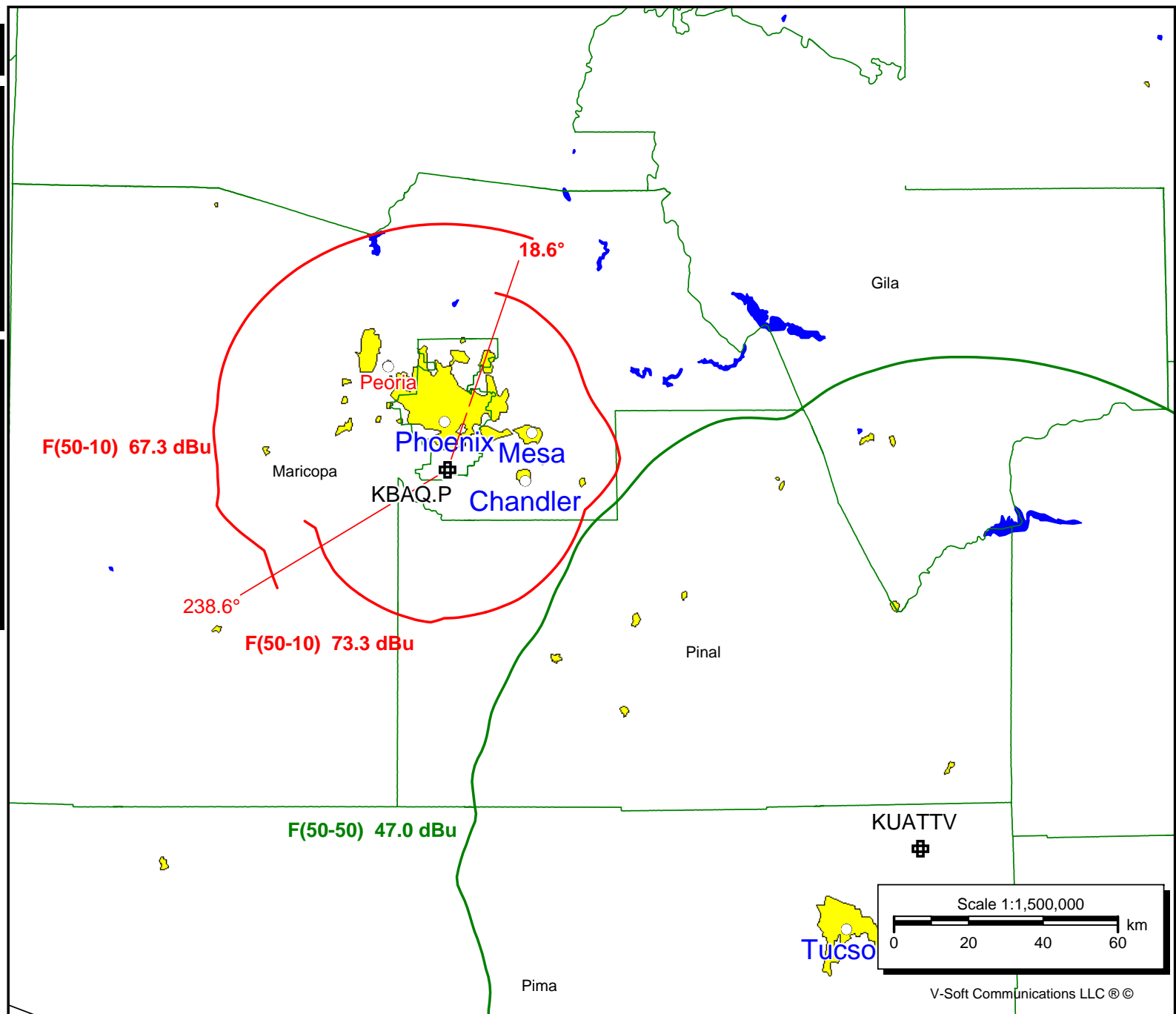
Exhibit E-3C

KBAQ.P

BLED19980609KG
Latitude: 33-19-58 N
Longitude: 112-03-53 W
ERP: 30.75 kW
Channel: 208
Frequency: 89.5 MHz
AMSL Height: 841.0 m
Horiz. Pattern: Directional
Vert. Pattern: No

KUATTV

BLET20030103AAW
Latitude: 32-24-55 N
Longitude: 110-42-51 W
ERP: 33.90 kW
Channel: 06+
Frequency: 85.5 MHz
AMSL Height: 2660.0 m
Elevation: 2419.33 m
Horiz. Pattern: Omni
Vert. Pattern: Yes
Elec Tilt: 0.0



Channel 6 vs Channel 208

| Channel 6 Contour | Value from 73.599 | Channel 209 Contour | Adjusted 6 dB |
|---------------------|-------------------|---------------------|---------------|
| 47 (grade B) | 20.3 | 67.3 | 73.3 |
| 48 | 18.6 | 66.6 | 72.6 |
| 49 | 17.4 | 66.4 | 72.4 |
| 50 | 16.2 | 66.2 | 72.2 |
| 51 | 15.0 | 66.0 | 72.0 |
| 52 | 13.9 | 65.9 | 71.9 |
| 53 | 13.0 | 66.0 | 72.0 |
| 54 | 12.0 | 66.0 | 72.0 |
| 55 | 11.2 | 66.2 | 72.2 |
| 56 | 10.3 | 66.3 | 72.3 |
| 57 | 9.4 | 66.4 | 72.4 |
| 58 | 8.5 | 66.5 | 72.5 |
| 59 | 7.7 | 66.7 | 72.7 |
| 60 | 6.9 | 66.9 | 72.9 |
| 61 | 6.3 | 67.3 | 73.3 |
| 62 | 5.5 | 67.5 | 73.5 |
| 63 | 5.0 | 68.0 | 74.0 |
| 64 | 4.4 | 68.4 | 74.4 |
| 65 | 3.8 | 68.8 | 74.8 |
| 66 | 3.4 | 69.4 | 75.4 |
| 67 | 3.0 | 70.0 | 76.0 |

| Channel 6 Contour | Value from 73.599 | Channel 209 Contour | Adjusted 6 dB |
|-------------------|-------------------|---------------------|---------------|
| 68 (grade A) | 2.5 | 70.5 | 76.5 |
| 69 | 2.3 | 71.3 | 77.3 |
| 70 | 2.0 | 72.0 | 78.0 |
| 71 | 1.7 | 72.7 | 78.7 |
| 72 | 1.4 | 73.4 | 79.4 |
| 73 | 1.3 | 74.3 | 80.3 |
| 74 | 0.9 | 74.9 | 80.9 |
| 75 | 0.7 | 75.7 | 81.7 |
| 76 | 0.5 | 76.5 | 82.5 |
| 77 | 0.4 | 77.4 | 83.4 |
| 78 | 0.1 | 78.1 | 84.1 |
| 79 | -0.1 | 78.9 | 84.9 |
| 80 | -0.2 | 79.8 | 85.8 |
| 81 | -0.4 | 80.6 | 86.6 |
| 82 | -0.6 | 81.4 | 87.4 |
| 83 | -0.7 | 82.3 | 88.3 |
| 84 | -0.9 | 83.1 | 89.1 |
| 85 | -1.1 | 83.9 | 89.9 |
| 86 | -1.2 | 84.8 | 90.8 |
| 87 | -1.4 | 85.6 | 91.6 |
| 88 | -1.6 | 86.4 | 92.4 |
| 89 | -1.7 | 87.3 | 93.3 |
| 90 | -1.8 | 88.2 | 94.2 |