

**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 211 kilometers for a channel 206 operation. The distance between the proposed station and KUAT-TV is 147.47 kilometers.

**2. Population Limitation**

When a proposed non-commercial station is not co-located with the channel 6 station in 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:

$$[2.5 + (2.5/40)] = 2.5625 \text{ kilowatts}$$

All population limits were calculated using the maximum permitted horizontally polarized only power of 2.5625 kilowatts. The actual population figures are contained in Exhibit E-3B, and a map of the interference area is shown in Exhibits E-3C and E-3D.

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 (of the theoretical horizontal component of 2.5625 kilowatts) is contained within the KUAT Channel 6 grade B (47 dBu F(50,50)) contour (see Exhibit 18B).

The predicted interference contour is determined from 47 C.F.R. 73.599 for channel 206 to be 63.5 at the KUAT-TV 47 dBu F(50,50) contour where there is a small area of overlap, with an additional 6 dBu adjustment made for receiving antenna directivity (per 47 C.F.R. 73.525(e)(1)(iii) for the area outside the KUAT grade A contour, but within the grade B contour (see Exhibit 18C for a tabulation of the KUAT protected contour values and the corresponding channel 206 interfering contours). Since the azimuth between the proposed facility and KUAT is 144° true, the standard value of 63.5 dBu would apply between 254° true and 34° true, counterclockwise, however, this area is completely outside the KUAT-TV 47 dBu contour. The adjusted value of 69.5 dBu is used between 34° and 254° true (the overlap area).

Exhibit 18B shows the 47 dBu F(50,50) contour for KUAT, and the 69.5 dBu F(50,10) contours for the proposed modification. The total population in the overlap area is 801 persons. Therefore, the proposed operation is within the limitations of 47 CFR 73.525(c).

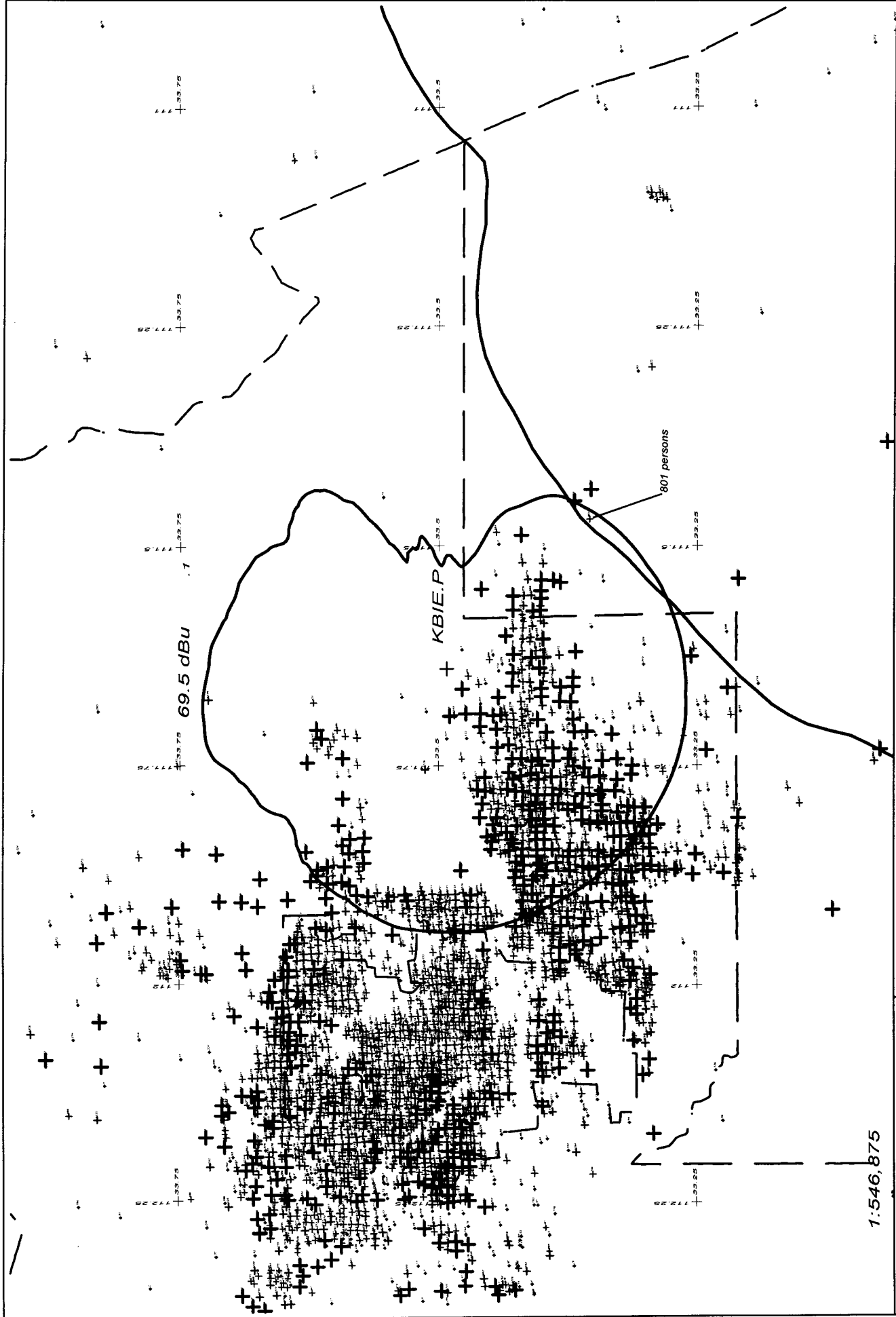


EXHIBIT 18B  
EMF - 03/03

**Educational Media Foundation**  
**5700 West Oaks Boulevard**  
**Rocklin, CA 95765**

**KBIE, Fountain Hills, AZ**  
**Exhibit 18C**  
**Channel 6 vs Channel 206**

Channel 6 Contour	Value from 73.599	Channel 206 Contour	Adjusted 6 dB
47 (grade B)	16.5	63.5	69.5
48	15.3	63.3	69.3
49	14.2	63.2	69.2
50	13.1	63.1	69.1
51	12.2	63.2	69.2
52	11.3	63.3	69.3
53	10.5	63.5	69.5
54	9.7	63.7	69.7
55	9.0	64.0	70.0
56	8.3	64.3	70.3
57	7.7	64.7	70.7
58	7.1	65.1	71.1
59	6.5	65.5	71.5
60	6.0	66.0	72.0
61	5.5	66.5	72.5
62	5.0	67.0	73.0
63	4.5	67.5	73.5
64	4.0	68.0	74.0
65	3.7	68.7	74.7
66	3.3	69.3	75.3
67	2.8	69.8	75.8

Channel 6 Contour	Value from 73.599	Channel 206 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