Educational Media Foundation **Exhibit 18**
5700 West Oaks Boulevard ♦ Rocklin ♦ California ♦ 95765 **Tucson, AZ**

Compliance with 47 C.F.R. 73.525

Introduction

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.

Distance between proposed operation and KUAT-TV

47 C.F.R. 73.525(a)(1) requires a minimum separation of 225 kilometers for a channel 205 operation. The distance between the proposed station and KUAT-TV is 23.17 kilometers.

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. The actual population figures are contained in Exhibit 18-B, and a map of the interference area is shown in Exhibit 18-A.

Vertically Polarized Transmissions

When an applicant wises to use vertically polarized transmissions only, C.F.R. 74.525(e)(4) limits the vertical ERP to the maximum permissible horizontally polarized ERP multiplied by 40 (if the predicted interference area lies entirely outside the limits of a city of 50,000 persons) or 10 (if not). The maximum horizontally polarized ERP for the proposed facility is 0.045 kilowatts (See Exhibits 18-A through 18-B). Since the predicted interference area lies entirely outside the limits of a city of 50,000 persons, that is multiplied by 40 to obtain the vertical-only ERP of 1.8 kilowatts specified in this application.

Discussion

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 0.045 kilowatts) is contained within the KUAT-TV 90 dBu F(50,50) contour (see Exhibit 18-B).

The predicted interference contour is determined from 47 C.F.R. 73.599 for channel 205 to be 88.7 dBu. (See Exhibit 18-C for a tabulation of the KUAT-TV protected contour values and the corresponding channel 205 interfering contours)

Exhibit 18-A shows the 90 dBu F(50,50) contour for KUAT-TV. Also shown is the corresponding F(50,10) interfering contour for the proposed channel 205 facility. A population report of the area contained within the interfering contour is included at Exhibit 18-B. The total population contained within the interfering contour is 1,628 persons.

Conclusion

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

EMF BROADCASTING

Exhibit 18-A

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
Horiz. Pattern: Omni
Vert. Pattern: Yes
Elec Tilt: 0.0

KAIC.P
BPED19951208MB
Latitude: 32-36-56 N
Longitude: 110-38-38 W
ERP: 0.045 kW
Channel: 205
Frequency: 88.9 MHz
AMSL Height: 1090.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model:

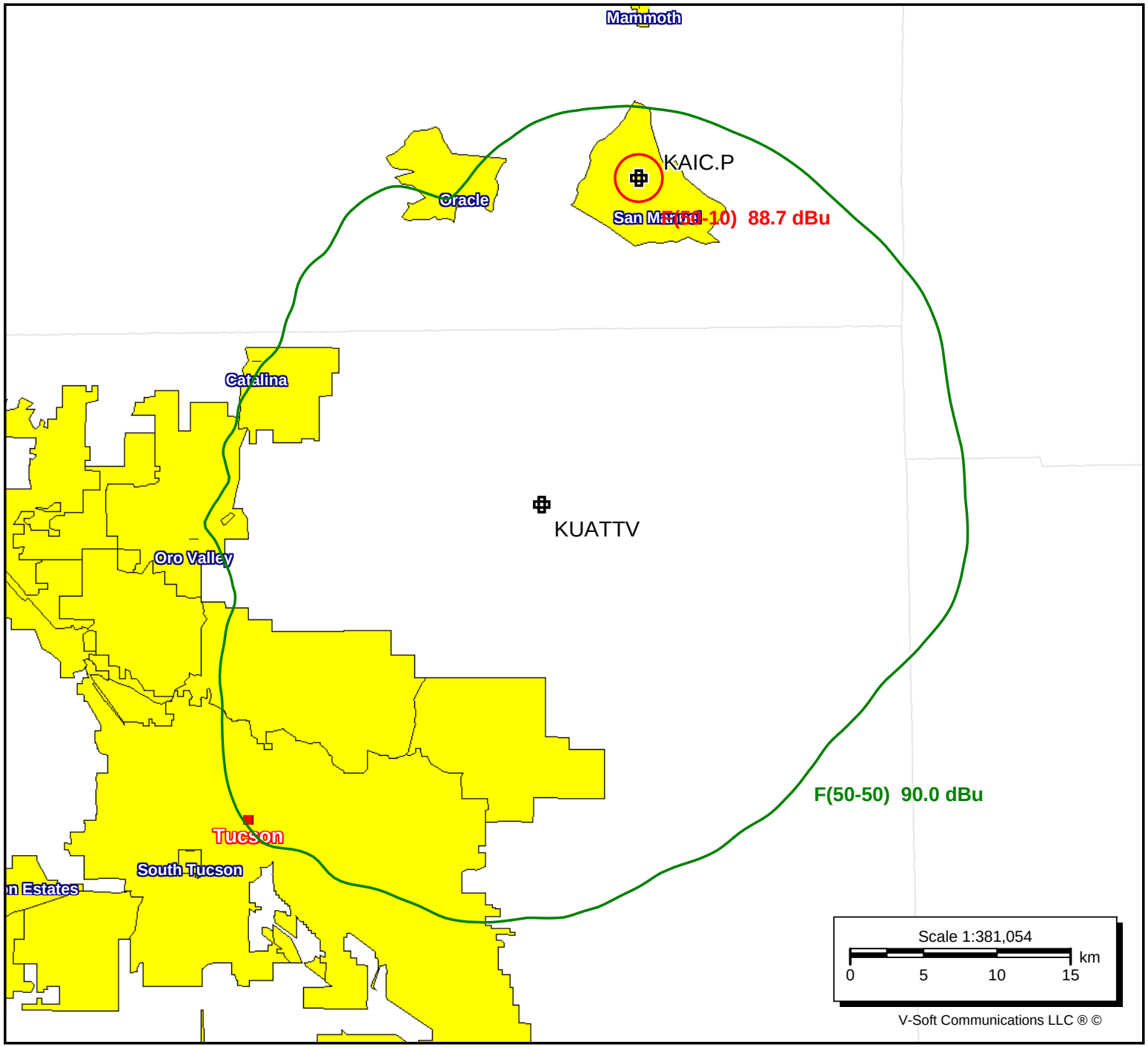

Exhibit 18-B

V-Soft Communications Population Report

Contour Parameters:
Type: FCC Contour
F(50-10) FS: 88.70 dBu [360 Radials]

Population Database: 2000 US Census (SF1)

Primary Terrain: V-Soft 30 Second US Database
Secondary Terrain: V-Soft 3 Second US Terrain

Transmitter Information:

Call Letters: KAIC.P
File Number: BPED19951208MB
Latitude: 32-36-56 N
Longitude: 110-38-38 W
ERP: 0.045 kW
Channel: 205
Frequency: 88.9 MHz
AMSL Height: 1090.0 m
Elevation: 1054.151 m
Horiz. Antenna Pattern: Omni
Vert. Elevation Pattern: No

Total Population Within Contour: 1,628
Total Housing Units Within Contour: 745
Total Area Within Contour: 8.14 sq. km

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Exhibit 18-C
Tucson, AZ

Channel 6 vs Channel 205

Channel 6 Contour	Value from 73.599	Channel 205 Contour	Adjusted 6 dB
47 (grade B)	12.0	59.0	65.0
48	11.6	59.6	65.6
49	11.2	60.2	66.2
50	10.7	60.7	66.7
51	10.3	61.3	67.3
52	9.8	61.8	67.8
53	9.3	62.3	68.3
54	8.9	62.9	68.9
55	8.4	63.4	69.4
56	8.0	64.0	70.0
57	7.6	64.6	70.6
58	7.1	65.1	71.1
59	6.7	65.7	71.7
60	6.3	66.3	72.3
61	5.9	66.9	72.9
62	5.5	67.5	73.5
63	5.1	68.1	74.1
64	4.7	68.7	74.7
65	4.4	69.4	75.4
66	4.0	70.0	76.0
67	3.7	70.7	76.7

Channel 6 Contour	Value from 73.599	Channel 205 Contour	Adjusted 6 dB
68 (grade A)	3.3	71.3	77.3
69	3.1	72.1	78.1
70	2.8	72.8	78.8
71	2.5	73.5	79.5
72	2.3	74.3	80.3
73	2.1	75.1	81.1
74	1.9	75.9	81.9
75	1.7	76.7	82.7
76	1.5	77.5	83.5
77	1.3	78.3	84.3
78	1.0	79.0	85.0
79	0.8	79.8	85.8
80	0.6	80.6	86.6
81	0.4	81.4	87.4
82	0.2	82.2	88.2
83	0.0	83.0	89.0
84	-0.2	83.8	89.8
85	-0.4	84.6	90.6
86	-0.6	85.4	91.4
87	-0.7	86.3	92.4
88	-0.9	87.1	93.1
89	-1.2	87.8	93.8
90	**-1.3**	**88.7**	94.7