Educational Media Foundation
5700 West Oaks Boulevard
Rocklin, CA 95765

Channel Study

The FCC F(50/50) 60dBu contour of the construction permit and proposed facility of K290BZ overlap.

2nd adjacent KKHB and KINS-FM are addressed in Exhibit 13 - A.

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REFERENCE            CH# 290D - 105.9 MHz, Pwr= 0.25 kW,  HAAT= -4.0 M,  COR= 43 M       DISPLAY DATES
40 47 28.0 N.                      Average Protected F(50-50)= 7.1 km                    DATA   07-24-14
124 10 52.0 W.                              Omni-directional                             SEARCH 07-24-14
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CH     CALL      TYPE  ANT     AZI.  DIST            LAT.        Pwr(kW)  INT(km) PRO(km)   *IN*     *OUT*
CITY                STATE      <--   FILE #          LNG.        HAAT(M)  COR(M)  LICENSEE  (Overlap in km)
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288C1 KKHB       LIC  CX    109.2   20.43           40 43 50.0  28.000    9.5     84.5      3.9      -65.2*
Eureka                CA   289.3 BMLH20050722ACV   123 57 07.0   484     902  Bicoastal Media Licenses I

292C2 KINS-FM    LIC ZCX    111.8   19.02           40 43 38.9  3.300     3.8     63.0      8.2      -45.1*
Blue Lake             CA   291.9 BLH20071106ACQ    123 58 17.0   516     912  Eureka Broadcasting Co., I

290D  K290BZ     CP   C     112.3   18.84           40 43 36.0  0.010     55.1    14.9    -43.2*     -19.9
Kneeland              CA   292.4 BNPFT20130328AVA  123 58 27.0   457     819  Educational Media Foundati

236C3 KMDR       LIC  CX     75.7   15.64           40 49 32.0  2.300     0.0      0.0      11.5R      4.1M
Mckinleyville         CA   255.9 BLH20101025AAH    124 00 05.0   326     572  Mad River Radio, Inc.

236D  KMDR-FM1   LIC DV     195.3   33.42           40 30 03.0  0.164     0.0      0.0       9.5R     23.9M
Fortuna               CA    15.2 BLFTB20130918AIU  124 17 08.0           749  William W. Mccutchen Iii

291C  KRRX       LIC  CN     85.5  198.36           40 54 21.0  100.000   151.8  104.9     39.5       83.4
Burney                CA   267.1 BLH19850626KH     121 49 38.0   600     1729 Mapleton License Of Reddin

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Terrain database is NGDC 30 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points.Reference Zone= West Zone, Co to 3rdadjacent.
All separation margins (if shown) include rounding
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E),Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside protected contour.
« = Station meets FCC minimum distance spacing for its class.
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Compliance with C.F.R. 74.1204

The proposed FM Translator is located within the protected 60 dBu contour of second adjacent channel stations KKHB channel 288C1 (Eureka, CA) and KINS-FM channel 292C2 (Blue Lake, CA). According to 74.1204(a)(3), in order to protect second and third adjacent facilities, the difference in dBu between the two facilities must not exceed 40dBu.

The proposed ERP for K209BZ:	250 watts
The proposed COR for K209BZ:	40 meters
KKHB F(50/50) contour at proposed site:	90.5 dBu
The F(50/10) contour of proposed K209BZ	130.5 dBu
The predicted distance to K209BZ interference contour:	33 meters
KINS-FM F(50/50) contour at proposed site:	82.7 dBu
The F(50/10) contour of proposed K209BZ	122.7 dBu
The predicted distance to K209BZ interference contour:	81 meters

By taking into account the antenna vertical elevation pattern for the JAMPRO JLCP, it has been determined that the furthest predicted interfering contour will not actually reach the ground (see Exhibit 13 A-1).

Therefore, EMF respectfully requests a waiver of C.F.R. 74.1204.

EXHIBIT 13 - A1
74.1204(d) Showing
K290BZ
KNEELAND, CA

ERP (kw): 0.25
Height of Antenna above Ground (m): 40
Translator's IX Contour: 122.7
Antenna Type: JLCP-1BAY

Depression Angle from Horizon	Antenna Relative Field	ERP (kw) from the Antenna RF	Dist. To IX Contour (m)	Height IX Contour Above Ground (m)
0	1.000	0.2500	81.2774	40.000
5	0.994	0.2470	80.7898	32.959
10	0.975	0.2377	79.2455	26.239
15	0.940	0.2209	76.4008	20.226
20	0.910	0.2070	73.9625	14.703
25	0.880	0.1936	71.5241	9.773
30	0.840	0.1764	68.2730	5.863
35	0.770	0.1482	62.5836	4.104
40	0.710	0.1260	57.7070	2.907
45	0.650	0.1056	52.8303	2.643
50	0.600	0.0900	48.7665	2.643
55	0.520	0.0676	42.2643	5.379
60	0.450	0.0506	36.5748	8.325
65	0.380	0.0361	30.8854	12.008
70	0.320	0.0256	26.0088	15.560
75	0.250	0.0156	20.3194	20.373
80	0.180	0.0081	14.6299	25.592
85	0.140	0.0049	11.3788	28.664
90	0.010	0.0000	0.8128	39.187