Educational Media Foundation
5700 West Oaks Boulevard
Rocklin, CA 95765

Channel Study

REFERENCE — CH# 241D - 96.1 MHz, Pwr= 0.205 kW, HAAT= 87.3 M, COR= 188 M — DISPLAY DATES
34 45 58.0 N. — Average Protected F(50-50)= 11.5 km — DATA 03-21-17
92 17 38.0 W. — Omni-directional — SEARCH 03-21-17

CH CALL / CITY	TYPE ANT / STATE	AZI. <--	DIST / FILE #	LAT. / LNG.	Pwr(kW) / HAAT(M)	INT(km) / COR(M)	PRO(km) / LICENSEE	*IN* (Overlap in km)	*OUT* (Overlap in km)
239C KSSN Little Rock	LIC CY AR	281.6 101.5	18.44 BLH19831117BH	34 47 57.0 92 29 29.0	100.000 507	12.5 632	86.3 Cc Licenses, Llc	-2.9<	-68.8*<
241D K241AP! Ferndale	LIC C AR	279.9 99.8	17.13 BLFT20070103ACN	34 47 33.0 92 28 42.0	0.023 287	39.3 412	11.8 Educational Media Foundati	-30.5	-22.3
243C3 KHTE-FM England	LIC NCN AR	158.1 338.2	33.48 BLH19960307KB	34 29 10.0 92 09 27.0	10.500 151	3.9 229	39.5 Crain Media Group, Llc	17.4	-7.1*<
241C1 KMRX El Dorado	LIC CN AR	191.4 11.2	169.14 BLH19981019KB	33 16 16.0 92 39 17.0	100.000 136	154.8 186	58.4 Noalmark Broadcasting Corp	2.1	68.8
294C2 KHLR Benton	LIC CX AR	281.3 101.1	18.81 BLH20120724AAY	34 47 56.0 92 29 44.0	13.000 293	78.0 420	65.0 Signal Media Of Arkansas,	15.0R	3.8M
241C2 KCWD Harrison	LIC NCN AR	336.1 155.7	163.65 BLH19910116KA	36 06 41.0 93 02 00.0	8.000 363	129.9 710	54.0 Harrison Radio Stations, I	21.8	68.9
242C1 KTTG Mena	LIC CN AR	267.3 86.3	151.28 BLH19941216KA	34 41 24.0 93 56 35.0	47.000 401	102.2 753	69.8 Pearson Broadcasting Of Me	41.7	70.9
244A KLXQ Hot Springs	LIC CX AR	242.2 61.7	85.84 BMLH20050616AAK	34 24 13.0 93 07 14.0	0.940 246	2.0 417	30.3 Us Stations, Llc	73.9	54.5
242D K242AZ Searcy	LIC V AR	45.5 225.9	79.60 BLFT20110525AEY	35 15 58.0 91 40 06.0	0.010 -15	4.4 68	3.2 Crain Media Properties, Ll	63.9	60.2
244C2 KOKR Newport	LIC CN AR	43.9 224.4	111.85 BLH19971020KD	35 29 16.0 91 26 13.0	40.000 167	5.1 271	46.2 Newport Broadcasting Compa	95.6	64.7
242D K242AZ Searcy	CP C AR	18.8 199.0	90.54 BMPFT20150720ACA	35 32 16.0 91 58 13.0	0.250	14.7 246	10.6 Crain Media Properties, Ll	66.2	66.5

Terrain database is GLOBE 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference Zone= West Zone, Co to 3rd adjacent.
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 restricted contour.
« = Station meets FCC minimum distance spacing for its class.
< = Contour Overlap
Reference station has protected zone issue: AM tower

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Compliance with C.F.R. 74.1204

The proposed FM Translator to operate on channel 241 is located within the protected 60dBu contour of second adjacent channel station KSSN, channel 239C, Little Rock, AR. 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 K241AP.P:	205 watts
The proposed COR for K241AP.P:	112 meters
KSSN F(50/50) contour at proposed site:	93.8dBu
The F(50/10) contour of proposed K241AP.P:	133.8dBu

The predicted distance to the 133.8dbu interfering contour is 20.5 meters. Taking into account the vertical elevation pattern of the Nicom BKG77 three bay .85 wavespaced circularly polarized antenna and the height above ground of 112m, it has been determined that the interfering contour of 133.8dbu does not reach the ground. As seen in Exhibit 13-A1, the lowest elevation for this interfering contour is 109m above ground at a distance of 5m from the antenna.

As can be seen in Exhibit 13–A2 there are no surrounding structures which are tall enough to enter the interfering contour within the 20.5m distance from the antenna.

Therefore, EMF respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 13 - A1
74.1204(d) Showing
K241AP
Ferndale, AR

ERP (kw): 0.205
Height of Antenna above Ground (m): 112
Translator's IX Contour: 133.8
Antenna Type: Nicom BKG77-3/.85

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	0.2050	20.5058	112.000
5	0.913	0.1709	18.7218	110.368
10	0.678	0.0942	13.9029	109.586
15	0.357	0.0261	7.3206	110.105
20	0.049	0.0005	1.0048	111.656
25	0.171	0.0060	3.5065	110.518
30	0.270	0.0149	5.5366	109.232
35	0.250	0.0128	5.1265	109.060
40	0.148	0.0045	3.0349	110.049
45	0.015	0.0000	0.3076	111.783
50	0.107	0.0023	2.1941	110.319
55	0.194	0.0077	3.9781	108.741
60	0.238	0.0116	4.8804	107.773
65	0.244	0.0122	5.0034	107.465
70	0.220	0.0099	4.5113	107.761
75	0.185	0.0070	3.7936	108.336
80	0.145	0.0043	2.9733	109.072
85	0.119	0.0029	2.4402	109.569
90	0.114	0.0027	2.3377	109.662

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Compliance with C.F.R. 74.1204

The proposed FM Translator to operate on channel 241 is located within the protected 60dBu contour of second adjacent channel station KHTE-FM, channel 243C3, England, AR. 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 K241AP.P:	205 watts
The proposed COR for K241AP.P:	112 meters
KHTE-FM F(50/50) contour at proposed site:	63.2dBu
The F(50/10) contour of proposed K241AP.P:	103.2dBu

The predicted distance to the 103.2dbu interfering contour is 694 meters. Exhibit 13-A1 demonstrates the distances to the interfering contour by taking into account the vertical elevation pattern of the Nicom BKG77 three bay .85 wave-spaced antenna.

It has been determined that the interfering contour of 103.2dbu does not extend to any regularly occupied structures. As seen in attachment 13-A2, the red line marker demonstrates the distance of 330 meters to the nearest occupied structure. The distance to the areas where the interference hits the ground are no greater than 169 meters from the antenna, therefore, no interference will occur to any potentially occupied structures.

The green line marker demonstrates the distance to the nearest multistory structure. This distance is 733 meters which is 39 meters beyond the interfering distance. The interfering distance above ground is sufficient to insure no interference will occur to any potentially occupied structure.

No main roads (i.e. Interstate or State Highways) are within the 694 meter interfering distance. There are no regularly occupied structures at the base of the tower.

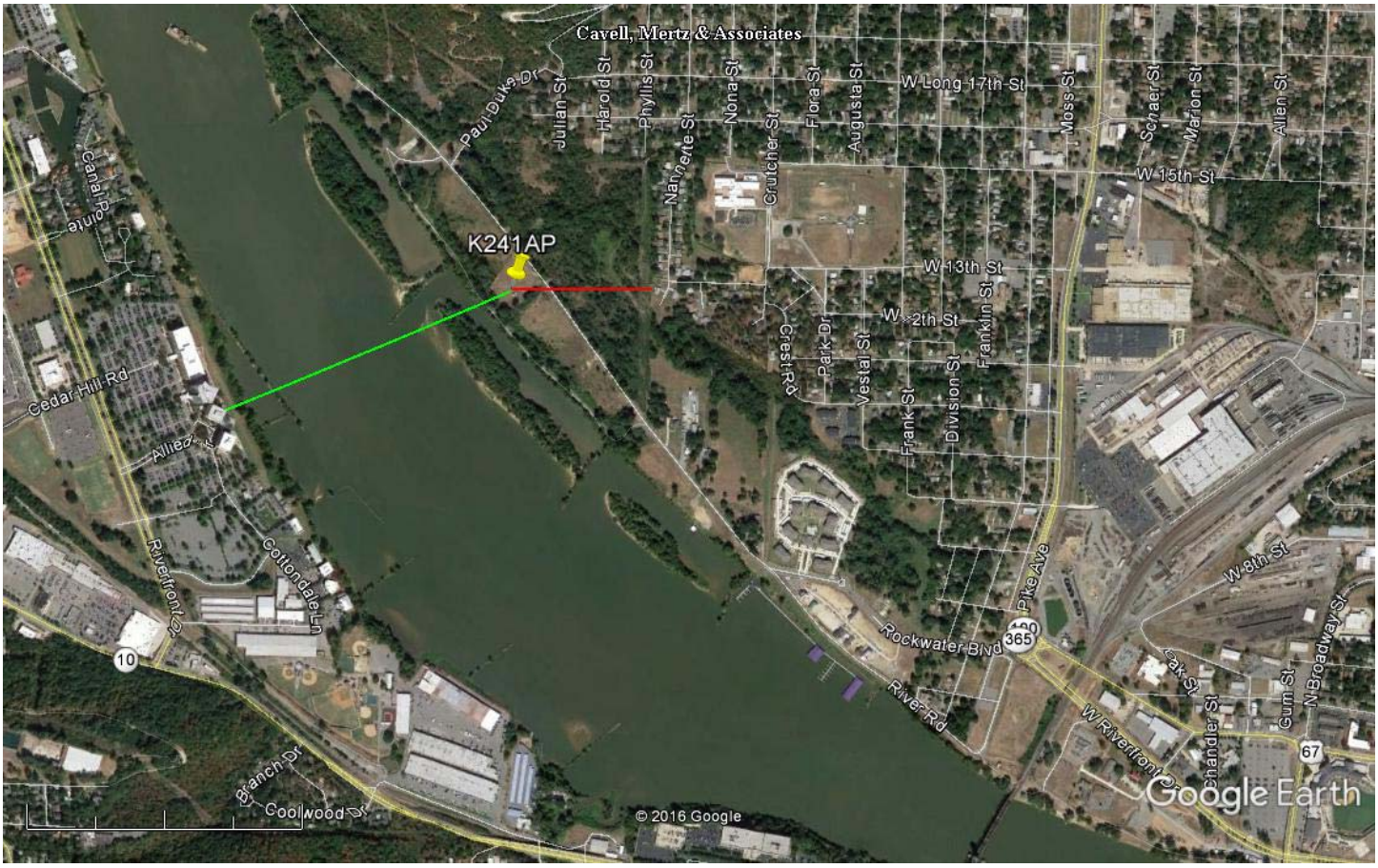
Therefore, EMF respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 13 - A1
74.1204(d) Showing
K241AP
Ferndale, AR

ERP (kw): 0.205
Height of Antenna above Ground (m): 112
Translator's IX Contour: 103.2
Antenna Type: Nicom BKG77-3/.85

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	0.2050	694.8274	112.000
5	0.913	0.1709	634.3774	56.710
10	0.678	0.0942	471.0930	30.196
15	0.357	0.0261	248.0534	47.799
20	0.049	0.0005	34.0465	100.355
25	0.171	0.0060	118.8155	61.786
30	0.270	0.0149	187.6034	18.198
35	0.250	0.0128	173.7068	12.366
40	0.148	0.0045	102.8345	45.899
45	0.015	0.0000	10.4224	104.630
50	0.107	0.0023	74.3465	55.047
55	0.194	0.0077	134.7965	1.581
60	0.238	0.0116	165.3689	-31.214
65	0.244	0.0122	169.5379	-41.654
70	0.220	0.0099	152.8620	-31.643
75	0.185	0.0070	128.5431	-12.163
80	0.145	0.0043	100.7500	12.781
85	0.119	0.0029	82.6845	29.630
90	0.114	0.0027	79.2103	32.790

Exhibit 13-A2



Google Earth

miles 1

km 1

Yellow Pin Marker

NAD 27

34-45-58.0 N 92-17-38.0 W

Red Line Marker: 330m at 90 degrees, the distance to the nearest potentially occupied structure

Green Line Marker: 733m at 247 degrees, the distance to the nearest mulitstory structure