

### Channel Study

REFERENCE CH# 241D - 96.1 MHz, Pwr= 0.099 kW, HAAT= 286.4 M, COR= 411.6 M DISPLAY DATES  
 34 47 33.0 N. Average Protected F(50-50)= 17.5 km DATA 10-08-21  
 92 28 43.0 W. Omni-directional SEARCH 10-12-21

CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr (kW) HAAT (M)	INT (km) COR (M)	PRO (km) LICENSEE	*IN* (Overlap in km)	*OUT*
239C Little Rock	KSSN	LIC	CN AR	302.4 122.4	1.39 BLH19831117BH	34 47 57.30 92 29 29.60	100.000 507	12.5 632	85.9 Ihm Licenses, LLC	-28.5*	-85.2*
241D Ferndale	K241AP!	LIC	CN AR	0.0 227.6	0.00 BLFT20070103ACN	34 47 33.30 92 28 42.60	0.023 287	412	---Reference--- Educational Media Foundati		
241C1 El Dorado	KMRX	LIC	CN AR	185.5 5.4	169.91 BLH19981019KB	33 16 16.50 92 39 17.60	100.000 136	154.8 186	58.4 Noalmark Broadcasting Corp	-1.6	57.6
243C3 England	KHTE-FM	LIC	NCN AR	139.1 319.3	44.96 BLH19960307KB	34 29 10.30 92 09 27.50	10.500 151	3.9 229	39.1 Crain Media Group, LLC	23.5	5.1
241C2 Harrison	KCWD	LIC	NCN AR	341.2 160.9	155.01 BMLH20181204AAQ	36 06 41.20 93 02 00.60	8.000 363	128.4 710	52.9 Harrison Radio Stations, I	8.9	43.2
242C1 Mena	KTTG	LIC	CN AR	265.6 84.7	134.29 BLH19941216KA	34 41 24.30 93 56 35.70	47.000 401	103.0 753	69.1 Pearson Broadcasting Of Me	15.7	39.2
241D Stuttgart	K241CY	LIC	CN AR	112.5 293.1	103.53 0000152160	34 25 52.40 91 26 08.50	0.250	33.8 122	10.1 Arkansas County Broadcaste	52.3	37.7
244A Hot Springs	KLXQ	LIC	CN AR	233.9 53.5	72.94 BMLH20050616AAK	34 24 14.00 93 07 15.00	0.940 246	1.9 411	29.7 Us Stations, LLC	54.6	42.3

Terrain database is GLOBE 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 3rd adjacent.  
 All separation margins (if shown) include rounding. Call signs with exclamation marks need not be protected.  
 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.

**Educational Media Foundation**

5700 W Oaks Blvd  
Rocklin, CA 95765

*Exhibit 1-A  
Ferndale, AR*

**Compliance with C.F.R. 74.1204**

The proposed FM Translator to operate on channel 241D 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:	99 watts
The proposed COR for K241AP:	122 meters
KSSN F(50/50) contour at proposed site:	124.0dBu
The F(50/10) contour of proposed K241AP:	164.0dBu

The predicted distance to the 164.0dbu interfering contour is 0.44 meters. When taking into account the vertical elevation pattern of the 1 bay RFS CPF500 single bay circularly polarized antenna and the height above ground of 122m, it has been determined that the interfering contour of 164.0dbu does not reach the ground. As seen in Exhibit 1-A1, the lowest elevation for this interfering contour is 121.77m above ground at a distance of 0.3m from the antenna.

There are no surrounding structures which are tall enough to enter the interfering contour within the 0.3m 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 1 - A1  
74.1204(d) Showing  
K241AP  
Ferndale, AR

ERP (kw): 0.099  
Height of Antenna above Ground (m): 122  
Translator's IX Contour: 164  
Antenna Type: RFS CPF-500

<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna RF</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Ground (m)</u>
0	1.000	0.0990	0.4404	122.000
5	0.997	0.0983	0.4388	121.962
10	0.986	0.0962	0.4342	121.925
15	0.969	0.0929	0.4265	121.890
20	0.945	0.0883	0.4160	121.858
25	0.914	0.0827	0.4026	121.830
30	0.878	0.0763	0.3866	121.807
35	0.836	0.0692	0.3682	121.789
40	0.789	0.0617	0.3476	121.777
45	0.738	0.0539	0.3250	121.770
50	0.683	0.0462	0.3008	121.770
55	0.625	0.0387	0.2752	121.775
60	0.565	0.0315	0.2486	121.785
65	0.502	0.0250	0.2212	121.800
70	0.439	0.0191	0.1934	121.818
75	0.376	0.0140	0.1655	121.840
80	0.313	0.0097	0.1378	121.864
85	0.251	0.0062	0.1106	121.890
90	0.191	0.0036	0.0842	121.916

## **Human exposure to excess levels of radiofrequency radiation.**

According to 47 C.F.R. 1.1307(b)(1) Table 1, any “Part 74 – Subpart L” facility with an ERP greater than 100 watts, is subject to routine environmental evaluation.

Since the facility proposed in this application will operate with an ERP of less than 100 watts, it is “categorically excluded from making such studies or preparing an EA”  
[1.1307(b)(1)]

EMF will fully cooperate with other site users to temporarily reduce power or cease broadcasting, as necessary, to protect workers and others having access to the site from excessive levels of RF Radiation.