

Educational Media Foundation

5700 West Oaks Boulevard ♦ Rocklin ♦ California ♦ 95765

Exhibit 13

Studio City, CA

Channel Study

REFERENCE		CH# 220D - 91.9 MHz, Pwr= 0.25 kW DA, HAAT= 262.8 M, COR= 469 M								DISPLAY DATES	
34 07 34.0 N.		Average Protected F(50-50)= 21.2 km								DATA 03-14-18	
118 22 03.0 W.		Standard Directional								SEARCH 03-14-18	
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)
222B	KRRL	LIC	CY	68.0	29.96	34 13 36.0	43.000	12.7	117.0	14.6	-87.1*
Los Angeles		CA		248.1	BMLH19921021KA	118 03 57.0	887	1787	Amfm Broadcasting Licenses		
218B	KUSC	LIC	DC	70.9	29.83	34 12 48.0	39.000	11.9	98.7	15.2	-68.9*
Los Angeles		CA		251.1	BLED20000404ABH	118 03 41.0	891	1689	University Of Southern Cal		
220D	K220HC!	LIC	DC	0.0	0.00	34 07 34.0	0.010	0.00	0.00	-65.0R	65.0M
Studio City		CA		0.0	BLFT20140127ADE	118 22 03.0	263	469	Educational Media Foundati		
220B	KVCR	LIC	ZC	99.8	101.54	33 57 57.0	3.800	138.3	59.5	-39.6*	30.0
San Bernardino		CA		280.4	BLED20010511AAG	117 17 05.0	494	939	San Bernardino Community C		
220D	K220FR	LIC	DV	316.7	31.12	34 19 47.0	0.010	27.7	5.0	-17.0	-36.5*
Simi Valley		CA		136.6	BLFT20061221AAO	118 36 00.0	668	1133	Educational Media Foundati		
06---	KZNO-LP	LI	CN	71.0	29.80	34 12 46.1	0.500	0.1	48.6	48.7R	-18.9M
Big Bear Lake		CA		251.2	0000019005	118 03 41.6	-999	1680			
06---	KZNO-LP	CP	CN	70.9	29.83	34 12 47.9	0.220	0.1	40.7	40.8R	-11.0M
Big Bear Lake		CA		251.1	0000011368	118 03 41.1	-999	1680			
220B	KWTD	LIC	NCX	21.9	161.87	35 28 38.0	7.000	144.9	63.0	5.8	61.3
Ridgecrest		CA		202.3	BLED20050621AAO	117 41 58.0	390	1355	Living Proof Inc		
218D	KUSC-FM1	LIC	DC	316.8	31.07	34 19 47.0	0.200	0.1	10.8	10.5	19.2
Santa Clarita		CA		136.7	BLFTB20070920AAC	118 35 57.0		1140	University Of Southern Cal		
222D	KRRL-FM1	LIC	DV	316.9	31.08	34 19 48.0	0.320	0.1	4.6	10.6	25.4
Santa Clarita		CA		136.8	BLFTB20150901ABZ	118 35 56.0		1071	Amfm Broadcasting Licenses		
274B	KIIS-FM	LIC	DCN	68.0	29.96	34 13 36.0	8.000	0.0	0.0	15.0R	15.0M
Los Angeles		CA		248.1	BLH5361	118 03 57.0	902	1802	Citicasters Licenses, Inc.		
*220D	K220FR.P	PRO	D	263.5	38.78	34 05 09.0	0.010	5.6	0.7	26.5	16.0
Simi Valley				83.2		118 47 06.0	607	870	User		
220B	KCSB-FM	LIC	CN	287.4	152.93	34 31 31.0	0.620	106.8	40.1	30.4	61.3
Santa Barbara		CA		106.5	BLED19840928DF	119 57 29.0	879	1239	Regents Of The University		

Terrain database is FCC NGDC 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= East Zone 2A, 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.
Reference station has protected zone issue: Mexico

*Note: The facility contemplated herein is being filed contingently with an application for K220FR, Simi Valley, CA according to the guidelines of 47 C.F.R. 73.3517(e). The proposed contingent facilities are marked with a "P" following the call sign.

Compliance with C.F.R. 74.1204

The proposed FM Translator is located within the protected 60 dBu contour of second adjacent channel station KRRL, channel 222B, Los Angeles, 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 K220HC.P:	250 watts
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The proposed COR for K220HC.P:	19 meters
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KRRL F(50/50) contour at proposed site:	90 dBu
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The F(50/10) contour of proposed K220HC.P	130 dBu
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By taking into account the antenna vertical elevation pattern for the Scala CLFM-V 1 bay, it has been determined that based on the height of the antenna, the signal is predicted to not reach the ground or any nearby occupied structure (see Exhibit 13-A1).

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
K220HC.P
Studio City, CA

ERP (kw): 0.25
Height of Antenna above Ground (m): 19
Translator's IX Contour: 129.4
Antenna Type: Scala CL-V

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	37.5811	19.000
5	0.980	0.2401	36.8295	15.790
10	0.950	0.2256	35.7021	12.800
15	0.895	0.2003	33.6351	10.295
20	0.820	0.1681	30.8165	8.460
25	0.735	0.1351	27.6221	7.326
30	0.645	0.1040	24.2398	6.880
35	0.563	0.0791	21.1394	6.875
40	0.470	0.0552	17.6631	7.646
45	0.360	0.0324	13.5292	9.433
50	0.250	0.0156	9.3953	11.803
55	0.155	0.0060	5.8251	14.228
60	0.085	0.0018	3.1944	16.234
65	0.045	0.0005	1.6912	17.467
70	0.020	0.0001	0.7516	18.294
75	0.010	0.0000	0.3758	18.637
80	0.010	0.0000	0.3758	18.630
85	0.010	0.0000	0.3758	18.626
90	0.010	0.0000	0.3758	18.624

Compliance with C.F.R. 74.1204

The proposed FM Translator is located within the protected 60 dBu contour of second adjacent channel station KUSC, channel 218B, Los Angeles, 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 K220HC.P:	250 watts
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The proposed COR for K220HC.P:	19 meters
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KUSC F(50/50) contour at proposed site:	89.4 dBu
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The F(50/10) contour of proposed K220HC.P	129.4 dBu
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By taking into account the antenna vertical elevation pattern for the Scala CLFM-V 1 bay, it has been determined that based on the height of the antenna, the signal is predicted to not reach the ground or any nearby occupied structure (see Exhibit 13-B1).

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

EXHIBIT 13 - B1
74.1204(d) Showing
K220HC.P
Studio City, CA

ERP (kw): 0.25
Height of Antenna above Ground (m): 19
Translator's IX Contour: 130
Antenna Type: Scala CL-V

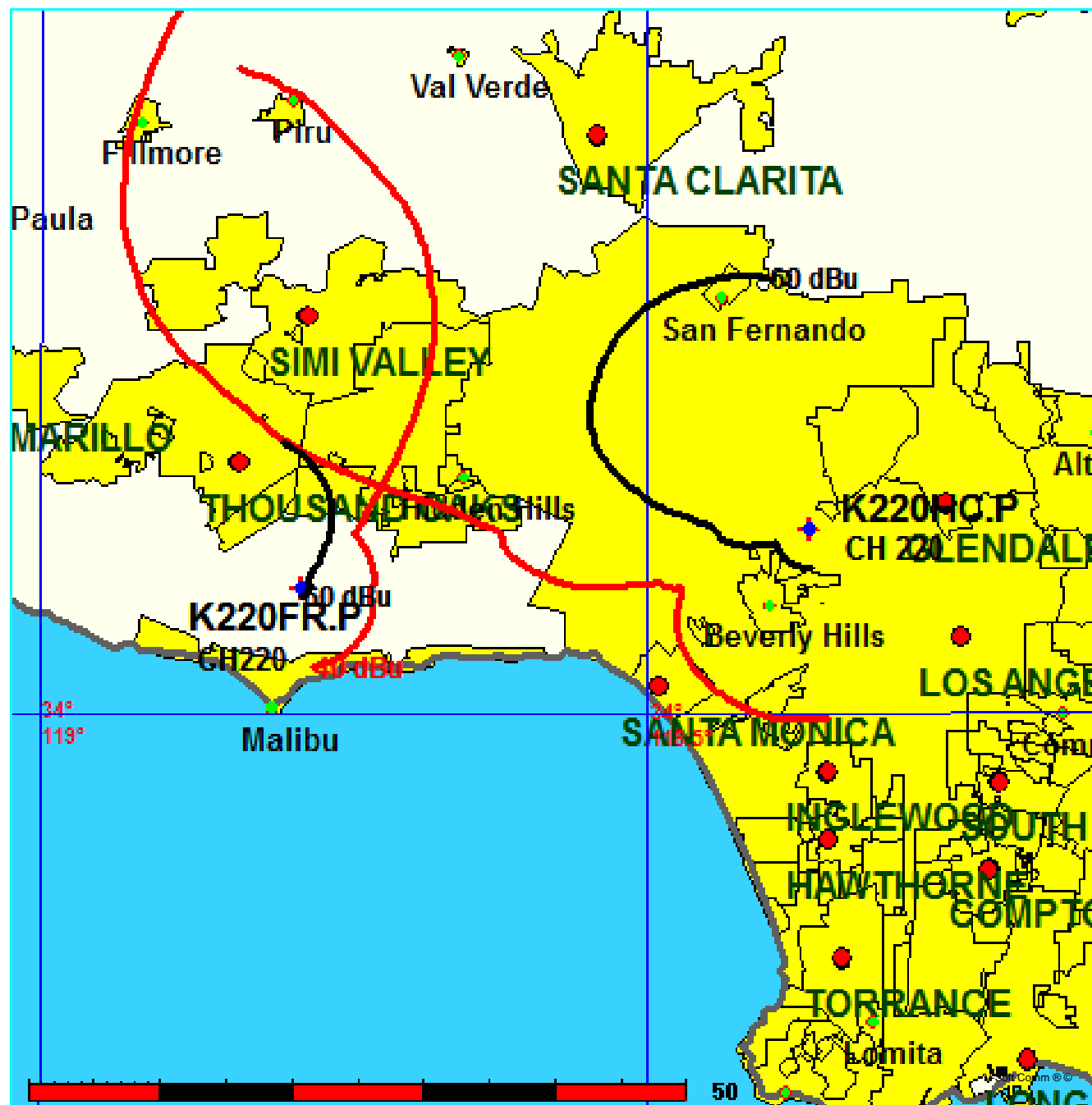
<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna RF</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Ground (m)</u>
0	1.000	0.2500	35.0728	19.000
5	0.980	0.2401	34.3713	16.004
10	0.950	0.2256	33.3191	13.214
15	0.895	0.2003	31.3901	10.876
20	0.820	0.1681	28.7597	9.164
25	0.735	0.1351	25.7785	8.106
30	0.645	0.1040	22.6219	7.689
35	0.563	0.0791	19.7284	7.684
40	0.470	0.0552	16.4842	8.404
45	0.360	0.0324	12.6262	10.072
50	0.250	0.0156	8.7682	12.283
55	0.155	0.0060	5.4363	14.547
60	0.085	0.0018	2.9812	16.418
65	0.045	0.0005	1.5783	17.570
70	0.020	0.0001	0.7015	18.341
75	0.010	0.0000	0.3507	18.661
80	0.010	0.0000	0.3507	18.655
85	0.010	0.0000	0.3507	18.651
90	0.010	0.0000	0.3507	18.649

Exhibit 13-C
Contingent proposed K220FR relationship

FMCommander Single Allocation Study - 03-22-2018 - FCC NGDC 30 Sec
K220HC.P's Overlaps (In= 26.5 km, Out= 15.98 km)

K220HC.P CH 220 D DA
Lat= 34 07 34.0, Lng= 118 22 03.0
0.25 kW 262.8 m HAAT, 469 m COR
Prot.= 60 dBu, Intef.= 40 dBu

K220FR CH 220 D DA
Lat= 34 05 09.0, Lng= 118 47 06.0
0.01 kW 606.5 m HAAT, 870 m COR
Prot.= 60 dBu, Intef.= 40 dBu



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Exhibit 13-C

Studio City, CA

K220HC.P vs. K220FR.P

03-22-2018 Terrain Data: FCC NGDC 30 Sec FMOver Analysis

K220FR.P

Channel = 220D
Max ERP = 0.01 kW
RCAMSL = 870 m
N. Lat. 34 05 09.0
W. Lng. 118 47 06.0
Protected
60 dBu

K220HC.P

Channel = 220D
Max ERP = 0.25 kW
RCAMSL = 469 m
N. Lat. 34 07 34.0
W. Lng. 118 22 03.0
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
353.0	000.0061	0484.6	010.8	279.1	000.0702	0159.0	040.3	39.72	
354.0	000.0059	0486.0	010.7	279.0	000.0699	0158.4	040.1	39.76	
355.0	000.0057	0487.2	010.6	278.9	000.0697	0157.8	039.9	39.81	
356.0	000.0055	0487.7	010.5	278.8	000.0692	0156.7	039.7	39.83	
357.0	000.0053	0486.0	010.4	278.7	000.0687	0155.5	039.5	39.83	
358.0	000.0051	0485.0	010.3	278.6	000.0682	0154.3	039.3	39.82	
359.0	000.0049	0485.8	010.1	278.5	000.0677	0153.1	039.1	39.82	
000.0	000.0048	0486.5	010.0	278.3	000.0672	0151.8	038.9	39.81	
001.0	000.0046	0485.6	009.9	278.2	000.0665	0150.0	038.7	39.75	
002.0	000.0044	0481.4	009.7	278.0	000.0657	0147.9	038.5	39.67	
003.0	000.0042	0477.2	009.6	277.7	000.0648	0145.5	038.3	39.57	
004.0	000.0040	0475.3	009.4	277.5	000.0641	0143.2	038.2	39.47	
005.0	000.0038	0474.9	009.3	277.3	000.0633	0140.8	038.0	39.36	
006.0	000.0036	0475.3	009.1	277.1	000.0625	0138.1	037.8	39.23	
007.0	000.0035	0475.4	009.0	276.9	000.0616	0135.2	037.7	39.07	
008.0	000.0033	0475.7	008.8	276.6	000.0606	0132.0	037.5	38.88	
009.0	000.0031	0477.0	008.7	276.4	000.0596	0128.6	037.4	38.68	
010.0	000.0030	0477.5	008.5	276.1	000.0586	0125.2	037.2	38.47	