

Educational Media Foundation

5700 West Oaks Boulevard ♦ Rocklin ♦ California ♦ 95765

Exhibit 13

Auburn, CA

Channel Study

REFERENCE CH# 255D - 98.9 MHz, Pwr= 0.004 kW, HAAT= 139.8 M, COR= 539 M DISPLAY DATES
38 55 52.0 N. Average Protected F(50-50)= 5.4 km DATA 08-19-13
121 03 28.0 W. Omni-directional SEARCH 08-22-13

CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap	*OUT* in km)
253B Sacramento	KRXQ	LIC	CN CA	186.3 6.2	31.61 BLH19931005KB	38 38 53.0 121 05 51.0	50.000 151	5.3 335	59.8 Entercom Sacramento	19.1	-28.5*<
255D Auburn	1551410	APP	C CA	0.0 0.0	0.00 BNPFT20030317HDB	38 55 52.0 121 03 28.0	0.004	9.1 540	2.9 Educational Media Foundati	-12.0*<	-11.9*<
255D Clarksville	K256AG	CP	DV CA	186.3 6.2	31.61 BPFT20130327AGM	38 38 53.0 121 05 51.0	0.250	7.0 316	2.1 Educational Media Foundati	17.4	4.8
256B1 Williams	KARA	LIC	NCX CA	295.1 114.7	72.59 BLED20080718ARA	39 12 20.0 121 49 09.0	0.550 607	60.6 657	46.1 Educational Media Foundati	5.2	14.8
258A Citrus Heights	KLVB	LIC	CX CA	185.0 5.0	32.19 BLED20080402ACU	38 38 32.0 121 05 25.0	5.100 109	2.5 295	25.7 Educational Media Foundati	22.6	6.3
255A Columbia	KCVR-FM	LIC	CN CA	148.6 329.1	116.02 BLH19960509KC	38 02 15.0 120 22 05.0	6.000 100	99.6 818	38.1 Entravision Holdings, Llc	10.5	58.0
256D Clarksville	K256AG	LIC	DV CA	186.3 6.2	31.61 BLFT20090326ACJ	38 38 53.0 121 05 51.0	0.010 143	5.7 316	3.9 Educational Media Foundati	18.7	17.2
255C2 Chester	KWLU	LIC	NCX CA	1.3 181.3	144.61 BLED20070725AAN	40 14 00.0 121 01 11.0	1.000 754	122.5 2274	50.3 Educational Media Foundati	19.5	85.8
255B San Francisco	KSOL	LIC	C CA	223.3 42.5	178.56 BLH19990723KF	37 45 19.0 122 27 06.0	6.100 409	128.3 440	66.5 Tms License California, In	42.5	74.6
256C2 Gardnerville-minden	KKFT	LIC	NCX NV	72.2 253.1	122.50 BLH20110421AAJ	39 15 34.0 119 42 21.0	1.800 612	74.2 2277	49.3 The Evans Broadcasting Com	44.1	67.3
254D Oroville	K254BF	LIC	V CA	336.6 156.4	87.20 BLFT20090121AAG	39 39 04.0 121 27 43.0	0.010 449	19.7 926	12.8 Calvary Chapel Of Twin Fal	62.7	67.6

Terrain database is 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.

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.

< = Contour Overlap

Compliance with C.F.R. 74.1204

The proposed FM Translator is located within the protected 60 dBu contour of second adjacent channel station KRXQ, channel 253B, Sacramento, 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 Auburn.P:	0.004 watts
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The proposed COR for Auburn.P:	30 meters
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KRXQ F(50/50) contour at proposed site:	68.4 dBu
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The F(50/10) contour of proposed Auburn.P	108.4 dBu
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By taking into account the antenna vertical elevation pattern for the Jampro JLCP 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
Auburn.P
Auburn, CA

ERP (kw): 0.004
Height of Antenna above Ground (m): 30
Translator's IX Contour: 108.4
Antenna Type: JLCP-1

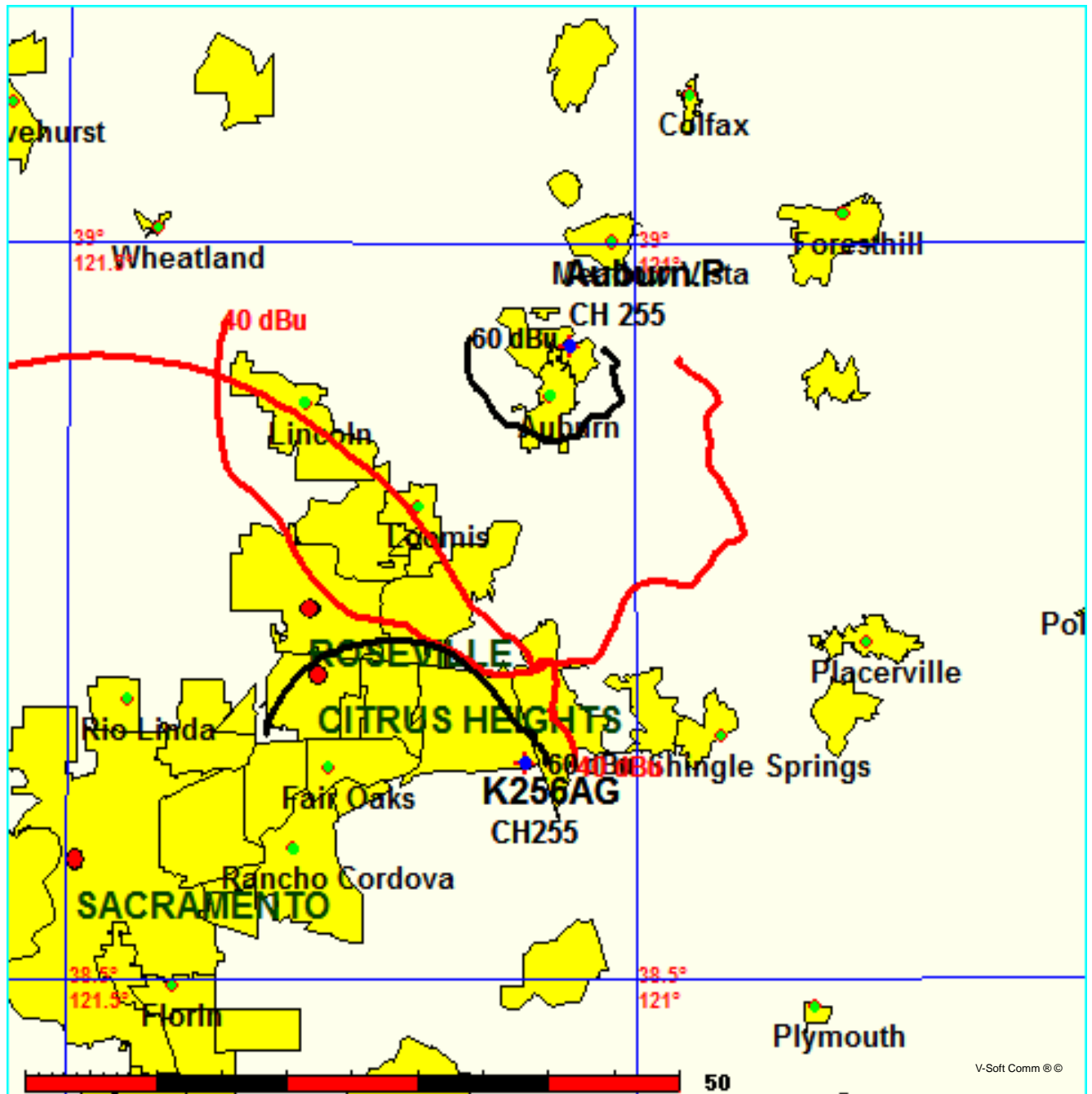
<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna RF</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Ground (m)</u>
0	1.000	0.0040	53.3372	30.000
5	0.994	0.0040	53.0172	25.379
10	0.975	0.0038	52.0037	20.970
15	0.940	0.0035	50.1369	17.024
20	0.910	0.0033	48.5368	13.399
25	0.880	0.0031	46.9367	10.164
30	0.840	0.0028	44.8032	7.598
35	0.770	0.0024	41.0696	6.443
40	0.710	0.0020	37.8694	5.658
45	0.650	0.0017	34.6692	5.485
50	0.600	0.0014	32.0023	5.485
55	0.520	0.0011	27.7353	7.281
60	0.450	0.0008	24.0017	9.214
65	0.380	0.0006	20.2681	11.631
70	0.320	0.0004	17.0679	13.961
75	0.250	0.0003	13.3343	17.120
80	0.180	0.0001	9.6007	20.545
85	0.140	0.0001	7.4672	22.561
90	0.010	0.0000	0.5334	29.467

Exhibit 13-B

FMCommander Single Allocation Study - 08-22-2013 - NGDC 30 SEC
Auburn.P's Overlaps (In= 17.4 km, Out= 4.79 km)

Auburn.P CH 255 D
Lat= 38 55 52.0, Lng= 121 03 28.0
0.004 kW 139.8 M HAAT, 539 M COR
Prot.= 60 dBu, Intef.= 40 dBu

K256AG CH 255 D DA BPFT20130327AGM
Lat= 38 38 53.0, Lng= 121 05 51.0
0.25 kW 0 M HAAT, 316 M COR
Prot.= 60 dBu, Intef.= 40 dBu



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Exhibit 13-B1

Auburn, CA

Auburn.P vs. K256AG

08-22-2013 Terrain Data: NGDC 30 SEC FMOver Analysis

K256AG BPFT20130327AGM

Auburn.P

Channel = 255D
Max ERP = 0.25 kW
RCAMSL = 316 M
N. Lat. 38 38 53.0
W. Lng. 121 05 51.0
Protected
60 dBu

Channel = 255D
Max ERP = 0.004 kW
RCAMSL = 539 M
N. Lat. 38 55 52.0
W. Lng. 121 03 28.0
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
310.0	000.0740	0223.1	014.2	212.7	000.0040	0258.2	026.5	38.88	
311.0	000.0699	0221.6	014.0	212.1	000.0040	0256.0	026.3	38.95	
312.0	000.0658	0219.8	013.7	211.5	000.0040	0254.0	026.1	39.02	
313.0	000.0620	0217.9	013.5	210.8	000.0040	0252.3	025.9	39.09	
314.0	000.0582	0215.9	013.2	210.2	000.0040	0251.3	025.7	39.18	
315.0	000.0545	0213.8	012.9	209.5	000.0040	0251.4	025.6	39.29	
316.0	000.0510	0211.5	012.7	208.7	000.0040	0252.3	025.4	39.41	
317.0	000.0476	0209.1	012.4	208.0	000.0040	0253.7	025.3	39.55	
318.0	000.0443	0206.6	012.1	207.2	000.0040	0255.2	025.2	39.67	
319.0	000.0411	0204.3	011.8	206.5	000.0040	0256.4	025.1	39.77	
320.0	000.0380	0202.3	011.6	205.7	000.0040	0257.0	025.0	39.85	
321.0	000.0342	0200.5	011.2	204.8	000.0040	0257.1	025.0	39.88	
322.0	000.0306	0199.2	010.9	204.0	000.0040	0256.5	025.0	39.88	
323.0	000.0272	0198.4	010.6	203.1	000.0040	0255.9	025.0	39.86	
324.0	000.0240	0197.9	010.3	202.2	000.0040	0255.7	025.0	39.85	
325.0	000.0210	0197.6	009.9	201.4	000.0040	0256.1	025.0	39.83	
326.0	000.0182	0197.1	009.6	200.5	000.0040	0257.1	025.1	39.82	
327.0	000.0156	0196.1	009.2	199.5	000.0040	0258.3	025.2	39.78	
328.0	000.0132	0194.8	008.7	198.6	000.0040	0259.6	025.3	39.73	
329.0	000.0110	0193.6	008.3	197.6	000.0040	0261.8	025.5	39.68	
330.0	000.0090	0192.7	007.8	196.6	000.0040	0265.3	025.7	39.64	
331.0	000.0077	0192.1	007.5	195.9	000.0040	0268.5	025.8	39.65	
332.0	000.0066	0191.7	007.2	195.2	000.0040	0271.0	026.0	39.63	
333.0	000.0055	0191.5	006.8	194.5	000.0040	0272.3	026.2	39.55	
334.0	000.0045	0191.3	006.5	193.8	000.0040	0272.4	026.3	39.42	
335.0	000.0036	0191.0	006.1	193.1	000.0040	0271.7	026.6	39.25	
336.0	000.0028	0190.5	005.7	192.4	000.0040	0271.2	026.8	39.06	
337.0	000.0021	0190.1	005.3	191.7	000.0040	0271.0	027.1	38.85	
338.0	000.0015	0189.8	004.8	191.0	000.0040	0269.2	027.5	38.56	
339.0	000.0010	0189.2	004.2	190.2	000.0040	0266.2	027.9	38.19	
340.0	000.0006	0188.5	003.6	189.5	000.0040	0262.6	028.4	37.77	