

Educational Media Foundation

5700 West Oaks Boulevard ♦ Rocklin ♦ California ♦ 95765

Exhibit 13

Louisville, KY

Channel Study

REFERENCE		CH# 251D - 98.1 MHz, Pwr= 0.25 kW, HAAT= 77.6 M, COR= 255 M								DISPLAY DATES	
38 09 54.0 N.		Average Protected F(50-50)= 11.4 km								DATA	12-03-15
85 35 50.0 W.		Omni-directional								SEARCH	12-03-15
CH CITY	CALL	TYPE STATE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
251C1 Lexington	WBUL-FM	LIC	CX KY	97.8 278.5	101.60 BMLH20031218ACF	38 02 07.0 84 27 02.0	100.000 171	160.1 467	62.4 Citicasters	-69.1*	3.2 Licenses, Inc.
248C1 Louisville	WAMZ	CP	CX KY	65.4 245.4	7.19 BPH20120419AAB	38 11 30.8 85 31 21.2	100.000 169	8.0 367	62.6 Cc	-10.8*	-56.5* Licenses, Llc
248C1 Louisville	WAMZ	LIC	CX KY	226.2 46.1	16.24 BMLH20080402AAP	38 03 50.0 85 43 52.0	100.000 205	8.1 372	63.2 Cc	-3.4	-48.0* Licenses, Llc
250D Louisville	W250BD!	LIC	C KY	0.0 0.0	0.00 BLFT20130809ADH	38 09 54.0 85 35 50.0	0.250 78	16.0 255	11.1 Educational Media Foundati	-27.1	-27.1
252C3 Elizabethtown	WQXE	LIC	NC KY	218.1 37.8	62.52 BLH20010802ABD	37 43 18.0 86 02 10.0	8.500 162	57.2 389	38.6 Skytower Communications-e'	-6.2	7.4
252L1 Charlestown	NEW	CP	IN	349.9 169.8	31.42 BNPL20131113BRN	38 26 37.0 85 39 39.0	0.100 30	198	City Of Charlestown, In	9.5	7.4
250A Salem	WSLM-FM	LIC	CN IN	316.2 135.8	72.72 BLH19920528KA	38 38 07.0 86 10 37.0	3.000 100	35.0 330	23.3 Rebecca L. White	24.7	29.9
251B Princeton	WRAY-FM	LIC	C IN	277.6 96.4	175.73 BLH19990528KC	38 21 25.0 87 35 25.0	50.000 133	134.4 268	61.6 Princeton Broadcasting Co.	27.6	51.6

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, 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.

Exhibit 13-A

FMCommander Single Allocation Study - 12-07-2015 - FCC NGDC 30 Sec
W250BD's Overlaps (In= -69.1 km, Out= 3.23 km)

W250BD CH 251 D

Lat= 38 09 54.0, Lng= 85 35 50.0
0.25 kW 77.6 m HAAT, 255 m COR
Prot.= 60 dBu, Intef.= 40 dBu

WBUL-FM CH 251 C1 BMLH20031218ACF

Lat= 38 02 07.0, Lng= 84 27 02.0
100.0 kW 171 m HAAT, 467 m COR
Prot.= 60 dBu, Intef.= 40 dBu

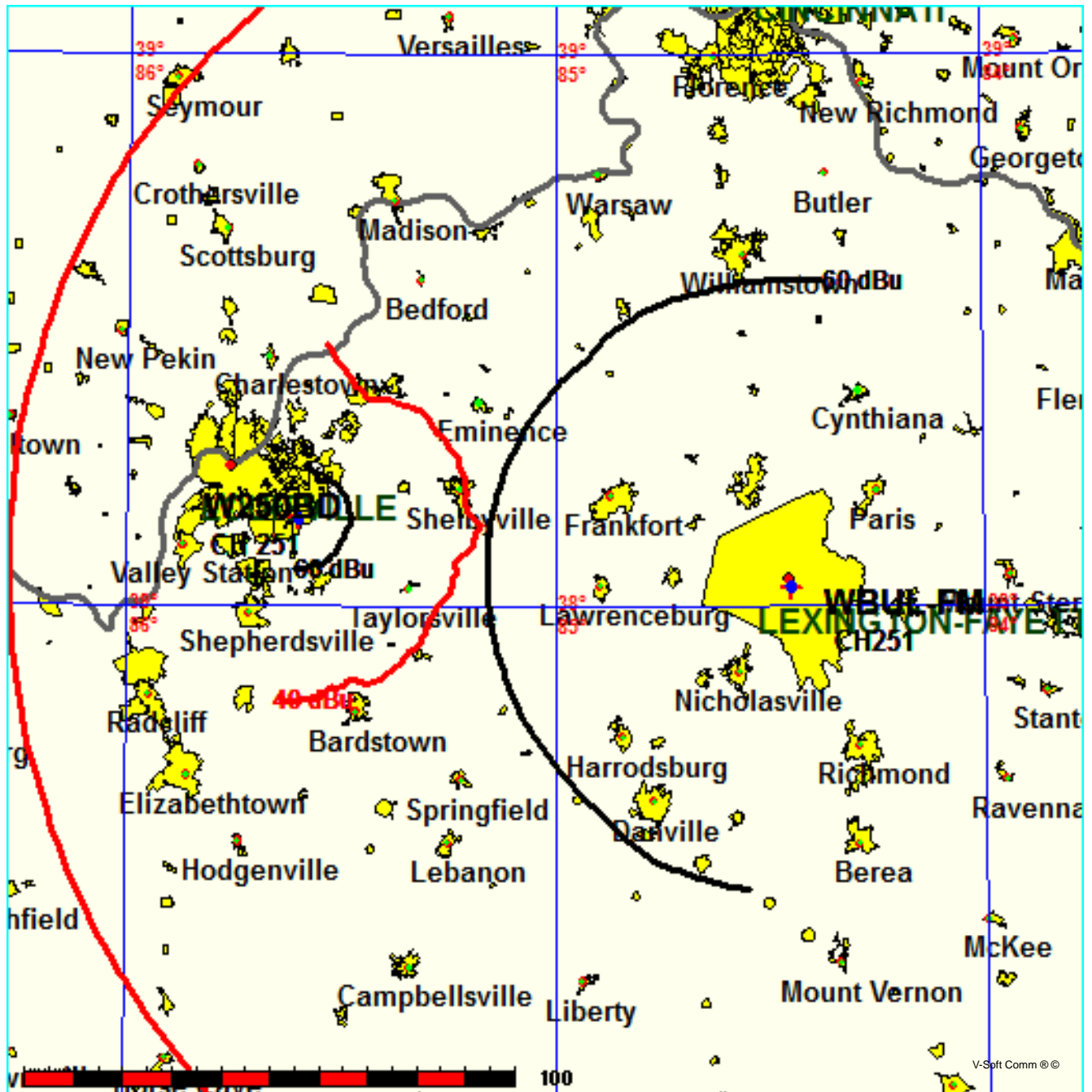


Exhibit 13-B

FMCommander Single Allocation Study - 12-07-2015 - FCC NGDC 30 Sec
W250BD's Overlaps (In= -6.16 km, Out= 7.35 km)

W250BD CH 251 D

Lat= 38 09 54.0, Lng= 85 35 50.0

0.25 kW 77.6 m HAAT, 255 m COR

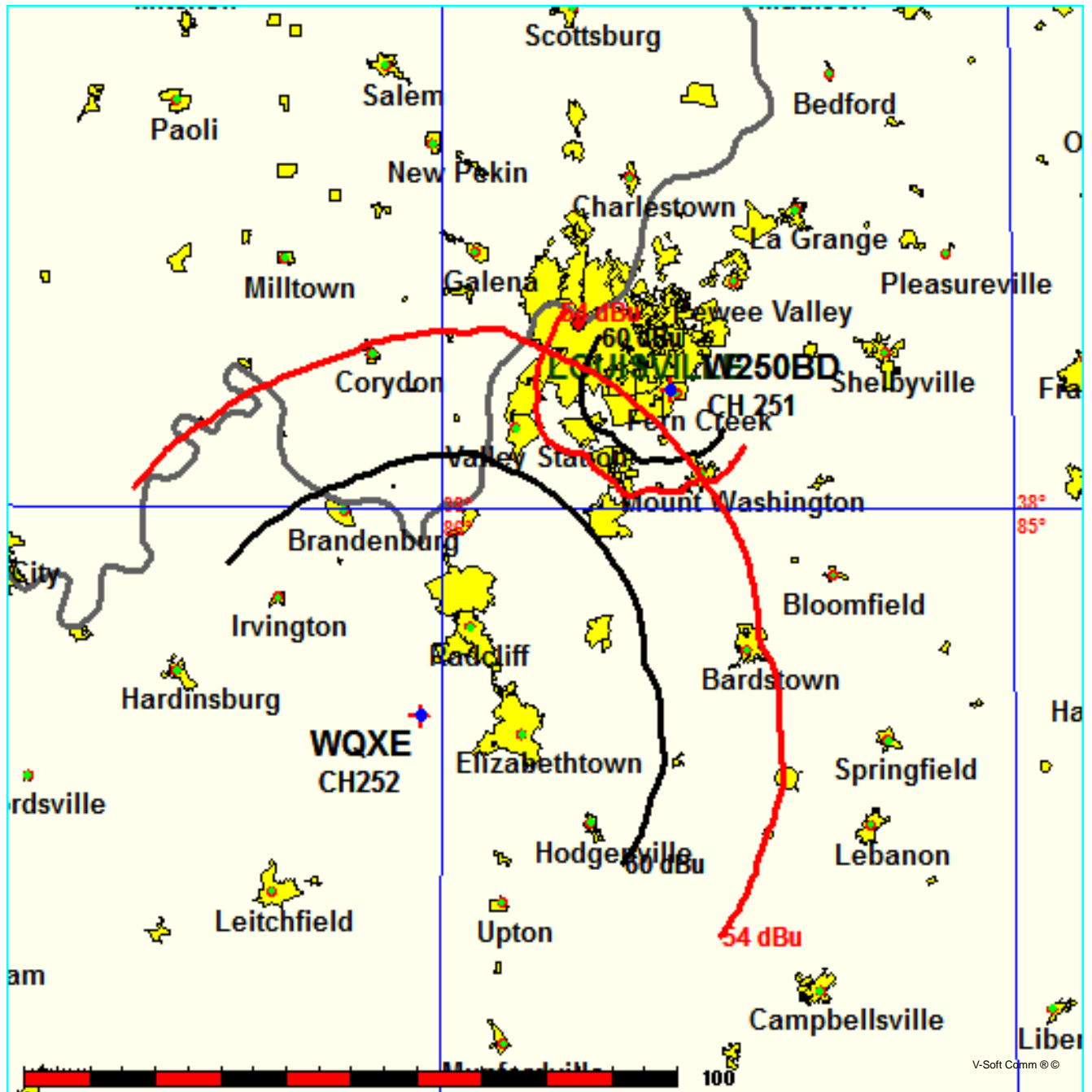
Prot.= 60 dBu, Intef.= 54 dBu

WQXE CH 252 C3 73.215 N BLH20010802ABD

Lat= 37 43 18.0, Lng= 86 02 10.0

8.5 kW 162 m HAAT, 389 m COR

Prot.= 60 dBu, Intef.= 54 dBu



Compliance with C.F.R. 74.1204

The proposed FM Translator is located within the protected 60 dBu contour of third adjacent channel station WAMZ.CP, channel 248C1 Louisville, KY. 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 W250BD.P:	250 watts
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The proposed COR for W250BD.P:	41 meters
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WAMZ.CP F(50/50) contour at proposed site:	101.6 dBu
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The F(50/10) contour of proposed W250BD.P	141.6 dBu
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By taking into account the antenna vertical elevation pattern for the BKG77 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-C1).

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

EXHIBIT 13 - C1
74.1204(d) Showing
W250BD
Louisville, KY

ERP (kw): 0.25
Height of Antenna above Ground (m): 41
Translator's IX Contour: 141.6
Antenna Type: Nicom BKG77

<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	9.2251	41.000
5	0.999	0.2495	9.2159	40.197
10	0.982	0.2411	9.0590	39.427
15	0.954	0.2275	8.8007	38.722
20	0.918	0.2107	8.4686	38.104
25	0.872	0.1901	8.0443	37.600
30	0.818	0.1671	7.5415	37.229
35	0.758	0.1436	6.9926	36.989
40	0.691	0.1194	6.3745	36.903
45	0.616	0.0949	5.6826	36.982
50	0.538	0.0724	4.9631	37.198
55	0.465	0.0541	4.2897	37.486
60	0.391	0.0382	3.6070	37.876
65	0.313	0.0245	2.8874	38.383
70	0.239	0.0143	2.2048	38.928
75	0.176	0.0077	1.6236	39.432
80	0.129	0.0042	1.1900	39.828
85	0.103	0.0027	0.9502	40.053
90	0.104	0.0027	0.9594	40.041

Compliance with C.F.R. 74.1204

The proposed FM Translator is located within the protected 60 dBu contour of third adjacent channel station WAMZ, channel 248C1 Louisville, KY. 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 W250BD.P:	250 watts
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The proposed COR for W250BD.P:	41 meters
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WAMZ F(50/50) contour at proposed site:	87.9 dBu
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The F(50/10) contour of proposed W250BD.P	127.9 dBu
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By taking into account the antenna vertical elevation pattern for the BKG77 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-D1).

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

EXHIBIT 13 - D1
74.1204(d) Showing
W250BD
Louisville, KY

ERP (kw): 0.25
Height of Antenna above Ground (m): 41
Translator's IX Contour: 127.9
Antenna Type: Nicom BKG77

<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	44.6653	41.000
5	0.999	0.2495	44.6206	37.111
10	0.982	0.2411	43.8613	33.384
15	0.954	0.2275	42.6107	29.972
20	0.918	0.2107	41.0027	26.976
25	0.872	0.1901	38.9481	24.540
30	0.818	0.1671	36.5139	22.743
35	0.758	0.1436	33.8563	21.581
40	0.691	0.1194	30.8637	21.161
45	0.616	0.0949	27.5138	21.545
50	0.538	0.0724	24.0299	22.592
55	0.465	0.0541	20.7694	23.987
60	0.391	0.0382	17.4641	25.876
65	0.313	0.0245	13.9802	28.330
70	0.239	0.0143	10.6750	30.969
75	0.176	0.0077	7.8611	33.407
80	0.129	0.0042	5.7618	35.326
85	0.103	0.0027	4.6005	36.417
90	0.104	0.0027	4.6452	36.355