

**Educational Media Foundation**

K221ES, Albertville, MN Facility ID 141314

Minor Modification of BLFT-20070730ABT

**EXHIBIT 13**

April 2013

**Proposed Minor Modification**

The proposed minor modification of K221ES (LIC) specifies a change to fill-in status for KFXN-FM and a new site as indicated below:

	LIC	Proposed Modification
Channel	221	221
Class	D	D
ERP	.250 kW non-da (H&V)	.250 kW non-da (H&V)
Geographical Coordinates	45 14 26 / 93 41 10	45 14 20 / 93 41 14
ASRN	N/A	1062582
Site AMSL	305 m	305 m
Tower AGL	30 m	152 m
Tower AMSL	335 m	457 m
COR AGL	24 m	119 m
COR AMSL	329 m	424 m
HAAT	39 m	134 m

The proposed K221ES 60 dBu contour will be completely encompassed by the 60 dBu of KFXN-FM (see Exhibit 10) and also have overlap with the K221ES licensed 60 dBu contour.

The below listed pages of this exhibit contains information as indicated.

Page 2            Tabulation of distance to 60 dBu contour / HAAT  
Page 3            Proposed & Licensed 60 dBu contour map  
Page 4 - 6        Allocation study

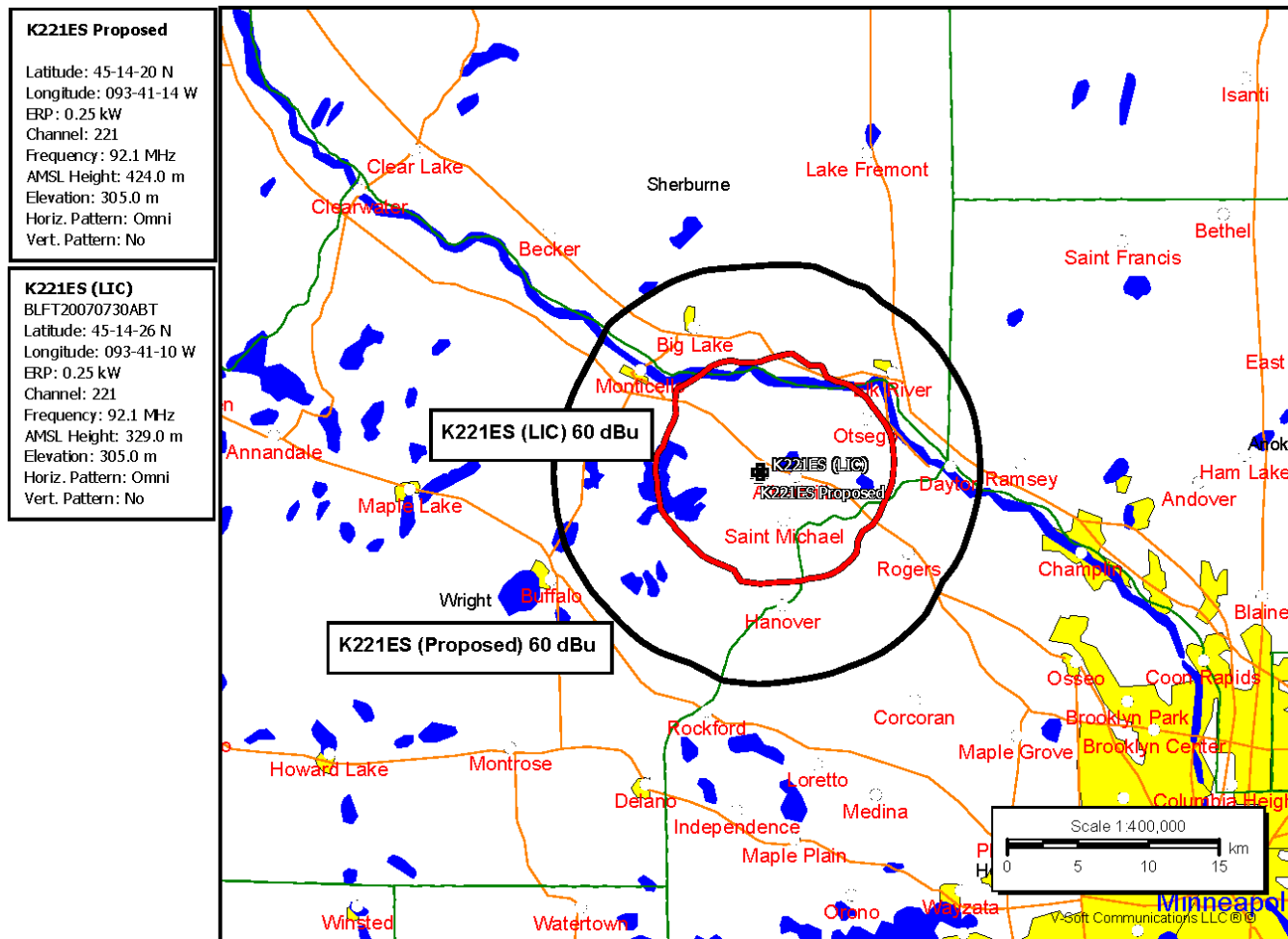
**Tabulation of distance to 60 dBu contour / HAAT**

CH 221      45 14 20 / 93 41 14      .250 kW ERP non-da      424 m COR AMSL      134 m HAAT

Azimuth (deg)	Distance (km)	HAAT (m)
0.0	14.75	131.8
10.0	15.06	136.8
20.0	15.10	137.5
30.0	15.23	139.6
40.0	15.08	137.2
50.0	15.39	142.1
60.0	15.54	144.4
70.0	15.74	147.5
80.0	15.72	147.2
90.0	15.66	146.3
100.0	15.49	143.6
110.0	15.36	141.7
120.0	15.01	136.0
130.0	15.38	141.9
140.0	15.32	141.0
150.0	15.14	138.0
160.0	14.94	134.9
170.0	14.75	131.8
180.0	14.80	132.5
190.0	14.76	131.9
200.0	14.17	121.8
210.0	14.38	125.5
220.0	14.36	125.1
230.0	14.30	124.0
240.0	14.40	125.9
250.0	14.59	129.0
260.0	14.51	127.7
270.0	14.52	127.9
280.0	14.55	128.3
290.0	14.32	124.4
300.0	14.34	124.8
310.0	14.65	130.1
320.0	14.96	135.2
330.0	14.89	134.1
340.0	14.95	135.1
350.0	14.79	132.3

(yellow highlighted values establish average HAAT)

K221ES Proposed & Licensed 60 dBu contours



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**Allocation Study**

CH 221      45 14 20 / 93 41 14      .250 kW ERP non-da      424 m COR AMSL      134 m HAAT

CH CITY	CALL	TYPE STATE	ANT	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap	*OUT* in km)
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**Reference:**

221D Albertville	K221ES	LIC MN	C	25.2 205.2	0.20 BLFT20070730ABT	45 14 26.0 93 41 10.0	0.250 39	23.8 329	7.1 Educational Media Foundati	-38.6*	-56.8
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**1<sup>st</sup>, 2<sup>nd</sup>, & 3<sup>rd</sup> adjacent channel relationships:**

218D Bloomin	K218DK	LIC MN	C	147.7 328.0	50.28 BLFT20021118AAA	44 51 22.0 93 20 49.0	0.216 49	1.0 312	6.8 Refuge Media Group (new Bo	34.0	42.3
219D St. Pa	WMCN	LIC MN	CX	129.1 309.5	52.78 BLED20030213AAT	44 56 19.0 93 10 04.0	0.005 49	1.6 314	3.6 Macalester College	35.9	48.1
220C3 Hinckle	WINH	CP MN	CX	30.4 210.8	101.53 BNPED20071016AHJ93	46 01 28.2 01 21.3	16.000 128	60.9 452	40.6 Minnesota Public Radio	25.4	37.9
220C3 Willma	KBHZ	LIC MN	C	255.5 74.7	98.63 BMLD20050622AAT94	45 00 40.0 53 56.0	25.000 100	58.5 445	37.6 Christian Heritage Broadca	25.6	39.2
220D North Branch	W220DO	LIC MN	C	64.7 245.3	65.22 BLFT20070604ACQ	45 29 10.0 92 55 56.0	0.038 63	9.0 334	6.3 Refuge Media Group (new Bo	40.6	35.5
220D Minneapo	K220JP	LIC MN	DC	135.1 315.4	42.52 BLFT20110914AAO	44 58 03.0 93 18 23.0	0.013 18	1.9 287	1.6 Minnesota Public Radio	25.3	17.8
221A Little F	WYRQ-FM	LIC MN	CN	329.2 148.8	92.15 BLH19800516AF	45 56 57.0 94 17 48.0	3.000 91	75.0 431	23.6 Little Falls Radio Corpora	2.3	18.9
221C2 Menomoni	WMEQ-FM	LIC WI	NCN	102.2 283.6	160.63 BLH20010605ABD	44 54 59.0 91 41 55.0	17.500 219	123.8 512	50.0 Capstar Tx Llc	21.4	59.8
221D Waite	W221BS	LIC MN	C	122.8 303.2	57.37 BLFT20070709AAH	44 57 30.0 93 04 31.0	0.055 11	15.5 287	4.8 Educational Media Foundati	26.9	2.6
221D Waite	W221BS	APP MN	C	114.7 295.2	59.85 BFPT20130328APU	45 00 45.0 92 59 49.0	0.099	19.1 312	5.8 Educational Media Foundati	25.5	3.6
221C3 Wasec	KKOR	LIC MN	CX	169.6 349.9	134.77 BMLH20110414ABA	44 02 44.0 93 23 02.0	9.800 162	105.4 515	40.5 Main Street Broadcasting,	14.6	44.8
221C3 Madi	KLQP	LIC MN	CN	264.0 82.3	198.09 BLH19980706KB	45 01 37.0 96 11 15.0	25.000 91	113.3 415	38.7 Lac Qui Parle Broadcasting	70.4	110.7
223C Golden Va	KQRS-FM	LIC MN	CN	114.3 294.6	48.61 BLH19910814KB	45 03 30.0 93 07 27.0	100.000 315	10.6 593	74.4 Radio License Holding Iii,	22.8	-26.9*<

**I.F. relationships:**

275C0 Minneapo	KMNB<	LIC MN	CN	114.3 294.6	48.61 BLH19910814KD	45 03 30.0 93 07 27.0	100.000 315	0.0 593	0.0 Cbs Radio Media Corporatio	25.0R	23.6M
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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= West Zone, 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), Beamtillt(Y,N,X) "\*"affixed to 'IN' or 'OUT' values = site  
 inside protected contour. < = Station meets FCC minimum distance spacing for its class. < = Contour Overlap

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**Allocation Study**

The proposed minor modification of K221ES will be located within the 60 dBu contour of second adjacent KQRS-FM (LIC), CH 223, Golden Valley, MN.

KQRS-FM signal strength at the K221ES site 71.5 dBu  
 K221ES corresponding interference contour 111.5 dBu  
 Distance to K221ES interference contour 294.1 meters

The below chart demonstrates that by taking into account the Jampro JLCP/2 (non-da) elevation pattern no interference will reach the ground. The closest occupied structure is approximately 50 meters from the tower. There are no structures tall enough to be within the above-ground predicted interference area (see map on page 6). Therefore, EMF respectfully requests a waiver of Section 74.1204(d) based on the showing of no population within the area of predicted interference.

ERP: .250 kW  
 Antenna AGL: 119 m  
 Translator IX contour: 111.5 dBu  
 Antenna: Jampro JLCP/2

Depression Angle From Horizon	Antenna Relative Field	ERP (kW) from the antenna RF	Dist. to Translator IX contour (m)	Height of Translator IX contour above ground (m)
0	1.000	0.2500	295.1005	119.000
5	0.957	0.2290	282.4112	94.386
10	0.834	0.1739	246.1139	76.263
15	0.646	0.1043	190.6349	69.660
20	0.433	0.0469	127.7785	75.297
25	0.212	0.0112	62.5613	92.560
30	0.001	0.0000	0.2951	118.852
35	0.176	0.0077	51.9377	89.210
40	0.308	0.0237	90.8910	60.576
45	0.394	0.0388	116.2696	36.785
50	0.445	0.0495	131.3197	18.403
55	0.438	0.0480	129.2540	13.121
60	0.411	0.0422	121.2863	13.963
65	0.364	0.0331	107.4166	21.648
70	0.314	0.0246	92.6616	31.927
75	0.249	0.0155	73.4800	48.024
80	0.180	0.0081	53.1181	66.689
85	0.140	0.0049	41.3141	77.843
90	0.100	0.0025	29.5101	89.490

**Allocation Study**

Map of K221ES Proposed Site

