

**Channel Study**

REFERENCE CH# 260D - 99.9 MHz, Pwr= 0.25 kW, HAAT= 163.4 M, COR= 877 M DISPLAY DATES  
 44 03 44.0 N. Average Protected F(50-50)= 16.7 km DATA 04-12-16  
 116 54 22.0 W. Omni-directional SEARCH 04-27-16

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*
260C Fairfield	KXML	CP	CX ID	126.8	149.23	43 14 59.0	40.000	187.4	88.6	-57.0*<	1.9
				307.8	BMPH20090121ACC	115 25 59.0	708	2268	Cochise Media Licenses Llc		
258C0 Fruitland	KKOO	LIC	CX ID	97.1	40.55	44 00 58.0	22.000	9.0	86.8	17.2	-47.3*<
				277.5	BLH20100812ACB	116 24 15.0	803	1835	Treasure Valley Broadcasti		
260C1 La Grande	KWRL	LIC	CX OR	329.9	136.69	45 07 21.0	25.000	155.5	67.0	-37.0*<	12.7
				149.3	BLH20090925ABF	117 46 44.0	505	1699	Kwrl, Llc		
262C1 Payette	KQXR	LIC	CX ID	129.4	41.40	43 49 31.0	100.000	10.7	75.2	11.7	-34.9*<
				309.7	BMLH20020715AAX	116 30 29.0	216	1047	Scripps Broadcasting Holdi		
260D Mccall	K260AO	LIC	V ID	30.1	120.92	45 00 00.0	0.010	53.1	14.5	55.7	64.9
				210.7	BLFT20070409ADK	116 08 04.0	458	2194	Calvary Chapel Of Twin Fal		

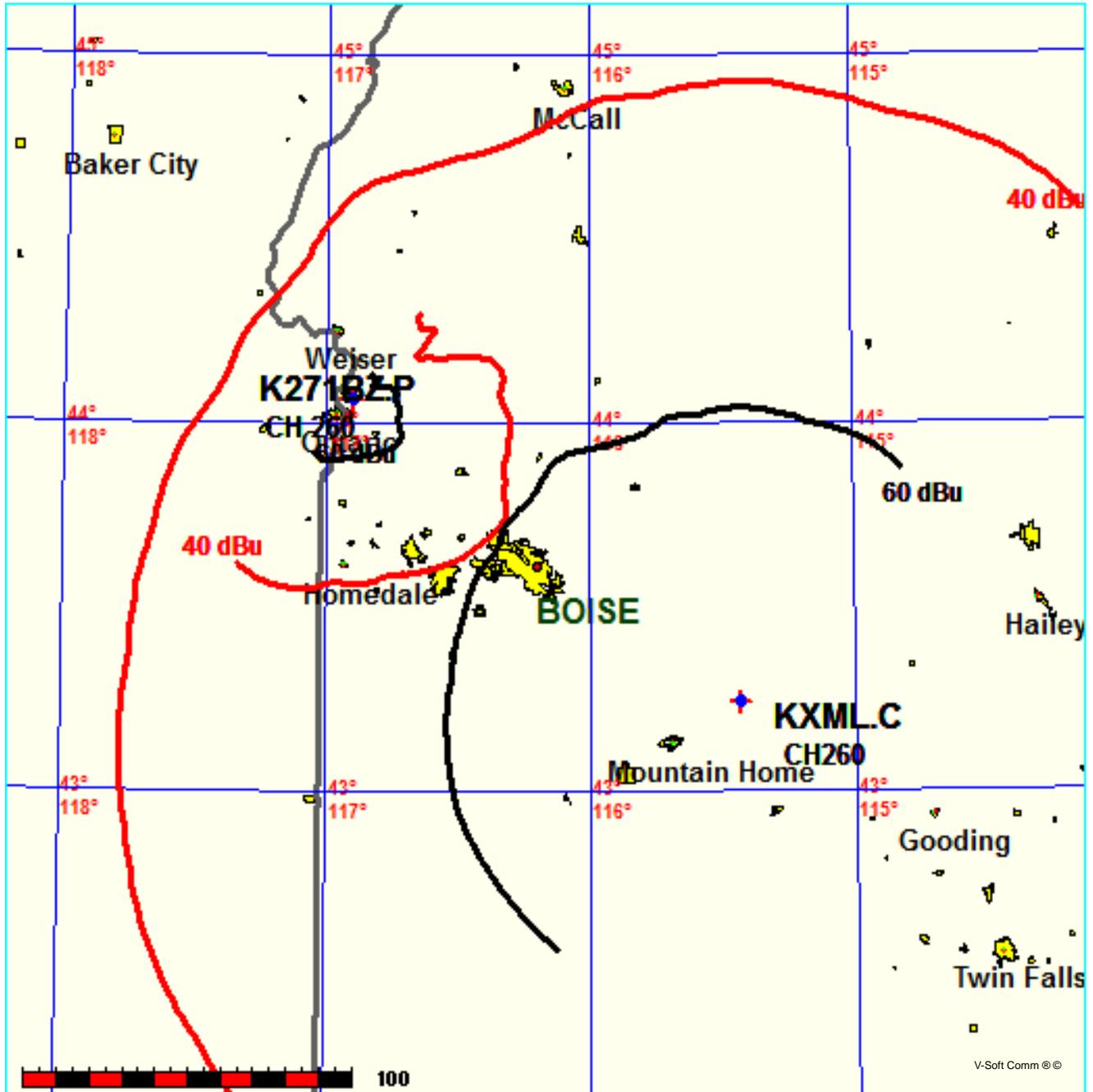
Terrain database is FCC NGDC 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM  
 Contour distances are on direct line to and from reference station. Reference Zone= West Zone, Co to 3rd adjacent.  
 All separation margins (if shown) include rounding. Call signs with 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), Beamtlt(Y,N,X)  
 "\*"affixed to 'IN' or 'OUT' values = site inside restricted contour.  
 < = Contour Overlap  
 Reference station has protected zone issue: AM tower

Educational Media Foundation

FMCommander Single Allocation Study - 04-27-2016 - FCC NGDC 30 Sec  
K271BZ.P's Overlaps (In= -57.04 km, Out= 1.87 km)

K271BZ.P CH 260 D  
Lat= 44 03 44.0, Lng= 116 54 22.0  
0.25 kW 163.4 m HAAT, 877 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

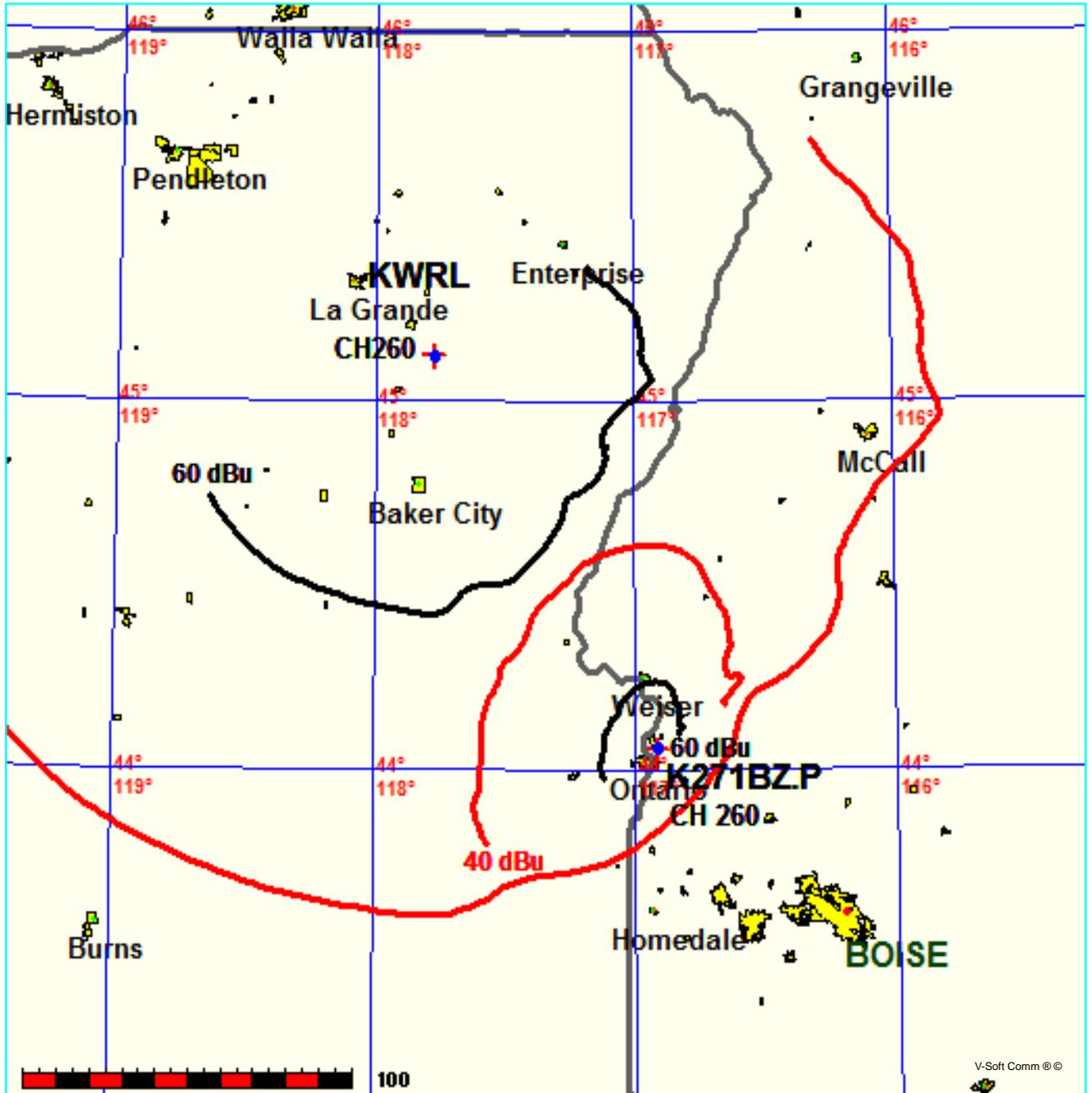
KXML-C CH 260 C BMPH20090121ACC  
Lat= 43 14 59.0, Lng= 115 25 59.0  
40.0 kW 708 m HAAT, 2268 m COR  
Prot.= 60 dBu, Intef.= 40 dBu



FMCommander Single Allocation Study - 04-27-2016 - FCC NGDC 30 Sec  
K271BZ.P's Overlaps (In= -36.98 km, Out= 12.66 km)

K271BZ.P CH 260 D  
Lat= 44 03 44.0, Lng= 116 54 22.0  
0.25 kW 163.4 m HAAT, 877 m COR  
Prot.= 60 dBu, Intef.= 40 dBu

KWRL CH 260 C1 BLH20090925ABF  
Lat= 45 07 21.0, Lng= 117 46 44.0  
25.0 kW 505 m HAAT, 1699 m COR  
Prot.= 60 dBu, Intef.= 40 dBu



**Educational Media Foundation**

5700 W Oaks Blvd  
Rocklin, CA 95765

*Exhibit 13-A  
Weiser, ID*

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

The proposed FM Translator is located within the protected 60dBu contour of second adjacent channel station KOOO, channel 258C0, Fruitland, ID. 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 K271BZ.P:	250 watts
The proposed COR for K271BZ.P:	121 meters
KOOO F(50/50) contour at proposed site:	79.8dBu
The F(50/10) contour of proposed K271BZ.P:	119.8dBu

The predicted distance to the 119.8dbu interfering contour is 113.5 meters. Taking into account the vertical elevation pattern of the Nicom BKG77 single bay antenna and the height above ground of 121M, it has been determined that the interfering contour of 119.8dbu does not reach the ground. As seen in Exhibit 13-A1, the lowest elevation for this interfering contour is 70.6M above ground at a distance of 78.4m from the antenna.

As can be seen in Exhibit 13-A2 there are no surrounding structures which are tall enough to enter the interfering contour within the 113.5m 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 13 - A1  
74.1204(d) Showing  
K271BZ  
Lewistown, ID

ERP (kw): 0.25  
Height of Antenna above Ground (m): 121  
Translator's IX Contour: 119.8  
Antenna Type: Nicom BKG77/1

<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	0.2500	113.4932	121.000
5	0.999	0.2495	113.3797	111.118
10	0.982	0.2411	111.4504	101.647
15	0.954	0.2275	108.2726	92.977
20	0.918	0.2107	104.1868	85.366
25	0.872	0.1901	98.9661	79.175
30	0.818	0.1671	92.7807	74.610
35	0.758	0.1436	86.0279	71.656
40	0.691	0.1194	78.4238	70.590
45	0.616	0.0949	69.9118	71.565
50	0.538	0.0724	61.0594	74.226
55	0.465	0.0541	52.7744	77.770
60	0.391	0.0382	44.3759	82.569
65	0.313	0.0245	35.5234	88.805
70	0.239	0.0143	27.1249	95.511
75	0.176	0.0077	19.9748	101.706
80	0.129	0.0042	14.6406	106.582
85	0.103	0.0027	11.6898	109.355
90	0.104	0.0027	11.8033	109.197

**Educational Media Foundation**

5700 W Oaks Blvd  
Rocklin, CA 95765

*Exhibit 13-A  
Weiser, ID*

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

The proposed FM Translator is located within the protected 60dBu contour of second adjacent channel station KQXR, channel 262C1, Payette, ID. 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 K271BZ.P:	250 watts
The proposed COR for K271BZ.P:	121 meters
KQXR F(50/50) contour at proposed site:	75.5dBu
The F(50/10) contour of proposed K271BZ.P:	115.5dBu

The predicted distance to the 115.5dbu interfering contour is 186.2 meters. Taking into account the vertical elevation pattern of the Nicom BKG77 single bay antenna and the height above ground of 121M, it has been determined that the interfering contour of 115.5dbu does not reach the ground. As seen in Exhibit 13-A1, the lowest elevation for this interfering contour is 38.3M above ground at a distance of 128.7m from the antenna.

As can be seen in Exhibit 13–A2 there are no surrounding structures which are tall enough to enter the interfering contour within the 186.2m 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 13 - A1  
 74.1204(d) Showing  
 K271BZ  
 Lewistown, ID

ERP (kw): 0.25  
 Height of Antenna above Ground (m): 121  
 Translator's IX Contour: 115.5  
 Antenna Type: Nicom BKG77/1

<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	0.2500	186.1959	121.000
5	0.999	0.2495	186.0097	104.788
10	0.982	0.2411	182.8443	89.249
15	0.954	0.2275	177.6308	75.026
20	0.918	0.2107	170.9278	62.539
25	0.872	0.1901	162.3628	52.383
30	0.818	0.1671	152.2151	44.892
35	0.758	0.1436	141.1365	40.047
40	0.691	0.1194	128.6613	38.298
45	0.616	0.0949	114.6966	39.897
50	0.538	0.0724	100.1734	44.263
55	0.465	0.0541	86.5811	50.077
60	0.391	0.0382	72.8026	57.951
65	0.313	0.0245	58.2793	68.181
70	0.239	0.0143	44.5008	79.183
75	0.176	0.0077	32.7705	89.346
80	0.129	0.0042	24.0193	97.346
85	0.103	0.0027	19.1782	101.895
90	0.104	0.0027	19.3644	101.636



Google earth

feet 1000  
meters 400



Yellow Pin Marker

NAD 27

44 03' 44.0" N 116 54' 22.0" W

Red Line Marker: 148m at 160 degrees true north, the direction towards the nearest potentially occupied structure. Note the ground elevation at the nearest potentially occupied structure is over 50m lower than the proposed translator site which adds distance to the margin of headroom for the interfering contour above ground.