

## Channel Study

REFERENCE CH# 230D - 93.9 MHz, Pwr= 0.16 kW, HAAT= 48.7 M, COR= 523 M DISPLAY DATES  
 38 03 21.0 N. Average Protected F(50-50)= 8.1 km DATA 07-16-15  
 97 57 54.0 W. Omni-directional SEARCH 07-16-15

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)
230D Hutchinson	K230BP!	LIC	C KS	0.0	0.00	38 03 21.0 97 57 54.0	0.020	12.1 527	3.8 Educational Media Foundati	-18.4	-24.9
232C2 Kingman	KCVW	LIC	CX KS	176.8 356.8	28.34 BMLED20030319ADA	37 48 03.0 97 56 49.0	50.000 150	5.9 610	51.9 Community Broadcasting, In	13.9	-24.4*
232C1 Kingman	KCVW	CP	NCX KS	128.3 308.6	50.48 BMPED20150122ABD	37 46 26.0 97 30 52.0	100.000 253	9.3 676	68.4 Community Broadcasting, In	31.7	-18.8*
229C1 Salina	KYEZ	LIC	CN KS	17.2 197.4	104.43 BLH6686	38 57 14.0 97 36 29.0	100.000 155	90.1 538	60.3 Mcc Radio, Llc	7.1	33.8
230C1 Dodge City	KZRD	LIC	CN KS	266.9 85.5	207.07 BLH19971203KB	37 55 56.0 100 19 02.0	100.000 246	169.6 1066	70.3 Rocking M Media, Llc	30.1	112.0
228C3 Andover	KDGS	LIC	NCX KS	121.0 301.4	73.69 BLH20141015ACP	37 42 47.0 97 14 51.0	15.000 114	3.9 528	38.1 Entercom License, Llc	60.4	34.7
283C2 Augusta	KFXJ	LIC	ZCX KS	114.4 294.8	67.36 BLH20140903AHM	37 48 15.0 97 16 04.0	47.000 154	0.0 571	0.0 Journal Broadcast Corporat	15.0R	52.4M

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.

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.

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

The proposed FM Translator is located within the protected 60 dBu contour of second adjacent channel station KCVW.C, channel 232C1, Kingman, KS. The proposed facility is also located within the 60 dBu contour of the KCVW license facility, however the interfering contour created versus the CP is greater than the interfering contour versus the license. Therefore, since the translator facility proposed herein clears versus the CP (see below), then it clears versus the license.

According to 74.1204(a)(3), in order to protect second and third adjacent facilities, the interfering contour is a 40db difference in dBu between the two facilities.

The proposed ERP for K230BP.P:	160 watts
The proposed COR for K230BP.P:	54 meters
KCVW.P F(50/50) contour at proposed site:	68.2 dBu
The F(50/10) contour of proposed K230BP.P	108.2 dBu

By taking into account the vertical elevation pattern for the Jampro JLCP 3 bay 0.75 wave spaced antenna, 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  
 K230BP  
 Hutchinson, KS

ERP (kw): 0.16  
 Height of Antenna above Ground (m): 54  
 Translator's IX Contour: 108.2  
 Antenna Type: JLCP-3BAY 0.75 wave spacing

<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	0.1600	345.1914	54.000
5	0.939	0.1411	324.1347	25.750
10	0.769	0.0946	265.4522	7.905
15	0.529	0.0448	182.6063	6.738
20	0.279	0.0125	96.3084	21.061
25	0.054	0.0005	18.6403	46.122
30	0.116	0.0022	40.0422	33.979
35	0.208	0.0069	71.7998	12.817
40	0.234	0.0088	80.7748	2.079
45	0.209	0.0070	72.1450	2.986
50	0.157	0.0039	54.1951	12.484
55	0.088	0.0012	30.3768	29.117
60	0.027	0.0001	9.3202	45.928
65	0.018	0.0001	6.2134	48.369
70	0.047	0.0004	16.2240	38.754
75	0.057	0.0005	19.6759	34.995
80	0.051	0.0004	17.6048	36.663
85	0.045	0.0003	15.5336	38.525
90	0.033	0.0002	11.3913	42.609