

Waiver request - To Second Adjacent Channel Facilities  
 (Based on Lack of Population within Interference Contour)

Applicant seeks a waiver request of CFR 47 §74.1204(a)(3) with regards to protected and interference contour overlap based on a demonstration of no population within the interference contour to the stations of concern.<sup>1</sup>

The following pages within this figure support the demonstration of no population/lack of population within the predicted interference contour when the proposed antenna vertical field pattern is considered.

Station	Received Signal (at proposed site)	D/U Ratio (dB)	Resultant Interference Contour (from proposal)	Interference Contour Distance (free space)
KHNE-FM	80.1 dBu f(50,50)	40	120.1 dBu (free space)	~ 77.9 meters
KCVG	77.8 dBu f(50,50)	40	117.8 dBu (free space)	~ 101.5 meters

As can be determined from the table above the most restrictive interference contour is the 117.8 dBu contour, therefore, demonstration of no population within the proposed interference contour provides protection to both stations.

When the downward radiation characteristic (vertical plan field) of the proposed antenna “Scala GP-FM” is considered the 117.8 dBu contour remains elevated above the surface of the earth.

At all locations within the predicted interference contour radius (101.5 meters) distance, the interference contour remains a minimum of 4.68 meters (or >15 feet) above the ground level.

A Goggle Earth photographic image of the predicted interference contour radius is provided as well as detailed calculations of the interference contour adjusted for the radiation field value of the antenna in the vertical plane.

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<sup>1</sup> In accordance with CFR 47 §74.1204(d), the provisions concerning prohibited overlap will not apply where the area of such overlap lies entirely over water, or an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable.

FIGURE 5

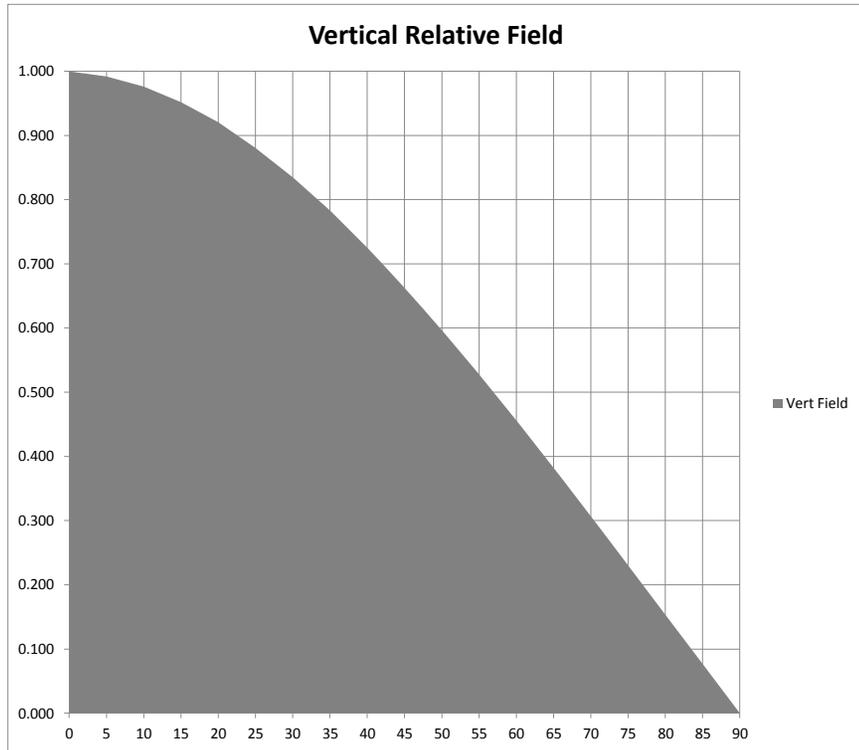
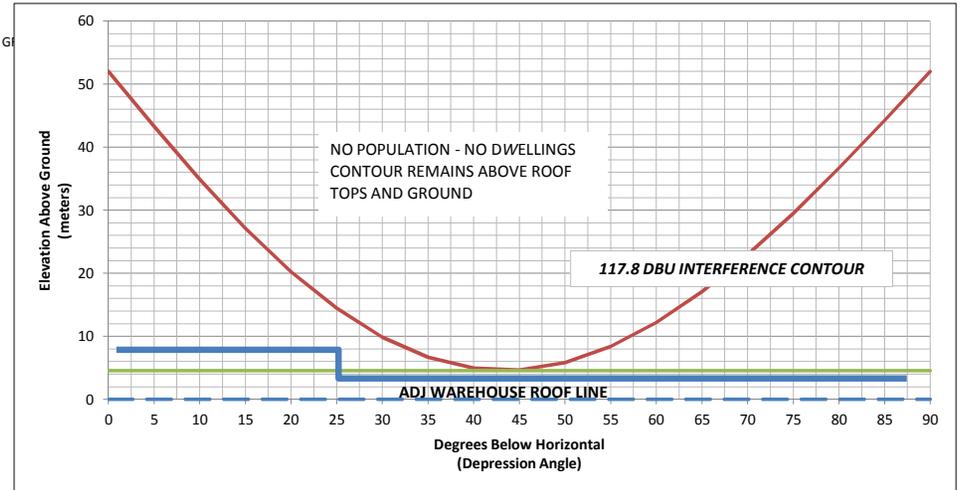
2ND ADJACENT CHANNEL WAIVER  
NO POPULATION WITHIN CONTOUR

**K209CX on Channel 208**

Antenna	
Manufacturer	SCA
Model	GP-FM
Number of Bays	1
Inter-Bay Spacing	1

Center of Radiation:	52	m AGL
Effective Radiated Power (ERP):	125	Watts
Interference Contour FS:	117.8	dBu
E Field Strength:	0.60674	V/m
Free Space Impedance:	377	Ohms
Power Density:	0.00097647	W/m <sup>2</sup>
Maximum Free Space Distance:	100.93	meters

DEPRESSION ANGLE	RELATIVE		ERP WATTS	IN METERS			
	FIELD	POWER		VECTOR LENGTH	HORIZONTAL	VERTICAL	AGL
0	1.0000	1.0000	125.00	100.93	100.93	0.00	52.00
5	0.9920	0.9841	123.01	100.12	99.74	8.73	43.27
10	0.9761	0.9528	119.10	98.52	97.02	17.11	34.89
15	0.9517	0.9057	113.22	96.06	92.78	24.86	27.14
20	0.9204	0.8471	105.89	92.90	87.29	31.77	20.23
25	0.8806	0.7755	96.93	88.88	80.55	37.56	14.44
30	0.8346	0.6966	87.07	84.24	72.95	42.12	9.88
35	0.7831	0.6132	76.66	79.04	64.74	45.33	6.67
40	0.7253	0.5261	65.76	73.20	56.08	47.06	4.94
45	0.6631	0.4397	54.96	66.93	47.32	47.32	4.68
50	0.5970	0.3564	44.55	60.26	38.73	46.16	5.84
55	0.5274	0.2782	34.77	53.23	30.53	43.60	8.40
60	0.4555	0.2075	25.94	45.97	22.99	39.81	12.19
65	0.3818	0.1458	18.22	38.54	16.29	34.92	17.08
70	0.3065	0.0939	11.74	30.94	10.58	29.07	22.93
75	0.2305	0.0531	6.64	23.26	6.02	22.47	29.53
80	0.1540	0.0237	2.96	15.54	2.70	15.31	36.69
85	0.0771	0.0059	0.74	7.78	0.68	7.75	44.25
90	0.0001	0.0000	0.00	0.01	0.00	0.01	51.99



GOOGLE EARTH IMAGE OF 101 METER RADIUS (117.8 DBU INTERFERENCE CONTOUR) FROM TOWER SITE NO TALL BUILDINGS WITHIN AREA. THERE ARE NO OCCUPIED ROOFTOPS THAT PENETRATES VERTICALLY INTO THE INTERFERENCE CONTOUR RADIUS OR AREA, AS THE CONTOUR REMAINS A MINIMUM OF 4.68 METERS ABOVE THE SURFACE.

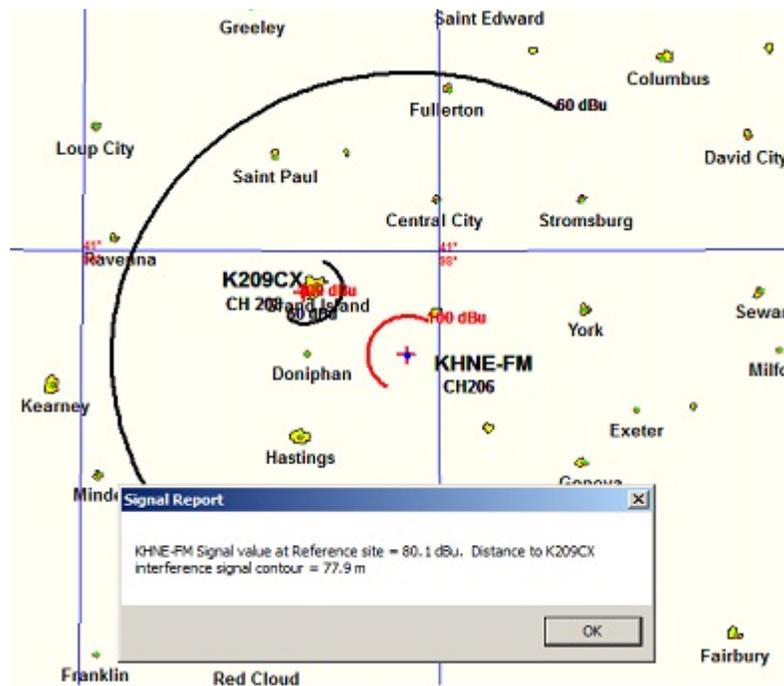


SECOND-ADJACENT CHANNEL WAIVER REQUEST  
to  
Station KHNE-FM (Ch. 206C1) - Licensed Facility

Basis for Waiver Request: No population within predicted interference contour area.

Second-Adjacent Channel Station KHNE-FM (Ch.206C1), the licensed facility, is predicted to have a signal level of 80.1 dBu at the proposed site (the reference site). The D/U (desired to undesired) signal ratio is 40 dBu. Thus, the interfering signal level from this proposal is  $80.1 + 40 = 120.1$  dBu to KHNE-FM.

The map below shows the calculated predicted signal level from KHNE-FM at the proposed translator site, and the predicted interfering contour distance (maximum horizontal distance).



As detailed on the following pages, the interference signal from this proposal does not reach the ground, or any populated or traveled areas and cannot cause interference to any populated areas when the downward radiation characteristics of the specified antenna system are used.

There are no tall building, roof tops, or other occupied spaces within the interference contour from this proposal. Thus no interference is predicted to occur to a populated area, and a grant of this waiver request is in the public interest as no harm would be caused by a grant of the proposal.

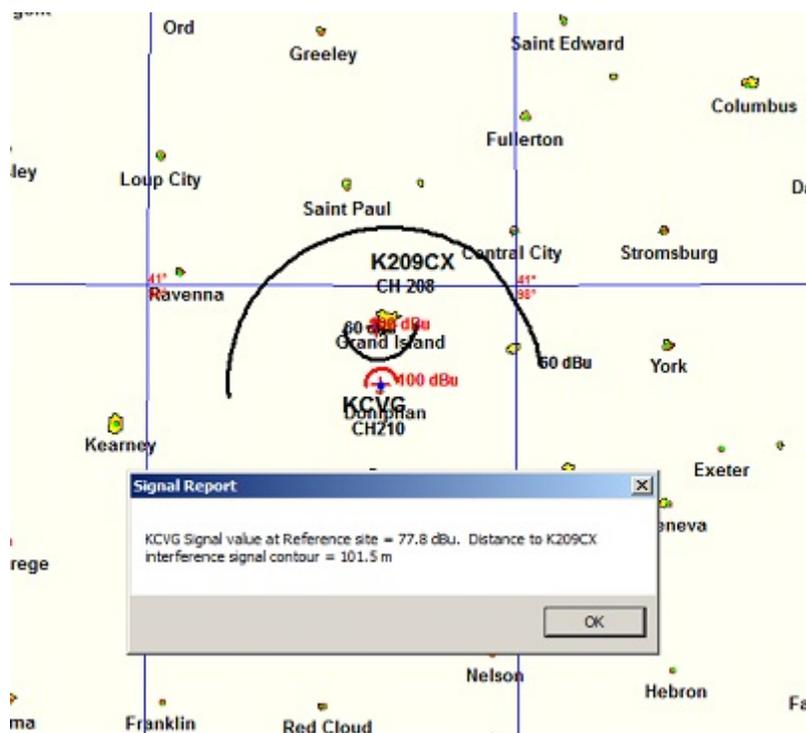
Applicant believes that it has demonstrate that due to lack of population within the interference contour that it is in compliance with the Commission's rules - however, should a waiver of the rules with regards to the second-adjacent station interference contour overlap be necessary it respectfully requests that said waiver be granted. A grant is in the public interest in that it has been demonstrated that no harm will occur to KHNE-FM and that no population is present within the elevated contour.

SECOND-ADJACENT CHANNEL WAIVER REQUEST  
to  
Station KCVG (Ch. 210C3) - Licensed Facility

Basis for Waiver Request: No population within predicted interference contour area.

Second-Adjacent Channel Station KCVG (Ch. 210C3), the licensed facility, is predicted to have a signal level of 77.8 dBu at the proposed site (the reference site). The D/U (desired to undesired) signal ratio is 40 dBu. Thus, the interfering signal level from this proposal is  $77.8 + 40 = 117.8$  dBu to KCVG

The map below shows the calculated predicted signal level from KCVG at the proposed translator site, and the predicted interfering contour distance (maximum horizontal distance).



As detailed on the following pages, the interference signal from this proposal does not reach the ground, or any populated or traveled areas and cannot cause interference to any populated areas when the downward radiation characteristics of the specified antenna system are used.

There are no tall building, roof tops, or other occupied spaces within the interference contour from this proposal. Thus no interference is predicted to occur to a populated area, and a grant of this waiver request is in the public interest as no harm would be caused by a grant of the proposal.

Applicant believes that it has demonstrate that due to lack of population within the interference contour that it is in compliance with the Commission's rules - however, should a waiver of the rules with regards to the second-adjacent station interference contour overlap be necessary it respectfully requests that said waiver be granted. A grant is in the public interest in that it has been demonstrated that no harm will occur to KCVG and that no population is present within the elevated contour.