

Non-Interference Compliance

Regarding Facility id 144473

Channel 224

Description of Exhibit 12 Contents

This exhibit demonstrates that the proposed facility complies with contour overlap and interference protection provisions in all of the applicable rule sections and that this application for a construction permit is in full compliance with 47 C.F.R. § 74.1204.

Let it be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this translator in accordance with 47 C.F.R. § 74.1203.

Page 2 of this exhibit is an explanation of the method used to demonstrate compliance with contour overlap and interference provisions based on 47 C.F.R. § 74.1204(d), which states:

[A]n 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.

Page 3 of this exhibit contains the tabulated data from the interference analysis, which shows all stations whose protected contours come within 50 km of the 34 dBμ F(50,10) contour of the proposed translator. These tabulated values were calculated using data from the FCC's CDBS files and 30 arc second terrain data. The column labeled "Adj" shows the number of channels difference between the entry and the proposed translator. The column labeled "Dist" shows the distance in km. The column labeled "Overlap" shows the area of contour overlap in square kilometers.

Page 4 of this exhibit is a portion of a USGS 1:24,000 scale 7.5 minute quadrangle at full scale with the calculated area of interference overlaid. The sheet includes the quadrangle name and measurement scale at the bottom-left corner (note: "Mt" refers to meters). The area of interference was calculated using the free space equation and 120 radials.

Page 5 of this exhibit is a high resolution aerial photo of the vicinity surrounding the proposed translator's tower site provided by the U.S. Geological Survey's National Aerial Photography Program. It has been included to provide clarification of the nature of the buildings in the vicinity.

Note: The USGS Quadrangle shows two structures within the zone of predicted interference. As can be seen on the aerial photo, both of these structures are communications support buildings for the associated radio communications towers so a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.

Compliance with 47 C.F.R. § 74.1204(d)

All authorized second and third adjacent stations with which the proposed translator has contour overlap are tabulated below. Column four show the station's signal level at the proposed translator's tower site, and column five gives the minimum value within the entire standard interfering contour of the proposed translator (100 dBμ for most classes, 94 for class B, 97 for class B1). The minimum second or third adjacent F(50,50) contour within the proposed translator's standard interfering contour was used to calculate the proposed translator's actual "worst-case" interfering contour.

Application_id	File Number	Callsign	Contour at Tower	Min. Contour
143657	BLH19900111KB	KMXV	82.8	82.8
99052	BLH19870318KG	KMXV	92.6	91.9
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				82.8

FCC 02-244 at Section II.A.5 states that "when demonstrating that 'no actual interference will occur due to . . . other factors,' pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method." The undesired-to-desired ratio for second and third adjacent stations required by § 74.1204(a) is 40 dB. Since the minimum protected contour strength within the proposed translator's standard interference contour is **82.8 dBμ**, this makes the proposed translator's worst-case interfering contour **122.8 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **50.6 m** from the transmit antenna.

The interfering contour of the proposed translator was calculated for 120 radials and plotted on the pertinent portion of a USGS quadrangle (page 4 of this exhibit). As demonstrated on the quadrangle, there are no populated structures or highways within the area of interference (Note: FCC 02-244 at Section II.A.6 states that USGS quadrangles "have been recognized as acceptable to demonstrate lack of population"). Hence, in accordance with 47 C.F.R. § 74.1204(d) and the clarification provided by the FCC in the decision *Re: Living Way Ministries* (FCC 02-244), a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.

Note: The USGS Quadrangle shows two structures within the zone of predicted interference. As can be seen on the aerial photo, both of these structures are communications support buildings for the associated radio communications towers so a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.

Antenna Manufacturer: NIC
Antenna Model: BKG77
CORAGL: 5 m
Maximum ERP: 0.099 kW
Interfering Contour: 122.8 dBμ
Max Int. Contour Distance: 50.6 m

Adjacent Channel Study **For Station K225AW, Facility_id: 144473**

Co-channel through third adjacent:

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
99052	2446	BLH	19870318KG	KMXV	INIFINITY RADIO LICENSE INC.	C0	KANSAS CITY	MO	LIC	100	599	227	3	15.6	0.5908
143657	2446	BLH	19900111KB	KMXV	CBS RADIO LICENSE INC.	C0	KANSAS CITY	MO	LIC	100	392	227	3	15.6	0.5908
994083	2446	BXPH	20040518AAT	KMXV	INFINITY RADIO INC.	C0	KANSAS CITY	MO	CP	36	410	227	3	25	0.5908
216316	6492	BLH	19951113KA	KCCV-FM	BOTT BROADCASTING COMPANY	C3	OLATHE	KS	LIC	8.3	465	222	2	44.5	0
151361	6508	BLH	19900806KC	KAYX	BOTT COMMUNICATIONS, INC.	A	RICHMOND	MO	LIC	2.35	390	223	1	48.5	0
650132	156839	BNPFT	20030317IRS	NEW	COVENANT NETWORK	D	CAMERON	MO	APP	0.25	376	221	3	70.2	0
1119297	78965	BLFT	20060315ABV	K222BH	CALVARY CHAPEL OF TWIN FALLS, INC.	D	ST. JOSEPH	MO	LIC	0.015	347	222	2	76.2	0
173552	36255	BLFT	19920518TB	K225AB	LAKE AREA EDUCATIONAL BROADCASTING FOU	D	KNOB NOSTER	MO	LIC	0.25	324	225	1	76.6	0
1163164	143642	BLFT	20061113AEG	K221DW	EDUCATIONAL MEDIA FOUNDATION	D	TECUMSEH	KS	LIC	0.092	430	221	3	96.9	0
675864	138442	BNPFT	20030828AHR	K224DF	COMMUNITY BROADCASTING, INC.	D	MARSHALL	MO	CP	0.17	342	224	0	97.2	0
151576	4048	BLH	19900814KB	KMOE	BATES COUNTY BROADCASTING COMPANY	A	BUTLER	MO	LIC	4.7	298	221	3	97.4	0
1183545	144472	BLFT	20061207AAE	K226AR	HORIZON CHRISTIAN FELLOWSHIP	D	CHILLICOTHE	MO	LIC	0.14	348	226	2	103.2	0
165569	59246	BLH	19911003KA	KSJQ	EAGLE RADIO, INC.	C2	SAVANNAH	MO	LIC	50	445	224	0	107.4	0
1156398	7946	BLH	20061026ADZ	KMXN	GREAT PLAINS MEDIA, INC.	C2	OSAGE CITY	KS	LIC	42	492.3	225	1	109.2	0
1112386	5206	BLH	20060201BBK	KSDL	BICK BROADCASTING COMPANY	A	SEDALIA	MO	LIC	6	334	222	2	109.6	0
241058	39166	BLH	19970210KA	KTTN-FM	LUEHRS BROADCASTING COMPANY, INC.	C3	TRENTON	MO	LIC	18.5	364	222	2	128.4	0

INDEPENDENCE QUADRANGLE
MISSOURI
7.5 MINUTE SERIES (TOPOGRAPHIC)



