

Non-Interference Compliance

Regarding Facility id 40851

Channel 223

Description of Exhibit 13 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 an aerial photo of the vicinity surrounding the proposed translator's tower site.

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
1203231	BLH20071113ADC	KXBN	0	0
	BNPFT20171201AA			
1773013	R	K226CM	0	0
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				60

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 **60 dBμ**, this makes the proposed translator's worst-case interfering contour **100 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **221.8 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").

Note: The only structures within the zone of predicted interference are unoccupied communications buildings so 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.

Antenna Manufacturer: SCA
Antenna Model: HDCA-5H @ 25°
CORAGL: 9 m
Maximum ERP: 0.01 kW
Interfering Contour: 100 dBμ
Max Int. Contour Distance: 221.8 m

Adjacent Channel Study **For Station K223CN, Facility_id: 40851**

Co-channel through third adjacent:

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Char	Adj	Dist	Overlap
1773013	201596	BNPFT-20171201AAI	K226CM	CANYON MEDIA GROUP, L.L.C.	D	CEDAR CITY	UT	CP	0.25	2531	226	3	11.8	0.0082
1203231	61386	BLH-20071113ADC	KXBN	CCR-ST. GEORGE IV, LLC	C	CEDAR CITY	UT	LIC	95	2432	221	2	25.4	0.0082
1783673	86757	BLFT-20180423AAW	K226BQ	CANYON MEDIA GROUP, LLC	D	ST. GEORGE	UT	LIC	0.099	980	226	3	68.2	0
1311114	178302	BLFTB-20090604ABK	KXBN-FM1	CCR-ST. GEORGE IV, LLC	D	ST. GEORGE	UT	LIC	3.5	962	221	2	68.2	0
1784463	203171	BNPFT-20180507AAI	K223DC	CCR-ST. GEORGE IV, LLC	D	ST. GEORGE	UT	CP	0.099	953	223	0	68.2	0
1749641	140907	BLFT-20170203ACB	K224ES	AIR-FREE WIRELESS, INC.	D	BEAVER	UT	LIC	0.25	2403	224	1	108	0
1641214	27982	BMLH-20140619ABW	KRRN	ENTRAVISION HOLDINGS, LLC	C	MOAPA VALLEY	NV	LIC	100	1173	224	1	168.3	0



