

[Exhibit 13]

## **Non-Interference Compliance**

Regarding Facility id 133545

Channel 298

### **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
1734309	BLFT20160725ABS	K296FM	135.4	135.4
	Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour			<b>135.4</b>

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 **135.4 dBμ**, this makes the proposed translator's worst-case interfering contour **175.4 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **0.2 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: There are no occupied buildings or major roads within the zone of predicted interference 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:	CL-FMV @309°
CORAGL:	15 m
Maximum ERP:	0.265 kW
Interfering Contour:	175.4 dBμ
Max Int. Contour Distance:	0.2 m

# **Adjacent Channel Study** **For Station KENR-FM1, Facility\_id: 133545**

## **Co-channel through third adjacent:**

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Char	Adj	Dist	Overlap
1744316	88404	BLH-20161221ABB	KENR	TOWNSQUARE MEDIA MISSOULA	C1	SUPERIOR	MT	LIC	100	1586	298	0	60.1	3068.75
1734309	155131	BLFT-20160725ABS	K296FM	WESTERN ROCKIES RADIO, INC.	D	MISSOULA	MT	LIC	0.099	1909	296	2	0	0.3426
1807065	166088	BMLH-20190712AAI	KHDV	SHEILA CALLAHAN AND FRIENDS	C3	DARBY	MT	LIC	10	1683	300	2	66.8	0
1732330	83110	BLH-20160629ACE	KIMO	THE MONTANA RADIO COMPANY	C	TOWNSEND	MT	LIC	86	2376	297	1	172.7	0
1787869	202523	BLFT-20180703AAJ	K300DK	BEE BROADCASTING, INC.	D	WHITEFISH	MT	LIC	0.25	1967	300	2	192.4	0
279853	66099	BMLED-19990113KA	KMBI-FM	THE MOODY BIBLE INSTITUTE OF	C	SPOKANE	WA	LIC	64	1573	300	2	250.1	0

## **Intermediate Frequencies (53 and 54 channels difference):**

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Clr
1190915	143897	BLFT-20070621AQO	K245AP	CCR-MISSOULA IV, LLC	D	MISSOULA	MT	LIC	0.25	1114	245	53	8.9	-1.1







