[Exhibit 13]

Non-Interference Compliance

Regarding Facility id 36259 Channel 295

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.

Note: The only structure within the zone of predicted interference is an unoccupied communications building 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
1209237	BLH20071003AAO	KMJK	75.7	75.7
996254	BMLH20040802BEU	WDAF-FM	106.2	104.7
		Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour		**75.7**

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 **75.7 dBµ**, this makes the proposed translator's worst-case interfering contour **115.7 dBµ.** By the free-space equation, this contour is calculated to extend a maximum of **123.4 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 structure within the zone of predicted interference is an unoccupied communications building 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 @ 100°**
CORAGL:	**279 m**
Maximum ERP:	**0.115 kW**
Interfering Contour:	**115.7 dBµ**
Max Int. Contour Distance:	**123.4 m**

Adjacent Channel Study
For Station K295CH, Facility_id: 36259

Co-channel through third adjacent:

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Char	Adj	Dist	Overlap
996254	8609	BMLH-20040802BEU	WDAF-FM	ENTERCOM LICENSE, LLC	C1	LIBERTY	MO	LIC	100	565	293	2	6.7	0.4994
1209237	33713	BLH-20071003AAO	KMJK	CMP HOUSTON-KC, LLC	C1	NORTH KANSAS (	MO	LIC	100	538.6	297	2	36.5	0.4994
1206037	144031	BLFT-20070919ACO	K294BE	CATHOLIC RADIO NETWORK, IN(	D	SAINT JOSEPH	MO	LIC	0.08	347	294	1	91.1	0
1010243	67334	BMLH-20040913ABR	KTPK	ALPHA MEDIA LICENSEE LLC	C	TOPEKA	KS	LIC	100	687	295	0	121.8	0
150710	9929	BLH-19900727KA	KTXY	ZIMMER RADIO OF MID-MISSOUF	C	JEFFERSON CITY	MO	LIC	96	609	295	0	179.4	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
1733666	139583	BLFT-20160816AAG	K241AR	UNIVERSITY OF KANSAS	D	LAWRENCE	KS	LIC	0.25	463	241	54	66.3	56.3

Prepared by Gene Wisniewski
May 10, 2017

INTERIOR - GEOLOGICAL SURVEY, RESTON, VIRGINIA - 1995

ROAD CLASSIFICATION

Primary highway hard surface	Light-duty road, hard or improved surface
Secondary highway hard surface	Unimproved road

Interstate Route · U.S. Route · State Route

QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

1 Parkville
2 North Kansas City
3 Liberty
4 Shawnee
5 Independence
6 Lenexa
7 Grandview
8 Lees Summit

ADJOINING 7.5' QUADRANGLE NAMES

KANSAS CITY, MO-KS

39094-A5-TF-024

1991

PRODUCED BY THE USGS 7062 II SE-SERIES V879

ISBN 0-607-00997-7
9 780607 009972

'Kansas City*; MO,KS'; Scale: 1" = 0.379Mi 610Mt 2,000Ft, 1 Mi = 2.640" , 1 cm = 240Mt


70 yds
© 2017 Microsoft Corporation
© 2010 NAVTEQ
© AND