

## **Non-Interference Compliance**

Regarding Facility id 138304

Channel 267

### **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 structures within the zone of predicted interference are unoccupied communications buildings 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
108999	BLH19880129KD	WBAV-FM	82.5	82.5
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				<b>82.5</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 **82.5 dBμ**, this makes the proposed translator's worst-case interfering contour **122.5 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **83.2 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: The only structures within the zone of predicted interference are unoccupied communications buildings 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:** PSI  
**Antenna Model:** FML-1-DA  
**CORAGL:** 91 m  
**Maximum ERP:** 0.25 kW  
**Interfering Contour:** 122.5 dBμ  
**Max Int. Contour Distance:** 83.2 m

# **Adjacent Channel Study** **For Station W286AV, Facility\_id: 138304**

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

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Char	Adj	Dist	Overlap
108999	6587	BLH-19880129KD	WBAV-FM	WKIS LICENSE LIMITED PARTNE	C0	GASTONIA	NC	LIC	99	552	270	3	27.2	1.3937
1721369	144754	BMPFT-20160129AAI	W264CZ	COMMUNITY PUBLIC RADIO, INC	D	GASTONIA	NC	CP MOD	0.24	488	264	3	27.2	0
1620862	192972	BNPL-20131114BDY	NEW	BELMONT ABBEY COLLEGE	L1	BELMONT	NC	CP	0	244	268	1	47.6	0
1718600	142651	BLFT-20160121AAB	W269CY	EDUCATIONAL MEDIA FOUNDAT	D	MOORESVILLE	NC	LIC	0.25	459	269	2	49.2	0
1571370	147852	BNPFT-20130827AEI	W265CT	RADIO TRAINING NETWORK, INC	D	HICKORY	NC	CP	0.055	352	265	2	53.5	0
1720069	147852	BMPFT-20160128BCI	W265CT	RADIO TRAINING NETWORK, INC	D	HICKORY	NC	APP	0.25	391	265	2	54.7	0
1720104	157753	BPFT-20160129ASC	W224BN	RADIO TRAINING NETWORK, INC	D	HICKORY	NC	APP	0.115	391	267	0	54.7	0
1689307	148869	BMPFT-20150923AM	W268BS	WESTERN NORTH CAROLINA PL	D	TRYON	NC	CP MOD	0.01	994	268	1	61.4	0
1712329	156599	BMPFT-20151209AB	W267BZ	ISOTHERMAL COMMUNITY COLL	D	CHARLOTTE	NC	CP MOD	0.08	236	267	0	69.7	0
1248561	52553	BLH-20080611ABB	WPZS	RADIO ONE OF NORTH CAROLIN	A	INDIAN TRAIL	NC	LIC	5.2	305	265	2	78.7	0
1656080	157988	BLFT-20141028AAE	W264CU	IREDELL BROADCASTING, INC.	D	STATESVILLE	NC	LIC	0.25	369	264	3	83.6	0
1656719	195992	BNPL-20131114BCC	NEW	MONTE CALVARIO FOUNDATION	L1	CHARLOTTE	NC	CP	0	239	267	0	83.6	0
1717179	192101	BLL-20160106AAL	WBWT-LP	QUALITY RADIO PARTNERS, INC	L1	GREENVILLE	SC	LIC	0	353.2	268	1	84.2	0
1698154	141295	BLFT-20151106EQT	W269CW	BIBLE BROADCASTING NETWOR	D	HENDERSONVILL	NC	LIC	0.019	781	269	2	84.8	0
1719358	192101	BPL-20160126ADY	WBWT-LP	QUALITY RADIO PARTNERS, INC	L1	GREENVILLE	SC	CP	0	318.4	268	1	88.1	0
1678535	140160	BNPFT-20150519AAV	W266CP	CLEAR CHANNEL BROADCASTIN	D	CANDLER	NC	CP	0.25	1067	266	1	88.2	0
1235433	318	BLH-20080225ABJ	WROQ	ENTERCOM LICENSE, LLC	C1	ANDERSON	SC	LIC	100	540	266	1	96	0
1718240	156074	BMPFT-20160119AA	W268CL	WESTERN NORTH CAROLINA PL	D	BREVARD	NC	CP MOD	0.01	1170	268	1	102	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
1053881	69436	BLED-20050223ACA	WFAE	UNIVERSITY RADIO FOUNDATIO	C0	CHARLOTTE	NC	LIC	100	544	214	53	79.1	54.1







