

Non-Interference Compliance

Regarding Facility id 153420

Channel 285

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 contains a tabulation of the vertical radiation pattern of the proposed antenna and the minimum ground clearance of the interfering contour based on this pattern.

Pages 4 through 6 include a tabulation of the vertical radiation pattern for the proposed antenna provided by the antenna manufacturer.

Page 7 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 8 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 9 of this exhibit is an aerial photo of the vicinity surrounding the proposed translator's tower site.

Note: The tallest buildings in the zone of predicted interference are 20ft tall. This proposal provides 145m (475.7ft) ground clearance, 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
1246785	BMLH20080521AAQ	WRFQ	155.9	136.5
584316	BLH20011012AAX	WCOO	73	73
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				73

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 **73 dBμ**, this makes the proposed translator's worst-case interfering contour **113 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **66.6 m** from the transmit antenna.

The maximum horizontal plane of the interfering contour was calculated for 120 radials and plotted on the pertinent portion of a USGS quadrangle (page 8 of this exhibit). However, the field strength of the proposed translator's antenna varies with angle of depression from horizontal. The antenna relative fields are tabulated on the following page at 5 degree increments, starting at 5 degrees below horizontal. Antenna relative field strength data was provided and certified by the manufacturer of the proposed antenna. Using a free-space calculation that neglects any loss due to reflection, the vertical ground clearance of the proposed translator's interference contour has been tabulated. As shown on the following page, the area of interference clears the tower ground level (TGL) by **145 m** at the lowest point. The applicant has taken into account USGS quadrangles and relevant aerial photography in stating that no structures, except possibly tower support structures, puncture the area of interference. 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 tallest buildings in the zone of predicted interference are 20ft tall. This proposal provides 145m (475.7ft) ground clearance, 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:	BKG77-2(.85)
CORAGL:	198 m
Maximum ERP:	0.018 kW
Interfering Contour:	113 dBμ
Max Int. Contour Distance:	66.6 m
Min Ground Clearance:	145 m

Depression Angle Below Horizontal	Antenna Relative Field	ERP (watts)	Distance to Interfering Contour from Antenna (m)	Horizontal Distance of Interfering Contour from Tower (m)	Vertical Clearance of Interfering Contour above TGL (m)
5	.974	17.1	64.9	64.6	192.3
10	.902	14.6	60.1	59.2	187.6
15	.787	11.1	52.4	50.6	184.4
20	.639	7.3	42.6	40.0	183.4
25	.468	3.9	31.2	28.3	184.8
30	.285	1.5	19.0	16.4	188.5
35	.100	0.2	6.7	5.5	194.2
40	.079	0.1	5.3	4.0	194.6
45	.242	1.1	16.1	11.4	186.6
50	.366	2.4	24.4	15.7	179.3
55	.514	4.8	34.2	19.6	169.9
60	.617	6.9	41.1	20.6	162.4
65	.692	8.6	46.1	19.5	156.2
70	.751	10.2	50.0	17.1	151.0
75	.787	11.1	52.4	13.6	147.4
80	.800	11.5	53.3	9.3	145.5
85	.799	11.5	53.2	4.6	145.0
90	.787	11.1	52.4	0.0	145.6
Minimum Clearance above TGL:					145 m

TX station: BGK77/2

Site name:

Frequency: 98.00 MHz

Vertical diagram at an azimuth of 0° degrees

Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)
0.0	100.0	778.1	50.0	61.7	295.8	120.0	48.9	185.7
2.0	99.6	771.9	52.0	64.9	328.0	122.0	45.4	160.3
4.0	98.4	753.4	54.0	67.9	358.3	124.0	41.7	135.3
6.0	96.4	723.5	56.0	70.5	387.2	126.0	37.9	111.8
8.0	93.7	683.0	58.0	73.0	415.0	128.0	34.0	89.8
10.0	90.2	633.6	60.0	75.1	438.9	130.0	29.8	69.2
12.0	86.1	576.9	62.0	76.8	458.6	132.0	25.4	50.3
14.0	81.3	514.9	64.0	78.2	475.6	134.0	20.8	33.7
16.0	76.0	448.7	66.0	79.1	486.5	136.0	16.0	19.9
18.0	70.2	383.3	68.0	79.6	492.8	138.0	11.0	9.3
20.0	63.9	317.8	70.0	80.0	498.2	140.0	5.8	2.6
22.0	57.3	255.1	72.0	80.1	499.5	142.0	0.6	0.0
24.0	50.3	197.0	74.0	80.0	498.5	144.0	4.6	1.7
26.0	43.2	145.1	76.0	79.8	495.2	146.0	9.9	7.7
28.0	35.8	100.4	78.0	79.3	489.7	148.0	15.2	18.1
30.0	28.5	63.4	80.0	78.7	482.3	150.0	20.5	32.8
32.0	21.1	34.5	82.0	78.0	473.0	152.0	25.8	51.7
34.0	13.6	14.5	84.0	77.0	461.9	154.0	30.9	74.2
36.0	6.3	3.1	86.0	75.8	447.1	156.0	35.9	100.5
38.0	0.9	0.1	88.0	74.2	428.6	158.0	40.9	130.2
40.0	7.9	4.8	90.0	72.5	409.1	160.0	45.6	162.1
42.0	14.6	16.6	92.0	71.0	391.9	162.0	50.1	195.5
44.0	21.1	34.6	94.0	69.3	373.2	164.0	54.3	229.4
46.0	27.3	58.0	96.0	67.4	353.2	166.0	58.1	262.7
48.0	33.2	85.8	98.0	65.3	332.0	168.0	61.5	294.3
50.0	38.8	117.2	100.0	63.1	309.5	170.0	64.5	323.3
52.0	44.1	151.5	102.0	60.3	283.3	172.0	66.9	348.5
54.0	49.1	187.7	104.0	57.4	256.6	174.0	68.9	369.1
56.0	53.7	224.4	106.0	54.6	232.1	176.0	70.3	384.4
58.0	57.8	260.4	108.0	51.9	209.2	178.0	71.1	393.8

TX station: BGK77/2

Site name:

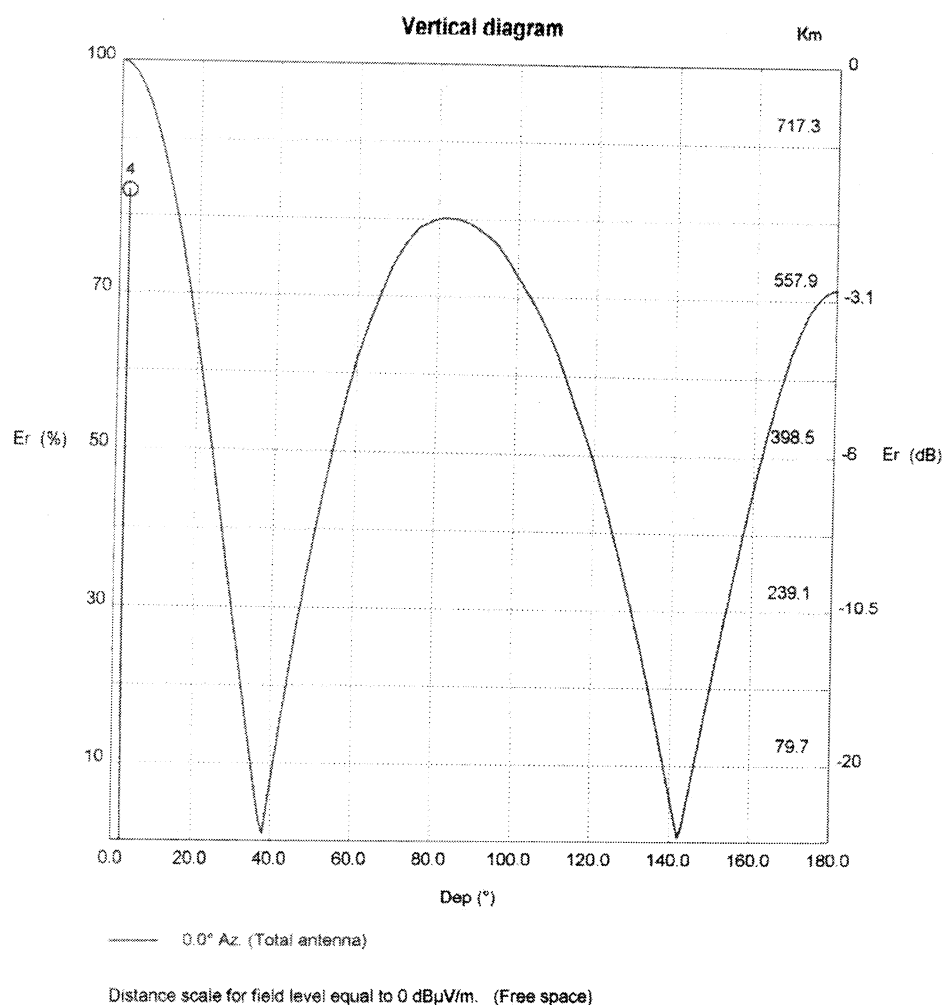
Frequency: 98.00 MHz

Horizontal diagram at 0.0° depres. (Total antenna)

Az (°)	Er (%)	ERP (W)	Az (°)	Er (%)	ERP (W)	Az (°)	Er (%)	ERP (W)
0.0	98.3	778.1	120.0	79.2	505.6	240.0	80.2	518.5
10.0	98.3	778.1	130.0	76.2	468.0	250.0	85.3	565.4
20.0	96.3	778.1	140.0	73.2	431.7	260.0	90.9	666.0
30.0	96.8	786.1	150.0	71.0	406.5	270.0	95.3	731.2
40.0	98.8	786.1	160.0	70.2	397.0	280.0	97.3	762.3
50.0	99.2	792.9	170.0	70.2	397.0	290.0	98.3	778.1
60.0	100.0	805.3	180.0	70.2	397.0	300.0	100.0	805.3
70.0	99.1	791.4	190.0	70.2	397.0	310.0	99.2	792.9
80.0	96.3	746.7	200.0	70.2	397.0	320.0	98.8	786.1
90.0	92.3	685.7	210.0	71.2	408.4	330.0	98.8	786.1
100.0	87.3	613.2	220.0	73.2	431.7	340.0	98.3	778.1
110.0	83.2	558.1	230.0	77.2	480.4	350.0	98.3	778.1

TX station: BGK77/2
Frequency: 98.00 MHz

Site name:



Adjacent Channel Study
For Station W285DV, Facility_id: 153420

Co-channel through third adjacent:

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
1132048	38901	BXLH	20060606AFU	WRFQ	CITICASTERS LICENSES, INC.	C1	MOUNT PLEASANT	SC	LIC	25	161	283	2	0	0.1074
626748	38901	Null	Null	WRFQ	CITICASTERS LICENSES, INC.	C1	MOUNT PLEASANT	SC	USE	0	0	283	2	0	0.1074
1246785	38901	BMLH	20080521AAQ	WRFQ	CITICASTERS LICENSES, INC.	C1	MOUNT PLEASANT	SC	LIC	100	202	283	2	0	0.1074
289582	50729	RM	8474	WCOO	L.M. COMMUNICATIONS II OF SOUTH CAROLIN	C2	KIAWAH ISLAND	SC	USE	0	0	288	3	26.5	0.1074
584316	50729	BLH	20011012AAX	WCOO	L.M. COMMUNICATIONS II OF SOUTH CAROLIN	C2	KIAWAH ISLAND	SC	LIC	50	135	288	3	26.5	0.1074
1192970	150415	BLFT	20070628AAB	W286AY	EDGEWATER BROADCASTING, INC.	D	CHARLESTON	SC	LIC	0.117	36	286	1	20.1	0
1484491	150415	BPFT	20120120AEM	W286AY	EDGEWATER BROADCASTING, INC.	D	CHARLESTON	SC	CP	0.025	68	286	1	31.6	0
289402	40705	Null	Null	WLHH	LOW COUNTRY RADIO, LLC	C3	RIDGELAND	SC	USE	0	0	285	0	110.3	0
200700	40705	BLH	19940705KC	WLHH	LOW COUNTRY RADIO, LLC	C3	RIDGELAND	SC	LIC	16	128	285	0	110.3	0
1345471	6485	BLH	20091216ACT	WGFG	MILLER COMMUNICATIONS, INC.	C3	BRANCHVILLE	SC	LIC	12.5	193.6	287	2	113.9	0
1251487	6485	Null	Null	WGFG	MILLER COMMUNICATIONS, INC.	C3	BRANCHVILLE	SC	USE	0	0	287	2	120.9	0
1388189	66643	BLH	20100709AHP	WPDT	GLORY COMMUNICATIONS, INC.	C3	COWARD	SC	LIC	18	142	286	1	122	0



Facility id: 153420;
Area of Interference;

