

Centro Cristiano Oasis de Bendicion, Inc.
Second-Adjacent Waiver Request
Augusta, GA

The proposed LPFM station will broadcast on channel 247, which is within the 40 kilometers, second-adjacent minimum distance separation of station WTHB-FM on channel 245. The WTHB-FM interfering contour at the LPFM tower site is 61.4 dBμ F(50,50). Using the ratio of 100:1 (LPFM to WTHB-FM) on the second-adjacent channel, the population within the proposed LPFM 101.4 dBμ contours respectively is zero. Applying the antenna manufacturer's vertical radiation pattern the area of interference can be more accurately calculated geometrically, rather than just by using the free space equation alone. This particular antenna is a three bay full wave spaced Nicom BKG77-3 antenna. It was determined from the manufacturer's vertical plan that from 55 - 75 degrees below horizontal the interference area would reach the ground and extend 31.5 meters horizontally. We have proposed the antenna radiation center will be 43 meters above ground with an Effective Radiated Power of 20 watts. There are no occupied structures or roadways within the interference area of the station. Therefore, the application is in compliance with §73.807(e)(1) *Waiver of the second-adjacent channel separations.*

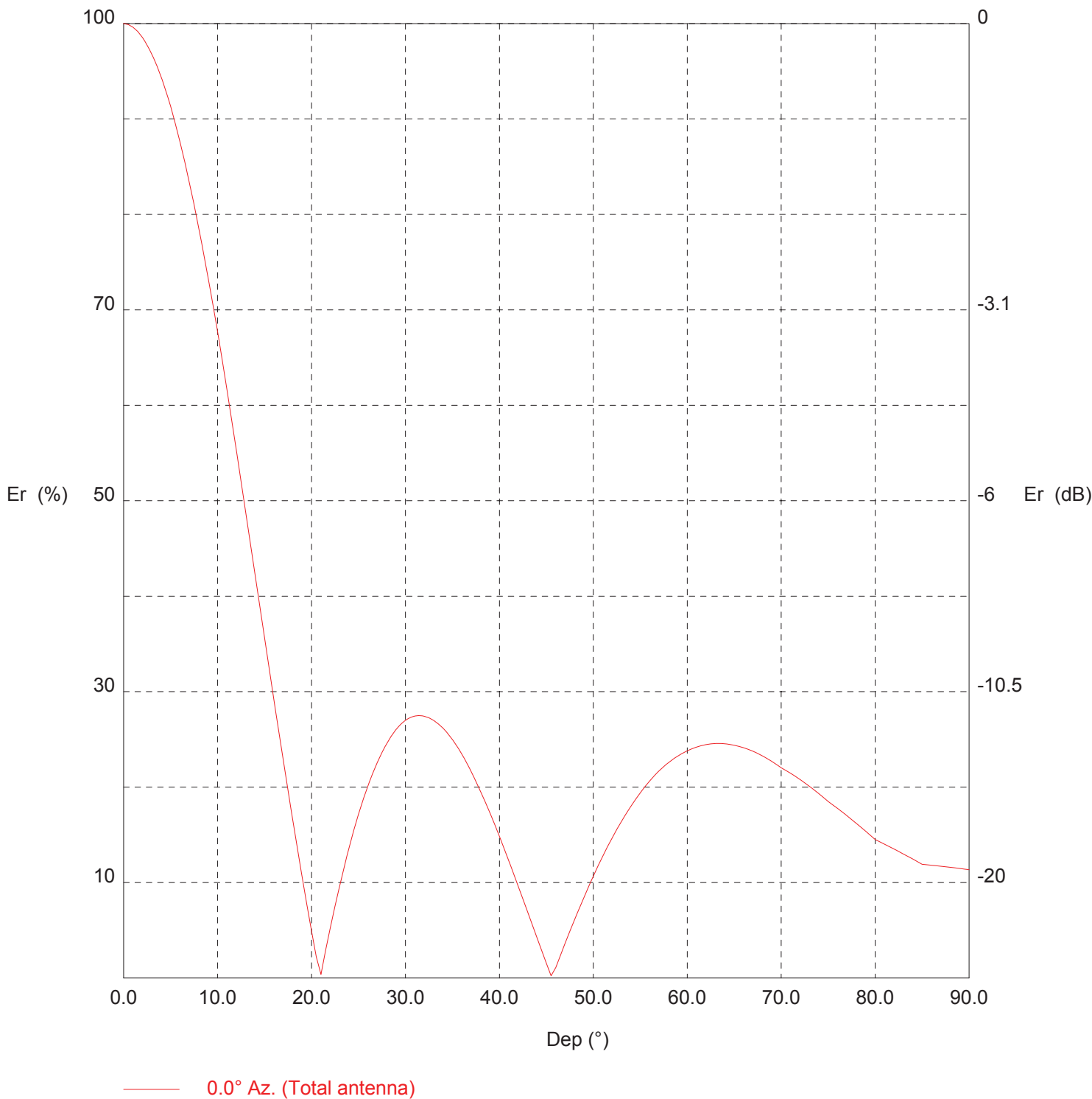
Figure 1
Minimum Ground Clearance

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	0.913	16.7	244	243.1	21.7
10	0.678	9.2	181	178.3	11.6
15	0.357	2.5	94	90.8	18.7
20	0.049	0.0	0	0.0	43.0
25	0.171	0.6	46	41.7	23.6
30	0.270	1.5	73	63.2	6.5
35	0.250	1.3	68	55.7	4.0
40	0.148	0.4	38	29.1	18.6
45	0.015	0.0	0	0.0	43.0
50	0.107	0.2	27	17.4	22.3
55	0.194	0.8	53	30.4	-0.4
60	0.238	1.1	63	31.5	-11.6
65	0.244	1.2	65	27.5	-15.9
70	0.220	1.0	60	20.5	-13.4
75	0.185	0.7	50	12.9	-5.3
80	0.145	0.4	38	6.6	5.6
85	0.119	0.3	33	2.9	10.1
90	0.114	0.3	33	0.0	10.0
Minimum Clearance above TGL:					-15.9

TX station: BKG77/3 GENERIC
Frequency: 97.30 MHz

WMFJ-LP:

Vertical diagram



TX station: BKG77/3 GENERIC

WMFJ-LP:

Frequency: 97.30 MHz

Vertical diagram at an azimuth of 0° degrees

Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)
0.0	100.0	1.34	30.0	27.0	0.10	60.0	23.8	0.08
0.5	99.9	1.34	30.5	27.3	0.10	60.5	24.0	0.08
1.0	99.6	1.33	31.0	27.4	0.10	61.0	24.2	0.08
1.5	99.2	1.32	31.5	27.5	0.10	61.5	24.3	0.08
2.0	98.5	1.30	32.0	27.4	0.10	62.0	24.5	0.08
2.5	97.8	1.28	32.5	27.3	0.10	62.5	24.5	0.08
3.0	96.8	1.26	33.0	27.0	0.10	63.0	24.6	0.08
3.5	95.7	1.23	33.5	26.6	0.09	63.5	24.6	0.08
4.0	94.4	1.19	34.0	26.2	0.09	64.0	24.5	0.08
4.5	92.9	1.16	34.5	25.6	0.09	64.5	24.5	0.08
5.0	91.3	1.12	35.0	25.0	0.08	65.0	24.4	0.08
5.5	89.5	1.07	35.5	24.2	0.08	65.5	24.3	0.08
6.0	87.6	1.03	36.0	23.4	0.07	66.0	24.1	0.08
6.5	85.5	0.98	36.5	22.5	0.07	66.5	23.9	0.08
7.0	83.3	0.93	37.0	21.6	0.06	67.0	23.7	0.08
7.5	81.0	0.88	37.5	20.6	0.06	67.5	23.5	0.07
8.0	78.6	0.83	38.0	19.5	0.05	68.0	23.3	0.07
8.5	76.0	0.77	38.5	18.4	0.05	68.5	23.0	0.07
9.0	73.4	0.72	39.0	17.3	0.04	69.0	22.7	0.07
9.5	70.6	0.67	39.5	16.1	0.03	69.5	22.4	0.07
10.0	67.8	0.62	40.0	14.8	0.03	70.0	22.0	0.07
10.5	64.7	0.56	40.5	13.6	0.02	70.5	21.7	0.06
11.0	61.6	0.51	41.0	12.3	0.02	71.0	21.4	0.06
11.5	58.5	0.46	41.5	11.0	0.02	71.5	21.1	0.06
12.0	55.3	0.41	42.0	9.6	0.01	72.0	20.8	0.06
12.5	52.1	0.36	42.5	8.3	0.01	72.5	20.4	0.06
13.0	48.8	0.32	43.0	6.9	0.01	73.0	20.1	0.05
13.5	45.5	0.28	43.5	5.6	0.00	73.5	19.7	0.05
14.0	42.2	0.24	44.0	4.2	0.00	74.0	19.3	0.05
14.5	38.9	0.20	44.5	2.9	0.00	74.5	18.9	0.05
15.0	35.7	0.17	45.0	1.5	0.00	75.0	18.5	0.05
15.5	32.4	0.14	45.5	0.2	0.00	75.5	18.1	0.04
16.0	29.1	0.11	46.0	1.1	0.00	76.0	17.8	0.04
16.5	25.9	0.09	46.5	2.4	0.00	76.5	17.4	0.04
17.0	22.7	0.07	47.0	3.6	0.00	77.0	17.0	0.04
17.5	19.6	0.05	47.5	4.9	0.00	77.5	16.6	0.04
18.0	16.5	0.04	48.0	6.1	0.00	78.0	16.2	0.04
18.5	13.5	0.02	48.5	7.3	0.01	78.5	15.8	0.03
19.0	10.5	0.01	49.0	8.5	0.01	79.0	15.4	0.03
19.5	7.7	0.01	49.5	9.6	0.01	79.5	14.9	0.03
20.0	4.9	0.00	50.0	10.7	0.02	80.0	14.5	0.03
20.5	2.2	0.00	50.5	11.7	0.02	80.5	14.3	0.03
21.0	0.4	0.00	51.0	12.7	0.02	81.0	14.0	0.03
21.5	2.9	0.00	51.5	13.7	0.03	81.5	13.8	0.03
22.0	5.3	0.00	52.0	14.7	0.03	82.0	13.5	0.02
22.5	7.5	0.01	52.5	15.6	0.03	82.5	13.3	0.02
23.0	9.7	0.01	53.0	16.4	0.04	83.0	13.0	0.02
23.5	11.7	0.02	53.5	17.2	0.04	83.5	12.7	0.02
24.0	13.7	0.02	54.0	18.0	0.04	84.0	12.5	0.02
24.5	15.5	0.03	54.5	18.7	0.05	84.5	12.2	0.02
25.0	17.1	0.04	55.0	19.4	0.05	85.0	11.9	0.02
25.5	18.7	0.05	55.5	20.1	0.05	85.5	11.9	0.02
26.0	20.1	0.05	56.0	20.7	0.06	86.0	11.8	0.02
26.5	21.4	0.06	56.5	21.2	0.06	86.5	11.8	0.02
27.0	22.6	0.07	57.0	21.7	0.06	87.0	11.7	0.02
27.5	23.6	0.07	57.5	22.2	0.07	87.5	11.6	0.02
28.0	24.5	0.08	58.0	22.6	0.07	88.0	11.6	0.02
28.5	25.3	0.09	58.5	22.9	0.07	88.5	11.5	0.02
29.0	26.0	0.09	59.0	23.3	0.07	89.0	11.5	0.02
29.5	26.6	0.09	59.5	23.5	0.07	89.5	11.4	0.02

Figure 4
Aerial Photo of the 31.5 meter Vicinity Surrounding the Proposed Tower Site

