

**Exhibit 11 Page 1**  
**Iglesia Gozo de Mi Alma**  
**Second-Adjacent Waiver Request**  
**Fort Smith, AR**

The proposed LPFM station will broadcast on channel 272, which is within the 21 kilometers second-adjacent minimum distance separation of station K269AL on channel 270 and the 53 kilometers second-adjacent minimum distance separation of station KBBQ-FM on channel 274. The K269AL interfering contour at the LPFM tower site is 88.0 dBμ F(50,50). The KBBQ-FM interfering contour at the LPFM tower site is 87.3 dBμ F(50,50). Using the ratio of 40:1 (LPFM to K269AL and KBBQ-FM) on the second-adjacent channel, the population within the proposed LPFM 128.0 dBμ contour and 123.3 dBμ contour 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 one bay full-wave spaced Nicom BKG77. It was determined from the manufacturer's vertical plan that at 35 degrees below horizontal the interference area would extend 10.9 meters toward the ground. We have proposed the antenna radiation center will be 20 meters above ground, thus the interference area will never reach the ground. There are no occupied structures or elevated roadways within the interference area of the translator. Therefore, the application is in compliance with §73.807(e)(1) *Waiver of the second-adjacent channel separations.*

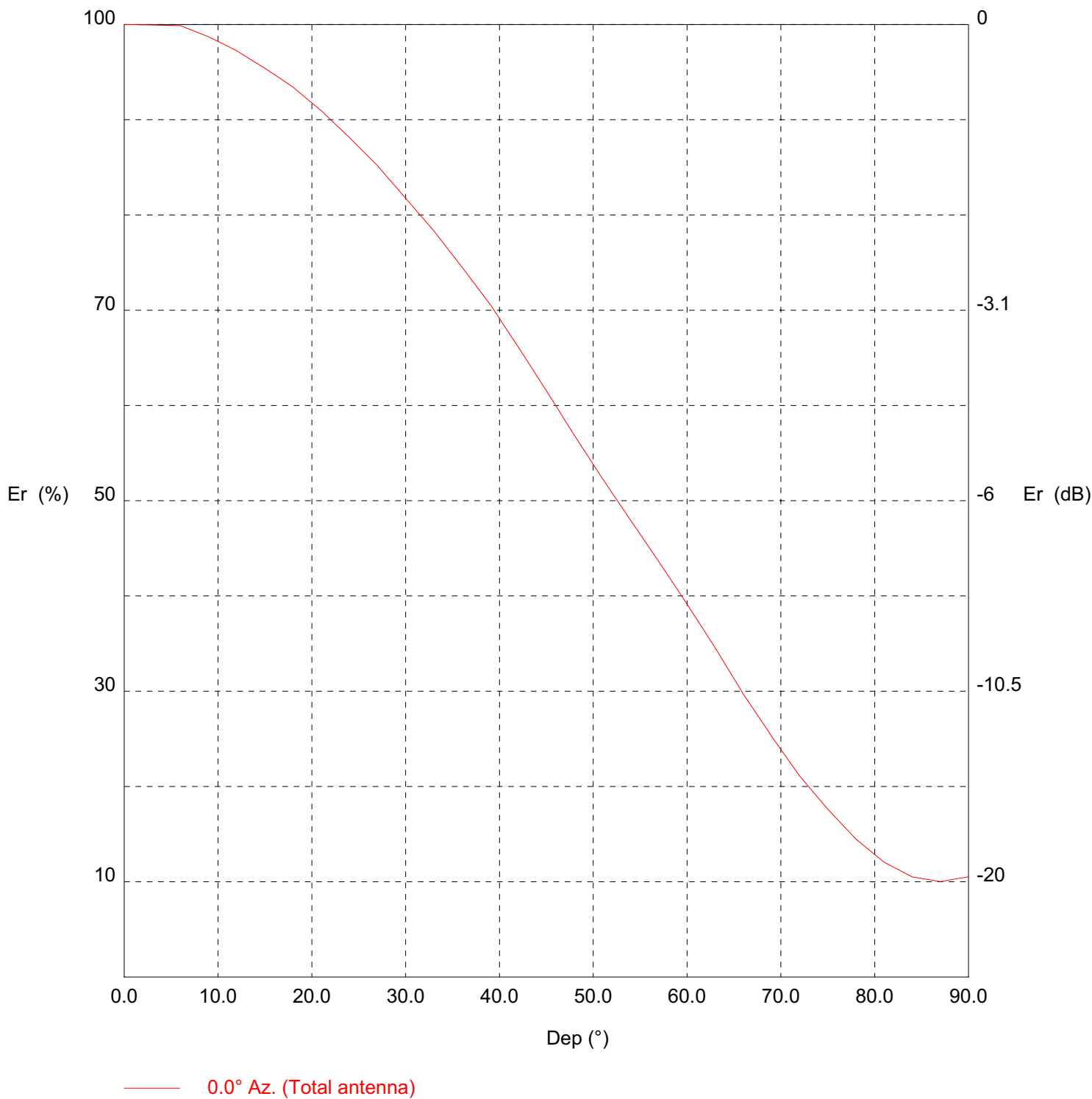
# Exhibit 11 Figure 1

## 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	0.999	25.9	24	23.9	17.9
10	0.982	25.1	24	23.6	15.8
15	0.954	23.7	23	22.2	14.0
20	0.918	21.9	22	20.7	12.5
25	0.872	19.8	21	19.0	11.1
30	0.818	17.4	20	17.3	10.0
35	0.758	14.9	19	15.6	9.1
40	0.691	12.4	17	13.0	9.1
45	0.616	9.9	15	10.6	9.4
50	0.538	7.5	13	8.4	10.0
55	0.465	5.6	11	6.3	11.0
60	0.391	4.0	10	5.0	11.3
65	0.313	2.5	8	3.4	12.7
70	0.239	1.5	6	2.1	14.4
75	0.176	0.8	4	1.0	16.1
80	0.129	0.4	3	0.5	17.0
85	0.103	0.3	3	0.3	17.0
90	0.105	0.3	3	0.0	17.0
Minimum Clearance above TGL:					9.1

**Exhibit 11 Figure 2 Page 1**TX station: **Manufacturer Elevation Pattern** Site name: 1 BAY ANTENNA

Frequency: 100.00 MHz

**Vertical diagram**

**Exhibit 11 Figure 2 Page 2**

TX station: **Manufacturer Elevation Pattern** Site name: 1 BAY ANTENNA  
 Frequency: 100.00 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	373.6	30.0	81.8	249.8	60.0	39.1	57.2
0.5	100.0	373.6	30.5	81.2	246.3	60.5	38.4	55.0
1.0	100.0	373.5	31.0	80.6	242.9	61.0	37.6	52.8
1.5	100.0	373.4	31.5	80.1	239.5	61.5	36.8	50.7
2.0	100.0	373.4	32.0	79.5	236.1	62.0	36.1	48.6
2.5	100.0	373.3	32.5	78.9	232.7	62.5	35.3	46.6
3.0	99.9	373.3	33.0	78.3	229.3	63.0	34.5	44.6
3.5	99.9	373.2	33.5	77.7	225.6	63.5	33.7	42.5
4.0	99.9	373.1	34.0	77.1	222.0	64.0	32.9	40.5
4.5	99.9	373.0	34.5	76.4	218.3	64.5	32.1	38.6
5.0	99.9	372.9	35.0	75.8	214.7	65.0	31.3	36.6
5.5	99.9	372.8	35.5	75.2	211.1	65.5	30.5	34.8
6.0	99.9	372.8	36.0	74.5	207.6	66.0	29.7	33.0
6.5	99.7	371.3	36.5	73.9	204.0	66.5	29.0	31.4
7.0	99.5	369.9	37.0	73.2	200.4	67.0	28.2	29.8
7.5	99.3	368.4	37.5	72.6	196.8	67.5	27.5	28.3
8.0	99.1	367.0	38.0	71.9	193.3	68.0	26.8	26.8
8.5	98.9	365.5	38.5	71.3	189.8	68.5	26.0	25.3
9.0	98.7	364.1	39.0	70.6	186.3	69.0	25.3	23.9
9.5	98.5	362.3	39.5	69.9	182.4	69.5	24.6	22.6
10.0	98.2	360.5	40.0	69.1	178.6	70.0	23.9	21.3
10.5	98.0	358.7	40.5	68.4	174.7	70.5	23.2	20.1
11.0	97.7	356.9	41.0	67.6	170.9	71.0	22.5	18.9
11.5	97.5	355.1	41.5	66.9	167.2	71.5	21.8	17.7
12.0	97.2	353.3	42.0	66.1	163.5	72.0	21.1	16.6
12.5	96.9	351.1	42.5	65.4	159.7	72.5	20.5	15.7
13.0	96.6	348.9	43.0	64.6	156.0	73.0	19.9	14.8
13.5	96.3	346.7	43.5	63.9	152.3	73.5	19.3	14.0
14.0	96.0	344.5	44.0	63.1	148.7	74.0	18.8	13.2
14.5	95.7	342.3	44.5	62.3	145.1	74.5	18.2	12.4
15.0	95.4	340.1	45.0	61.6	141.6	75.0	17.6	11.6
15.5	95.1	337.8	45.5	60.8	138.0	75.5	17.1	10.9
16.0	94.7	335.4	46.0	60.0	134.4	76.0	16.6	10.2
16.5	94.4	333.1	46.5	59.2	130.9	76.5	16.0	9.6
17.0	94.1	330.8	47.0	58.4	127.5	77.0	15.5	9.0
17.5	93.8	328.4	47.5	57.6	124.1	77.5	15.0	8.4
18.0	93.4	326.1	48.0	56.8	120.7	78.0	14.5	7.8
18.5	93.0	323.3	48.5	56.1	117.5	78.5	14.1	7.4
19.0	92.6	320.4	49.0	55.3	114.4	79.0	13.7	7.0
19.5	92.2	317.5	49.5	54.6	111.3	79.5	13.3	6.6
20.0	91.8	314.7	50.0	53.8	108.2	80.0	12.9	6.2
20.5	91.4	311.9	50.5	53.1	105.2	80.5	12.5	5.8
21.0	91.0	309.1	51.0	52.3	102.2	81.0	12.0	5.4
21.5	90.5	305.9	51.5	51.6	99.4	81.5	11.8	5.2
22.0	90.0	302.7	52.0	50.8	96.6	82.0	11.5	5.0
22.5	89.5	299.6	52.5	50.1	93.8	82.5	11.3	4.8
23.0	89.1	296.5	53.0	49.4	91.1	83.0	11.0	4.5
23.5	88.6	293.4	53.5	48.6	88.4	83.5	10.8	4.3
24.0	88.1	290.3	54.0	47.9	85.8	84.0	10.5	4.1
24.5	87.6	287.0	54.5	47.2	83.2	84.5	10.4	4.1
25.0	87.2	283.8	55.0	46.5	80.7	85.0	10.3	4.0
25.5	86.7	280.6	55.5	45.7	78.2	85.5	10.3	3.9
26.0	86.2	277.4	56.0	45.0	75.7	86.0	10.2	3.9
26.5	85.7	274.2	56.5	44.3	73.3	86.5	10.1	3.8
27.0	85.2	271.1	57.0	43.6	71.0	87.0	10.0	3.7
27.5	84.6	267.5	57.5	42.8	68.6	87.5	10.1	3.8
28.0	84.0	263.9	58.0	42.1	66.2	88.0	10.2	3.9
28.5	83.5	260.3	58.5	41.4	63.9	88.5	10.3	3.9
29.0	82.9	256.8	59.0	40.6	61.6	89.0	10.4	4.0
29.5	82.3	253.3	59.5	39.9	59.4	89.5	10.4	4.1



**Exhibit 11 Figure 3**  
**Aerial Photo of the Vicinity Surrounding the Proposed Tower Site**

