

Exhibit 11

New Harvest Transformation Center

Second-Adjacent Waiver Request

Corpus Christi, Texas

The proposed LPFM station will broadcast on channel 265, which is within the 73 kilometers second-adjacent minimum distance separation of station KNCN on channel 267. The KNCN interfering contour at the LPFM tower site is 83.4 dBμ F(50,50). Using the ratio of 100:1 (LPFM to KNCN) on the second-adjacent channel, the population within the proposed LPFM 123.4 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 Nicom BKG77 full wave spaced antenna. It was determined from the manufacturer's vertical plan that at 40 degrees below horizontal the interference area would extend 20.6 meters toward the ground and extend 24.5 meters horizontally. We have proposed the antenna radiation center will be 25 meters above ground with an Effective Radiated Power of 93 watts, thus the interference area will not reach the ground. Further, there are no occupied structures or elevated roadways within the interference area. 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	92.8	46	45.8	21.0
10	0.982	89.7	45	44.3	17.2
15	0.954	84.6	44	42.5	13.6
20	0.918	78.4	42	39.5	10.6
25	0.872	70.7	40	36.3	8.1
30	0.818	62.2	37	32.0	6.5
35	0.758	53.4	35	28.7	4.9
40	0.691	44.4	32	24.5	4.4
45	0.616	35.3	28	19.8	5.2
50	0.538	26.9	25	16.1	5.8
55	0.465	20.1	21	12.0	7.8
60	0.391	14.2	18	9.0	9.4
65	0.313	9.1	14	5.9	12.3
70	0.239	5.3	11	3.8	14.7
75	0.176	2.9	8	2.1	17.3
80	0.129	1.5	6	1.0	19.1
85	0.103	1.0	5	0.4	20.0
90	0.104	1.0	5	0.0	20.0
Minimum Clearance above TGL:					4.4 m

Antenna Height Above Average Terrain Calculations -- Results

Input Data

Latitude **27° 46' 37"** North
Longitude **97° 25' 4"** West (NAD 27)

These coordinates convert to NAD 83 coordinates of
27° 46' 38.10", North, 97° 25' 04.97" West (NAD 83).

Height of antenna radiation center above mean sea level: **37 meters AMSL**

Number of Evenly Spaced Radials = **8** 0° is referenced to True North

Results

Calculated HAAT = **31 meters**

Antenna Height Above Average Terrain calculated
using 1 km [GLOBE terrain data](#)

Individual "Radial HAAT" Values, in meters

0°	30.0 m
45°	35.7 m
90°	36.9 m
135°	29.9 m
180°	31.0 m
225°	29.7 m
270°	24.6 m
315°	33.9 m

[Print Results?](#)

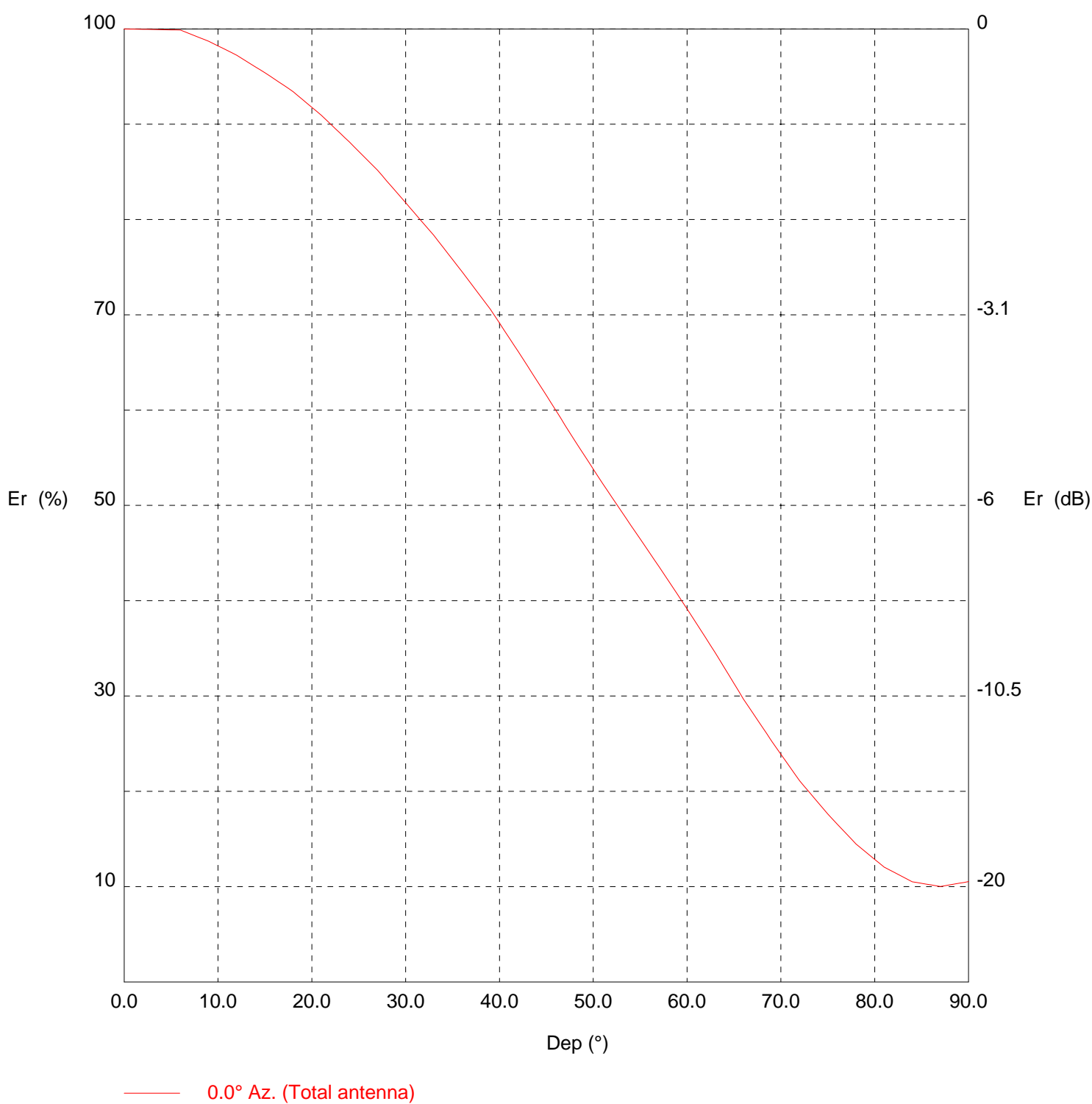
[New Calculation?](#)

TX station:

Site name: 1 BAY ANTENNA

Frequency: 100.00 MHz

Vertical diagram



TX station:

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 4
Aerial Photo of the 24.5 meter Vicinity Surrounding the Proposed Tower Site

