

New LPFM Application  
Lexington KY – Channel 208-LP100

Site Information:

Proposed Tower Structure Location:

NAD 83: 38 03 26.0 84 32 27. 0

Site Elevation: 281.0 m AMSL Support Structure Height: 45.0m Total Height: 45.0m

Antenna: Nicom BKG88 1-bay Circular Antenna. HAGL: 43.3m ERP: 51 watts

The Proposed location meets all distance separation requirements with respect to co-channel and first adjacent facilities. The attached map visualizes this chart:

CALL	CITY	ST CHN CL	DIST	SEP	BRNG	CLEARANCE
WKVO	GEORGETOWN	KY 210 C2	16.34	53.00	358.0	-36.7
Second Adjacent Waiver Requested						
W06DG-D	EVANSVILLE	IN 6 TV	262.32	0.00	266.8	0.0
WDHC-LD	DICKSON-NASHVILLE	TN 6 TV	314.01	0.00	232.2	0.0
WIMV	OWINGSVILLE	KY 207 A	68.74	56.00	77.5	12.7
WDCL-FM	SOMERSET	KY 209 C1	113.94	100.00	209.0	13.9
WFPL	LOUISVILLE	KY 207 B	118.81	97.00	287.2	21.8
KYAI	MCKEE	KY 207 C1	126.22	100.00	149.6	26.2
WZWP	WEST UNION	OH 208 B1	120.35	87.00	42.0	33.4

The applicant requests a waiver with respect to WKVO (FM), CH 210C2 located 16.34km away. The Signal of WKVO(FM) at the proposed location is 77.2dBu (50,50) making the corresponding interfering contour of the proposed facility 117.2dBu (50,10). The free space distance to this contour in a worst case scenario of a single dipole antenna at the ERP of 51 watts is 69.1m.

The applicant proposes the use of the Nicom single bay antenna which has the characteristics noted in the attached tabular chart. The depression angle field values were provided by the antenna manufacturer. Utilizing the proposed HAGL of 43.3 meters and an ERP of 51 watts, the chart calculates that the 117.2dBu (50,10) contour does reach a point closer than 18 meters above the ground at any depression angle. Should the FCC calculations to assign ERP differ from the chart's calculations, a maximum has been evaluated and is attached with demonstrates that the contour will not reach a point closer than 2 meters above ground up to 90 watts ERP, which would exceed the allowed power for the class.

Thus, the applicant requests a waiver to operate the proposed facility on the basis of zero population in the area of real interference with respect to WKVO (FM).

## Site Clearance for FAA

**\* Structure Type:** TOWER | Tower  
Please select structure type and complete location point information.

**Latitude:** 38 Deg 03 M 26.0 S N

**Longitude:** 84 Deg 32 M 27.0 S W

**Horizontal Datum:** NAD83

**Site Elevation (SE):** 921 (nearest foot)

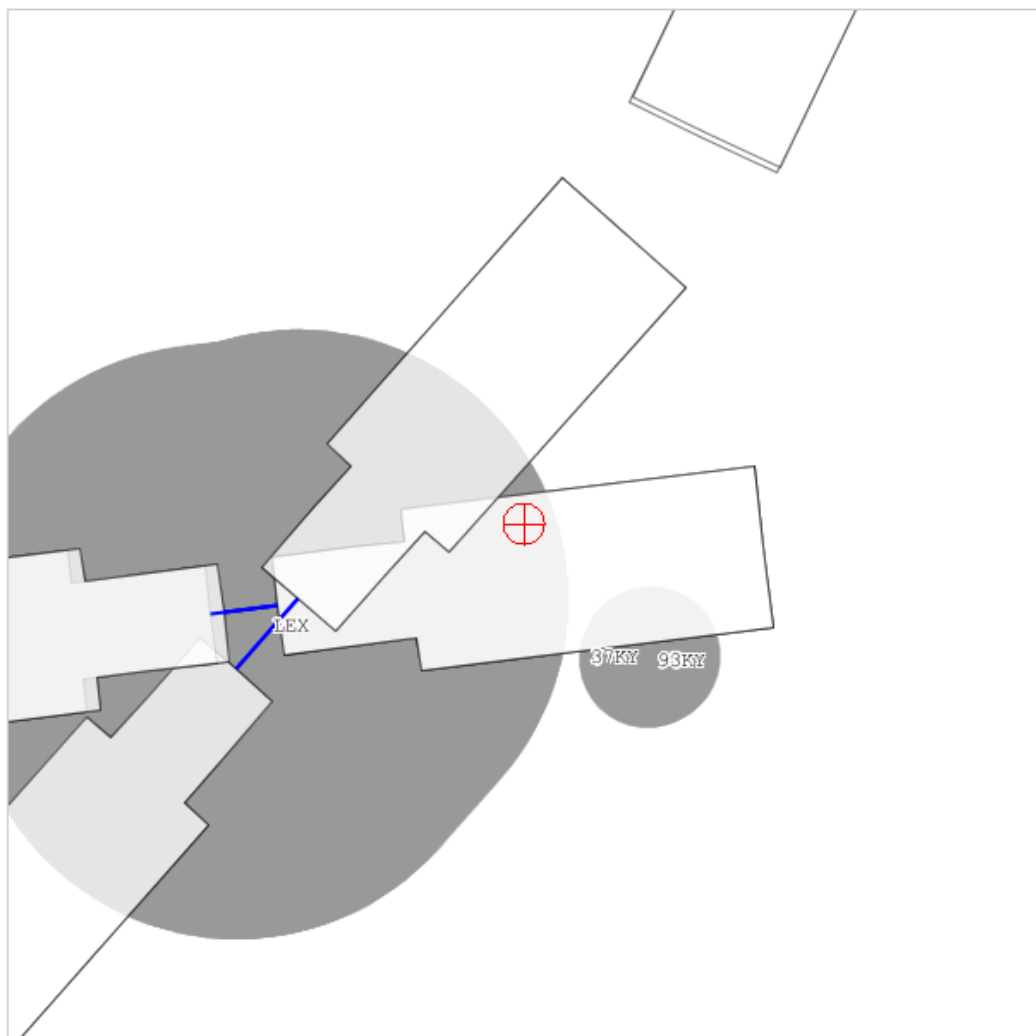
**Structure Height :** 148 (nearest foot)

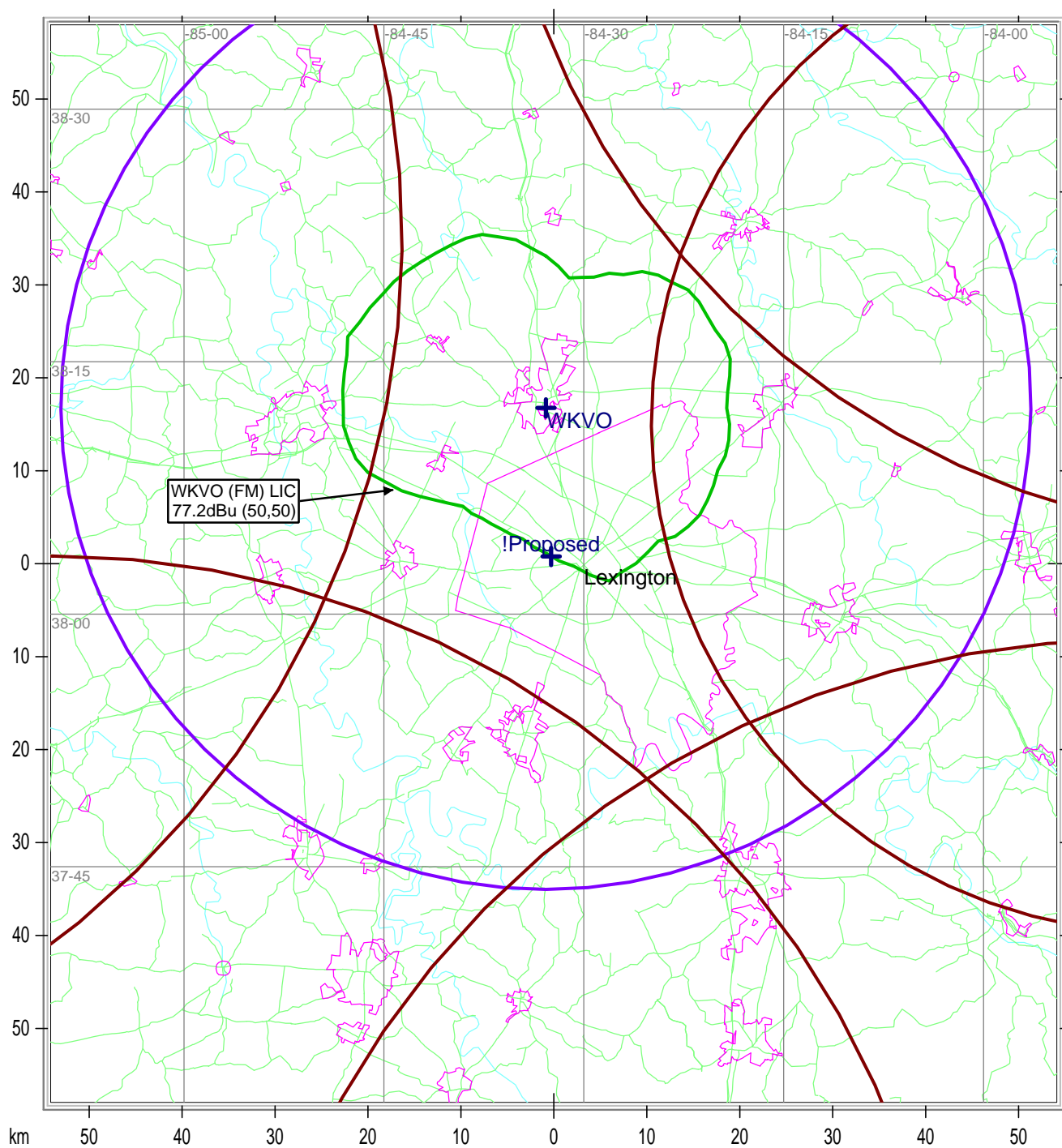
**Is structure on airport:** ☒ No ☐ Yes

**Submit**

### Results

You do not exceed Notice Criteria.





State Borders    City Borders    Highways    Water Features    Lat/Lon Grid

# NICOM BKG-88

## 1-Bay Circularly Polarized FM Antenna

Frequency = 

98.5
117.2

 Mhz  
Interfering Contour 

dBu (50,10)
-------------

ERP= 

51
----

 watts  
Height = 

41.3
------

 m AGL

Depression Angle	Relative Field (o)	Effective Power (w)	Distance to Contour (m)	Distance from Antenna to Ground (m)	Clearance (m)
1	1.000	51.0	69.15	2,366.44	2297
2	1.000	51.0	69.15	1,183.40	1114
3	0.999	50.9	69.08	789.13	720
4	0.999	50.9	69.08	592.06	523
5	0.999	50.9	69.08	473.86	405
6	0.999	50.9	69.08	395.11	326
7	0.995	50.5	68.80	338.89	270
8	0.991	50.1	68.53	296.75	228
9	0.987	49.7	68.28	264.01	196
10	0.982	49.2	67.90	237.84	170
11	0.977	48.7	67.56	216.45	149
12	0.970	48.0	67.07	198.64	132
13	0.966	47.6	66.80	183.60	117
14	0.960	47.0	66.38	170.72	104
15	0.954	46.4	65.97	159.57	94
16	0.947	45.7	65.48	149.83	84
17	0.941	45.2	65.07	141.26	76
18	0.934	44.5	64.59	133.65	69
19	0.926	43.7	64.03	126.86	63
20	0.918	43.0	63.48	120.75	57
21	0.910	42.2	62.93	115.24	52
22	0.900	41.3	62.23	110.25	48
23	0.891	40.5	61.61	105.70	44
24	0.881	39.6	60.92	101.54	41
25	0.872	38.8	60.30	97.72	37
26	0.862	37.9	59.61	94.21	35
27	0.852	37.0	58.91	90.97	32
28	0.840	36.0	58.09	87.97	30
29	0.829	35.0	57.32	85.19	28
30	0.818	34.1	56.56	82.60	26
31	0.806	33.1	55.73	80.19	24
32	0.795	32.2	54.97	77.94	23
33	0.783	31.3	54.14	75.83	22
34	0.771	30.3	53.31	73.86	21
35	0.758	29.3	52.41	72.00	20
36	0.745	28.3	51.52	70.26	19
37	0.732	27.3	50.62	68.63	18
38	0.719	26.4	49.72	67.08	17
39	0.706	25.4	48.82	65.63	17
40	0.691	24.4	47.78	64.25	16
41	0.676	23.3	46.74	62.95	16
42	0.661	22.3	45.71	61.72	16
43	0.646	21.3	44.67	60.56	16
44	0.631	20.3	43.63	59.45	16
45	0.616	19.4	42.60	58.41	16

Depression Angle	Relative Field	Effective Power (w)	Distance to Contour (m)	Distance from Antenna to Ground (m)	Clearance (m)
46	0.600	18.4	41.49	57.41	16
47	0.584	17.4	40.38	56.47	16
48	0.568	16.5	39.28	55.57	16
49	0.553	15.6	38.24	54.72	16
50	0.540	14.9	37.33	53.91	17
51	0.523	13.9	36.16	53.14	17
52	0.508	13.2	35.13	52.41	17
53	0.494	12.4	34.16	51.71	18
54	0.479	11.7	33.12	51.05	18
55	0.465	11.0	32.15	50.42	18
56	0.450	10.3	31.12	49.82	19
57	0.436	9.7	30.15	49.24	19
58	0.421	9.0	29.11	48.70	20
59	0.406	8.4	28.07	48.18	20
60	0.391	7.8	27.04	47.69	21
61	0.376	7.2	26.00	47.22	21
62	0.361	6.6	24.96	46.78	22
63	0.345	6.1	23.86	46.35	22
64	0.329	5.5	22.75	45.95	23
65	0.313	5.0	21.64	45.57	24
66	0.297	4.5	20.54	45.21	25
67	0.282	4.1	19.50	44.87	25
68	0.268	3.7	18.53	44.54	26
69	0.253	3.3	17.49	44.24	27
70	0.230	2.7	15.90	43.95	28
71	0.225	2.6	15.56	43.68	28
72	0.211	2.3	14.59	43.43	29
73	0.199	2.0	13.76	43.19	29
74	0.188	1.8	13.00	42.96	30
75	0.176	1.6	12.17	42.76	31
76	0.166	1.4	11.48	42.56	31
77	0.155	1.2	10.72	42.39	32
78	0.145	1.1	10.03	42.22	32
79	0.138	1.0	9.54	42.07	33
80	0.129	0.8	8.92	41.94	33
81	0.120	0.7	8.30	41.81	34
82	0.115	0.7	7.95	41.71	34
83	0.110	0.6	7.61	41.61	34
84	0.105	0.6	7.26	41.53	34
85	0.103	0.5	7.12	41.46	34
86	0.102	0.5	7.05	41.40	34
87	0.100	0.5	6.91	41.36	34
88	0.102	0.5	7.05	41.33	34
89	0.104	0.6	7.19	41.31	34
90	0.105	0.6	0.00	41.30	41

**NOTES:**

- HEIGHT HAS BEEN REDUCED BY 2 METERS TO ALLOW FOR HUMAN EXPOSURE
- DISTANCE FROM ANTENNA TO GROUND IS ACTUALLY TO A POINT 2 METERS ABOVE GROUND

# NICOM BKG-88

## 1-Bay Circularly Polarized FM Antenna

Frequency = 

89.5
117.2

 Mhz  
Interfering Contour 

dBu (50,10)
-------------

ERP= 

90
----

 watts  
Height = 

41.3
------

 m AGL

Depression Angle	Relative Field (o)	Effective Power (w)	Distance to Contour (m)	Distance from Antenna to Ground (m)	Clearance (m)
1	1.000	90.0	91.86	2,366.44	2275
2	1.000	90.0	91.86	1,183.40	1092
3	0.999	89.8	91.77	789.13	697
4	0.999	89.8	91.77	592.06	500
5	0.999	89.8	91.77	473.86	382
6	0.999	89.8	91.77	395.11	303
7	0.995	89.1	91.40	338.89	247
8	0.991	88.4	91.03	296.75	206
9	0.987	87.7	90.70	264.01	173
10	0.982	86.8	90.21	237.84	148
11	0.977	85.9	89.75	216.45	127
12	0.970	84.7	89.10	198.64	110
13	0.966	84.0	88.74	183.60	95
14	0.960	82.9	88.18	170.72	83
15	0.954	81.9	87.63	159.57	72
16	0.947	80.7	86.99	149.83	63
17	0.941	79.7	86.44	141.26	55
18	0.934	78.5	85.80	133.65	48
19	0.926	77.2	85.06	126.86	42
20	0.918	75.8	84.33	120.75	36
21	0.910	74.5	83.59	115.24	32
22	0.900	72.9	82.67	110.25	28
23	0.891	71.4	81.85	105.70	24
24	0.881	69.9	80.93	101.54	21
25	0.872	68.4	80.10	97.72	18
26	0.862	66.9	79.18	94.21	15
27	0.852	65.3	78.26	90.97	13
28	0.840	63.5	77.16	87.97	11
29	0.829	61.9	76.15	85.19	9
30	0.818	60.2	75.14	82.60	7
31	0.806	58.5	74.04	80.19	6
32	0.795	56.9	73.03	77.94	5
33	0.783	55.2	71.93	75.83	4
34	0.771	53.5	70.82	73.86	3
35	0.758	51.7	69.63	72.00	2
36	0.745	50.0	68.43	70.26	2
37	0.732	48.2	67.24	68.63	1
38	0.719	46.5	66.05	67.08	1
39	0.706	44.9	64.85	65.63	1
40	0.691	43.0	63.47	64.25	1
41	0.676	41.1	62.10	62.95	1
42	0.661	39.3	60.72	61.72	1
43	0.646	37.6	59.34	60.56	1
44	0.631	35.8	57.96	59.45	1
45	0.616	34.2	56.59	58.41	2

Depression Angle	Relative Field	Effective Power (w)	Distance to Contour (m)	Distance from Antenna to Ground (m)	Clearance (m)
46	0.600	32.4	55.12	57.41	2
47	0.584	30.7	53.65	56.47	3
48	0.568	29.0	52.18	55.57	3
49	0.553	27.5	50.80	54.72	4
50	0.540	26.2	49.59	53.91	4
51	0.523	24.6	48.04	53.14	5
52	0.508	23.2	46.66	52.41	6
53	0.494	22.0	45.38	51.71	6
54	0.479	20.6	44.00	51.05	7
55	0.465	19.5	42.71	50.42	8
56	0.450	18.2	41.34	49.82	8
57	0.436	17.1	40.05	49.24	9
58	0.421	16.0	38.67	48.70	10
59	0.406	14.8	37.29	48.18	11
60	0.391	13.8	35.92	47.69	12
61	0.376	12.7	34.54	47.22	13
62	0.361	11.7	33.16	46.78	14
63	0.345	10.7	31.69	46.35	15
64	0.329	9.7	30.22	45.95	16
65	0.313	8.8	28.75	45.57	17
66	0.297	7.9	27.28	45.21	18
67	0.282	7.2	25.90	44.87	19
68	0.268	6.5	24.62	44.54	20
69	0.253	5.8	23.24	44.24	21
70	0.230	4.8	21.13	43.95	23
71	0.225	4.6	20.67	43.68	23
72	0.211	4.0	19.38	43.43	24
73	0.199	3.6	18.28	43.19	25
74	0.188	3.2	17.27	42.96	26
75	0.176	2.8	16.17	42.76	27
76	0.166	2.5	15.25	42.56	27
77	0.155	2.2	14.24	42.39	28
78	0.145	1.9	13.32	42.22	29
79	0.138	1.7	12.68	42.07	29
80	0.129	1.5	11.85	41.94	30
81	0.120	1.3	11.02	41.81	31
82	0.115	1.2	10.56	41.71	31
83	0.110	1.1	10.10	41.61	32
84	0.105	1.0	9.65	41.53	32
85	0.103	1.0	9.46	41.46	32
86	0.102	0.9	9.37	41.40	32
87	0.100	0.9	9.19	41.36	32
88	0.102	0.9	9.37	41.33	32
89	0.104	1.0	9.55	41.31	32
90	0.105	1.0	0.00	41.30	41

**NOTES:**

- HEIGHT HAS BEEN REDUCED BY 2 METERS TO ALLOW FOR HUMAN EXPOSURE
- DISTANCE FROM ANTENNA TO GROUND IS ACTUALLY TO A POINT 2 METERS ABOVE GROUND