

WMKK-LPFM.CP Minor Modification

This technical report is submitted for a minor modification to WMKK-LPFM.CP 227L1 at Richmond, KY, FCC file no. BMPL-20160316ADV. The Permittee has discovered substantial received interference from the co-channel W227CW translator facility at Lexington-Fayette, KY. Furthermore, it is expected the WMKK-LPFM facility at channel 227 will cause interference to its listeners in the field. A separate declaration from the Permittee is included. Therefore, a move to channel 258 is submitted.

WMKK-LPFM Modification Analysis:

A channel study in exhibit E-1 shows the WMKK-LPFM modification to channel 258 is fully spaced at its current site at coordinates:

37-44-20 N 084 16 17W NAD 27.

A TOWAIR determination (exhibit E-2) shows the tower does not require registration. A Nicom BKG77-1 single bay, nondirectional antenna will be mounted at a COR AGL of 28 meters, 306 meters AMSL, 34 meters HAAT and will operate at 0.080 kW ERP. The average distance to the 60 dBu contour is calculated is 5.6 km. A 60 dBu contour plot is included in exhibit E-3.

RF Exposure Calculation:

The RF contribution of the WMKK-LPFM modification was calculated using the FMModel program. The resulting value is $0.38 \mu\text{W}/\text{cm}^2$ at a distance of 72 meters from the base of the tower, which is below 5% of the $200 \mu\text{W}/\text{cm}^2$ maximum permissible for general public exposure, allowing exclusion from consideration.

Conclusion:

It is submitted the minor modification application for WMKK-LPFM.CP is in full compliance with the Commission rules and policies.



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E-1 WMKK LPFM Mod. Spacing Study

REFERENCE

37 44 20.0 N.

84 16 17.0 W.

CLASS = L1

Current Spacings to 2nd Adj.

----- Channel 258 - 99.5 MHz -----

DISPLAY DATES

DATA 07-07-16

SEARCH 07-07-16

Call	Channel	Location	Azi	Dist	FCC	Margin
WKDP-FM	LIC 258C2	Corbin	KY 163.4	90.91	90.5	0.41
W257DP	CP 257D	Irvine	KY 106.4	29.01	27.5	1.5
WJMM-FM	LIC 256A	Keene	KY 332.6	40.91	28.5	12.4
WXCN-LP	LIC 259L1	Lexington	KY 334.1	35.93	13.5	22.4
WAOL	LIC 258C3	Ripley	OH 12.6	103.50	77.5	26.0
WMTC-FM	LIC 260A	Vancleve	KY 101.2	74.23	28.5	45.7

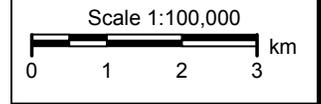
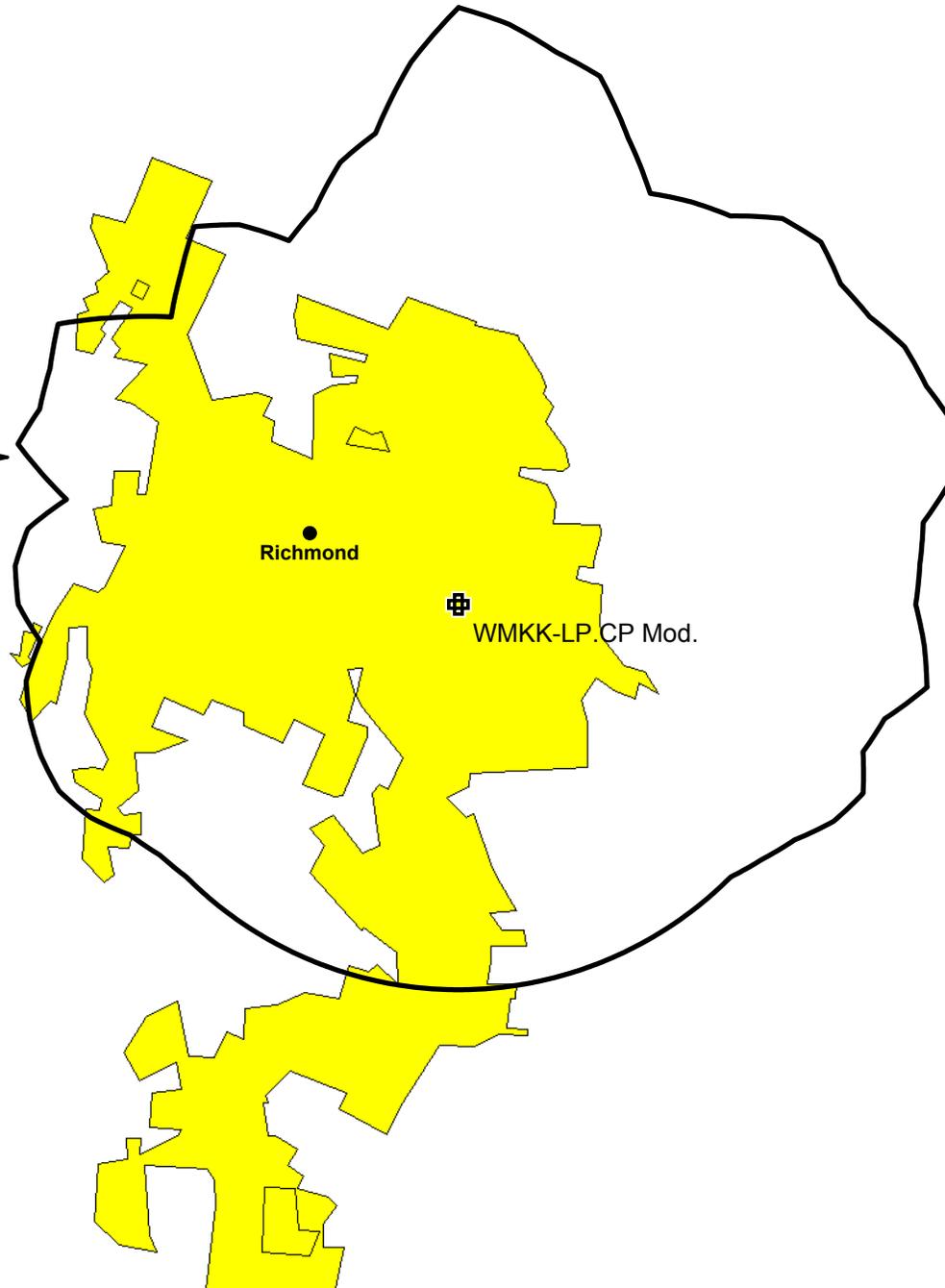
 Reference station has protected zone issue: AM tower
 All separation margins include rounding

E-2 WMKK-LPFM.CP Mod. 60 dBu Contour Plot

WMKK-LP.CP Mod.
BMPL20151027ADG
Latitude: 37-44-20 N
Longitude: 084-16-17 W
ERP: 0.08 kW
Channel: 258
Frequency: 99.5 MHz
AMSL Height: 306.0 m
Elevation: 278.0 m
Horiz. Pattern: Omni
Vert. Pattern: No Prop
Model: None

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60 dBu F(50-50) Contour



TOWAIR Determination Results

*** NOTICE ***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

DETERMINATION Results

Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.

Your Specifications

NAD83 Coordinates

Latitude	37-44-19.9 north
Longitude	084-16-16.8 west

Measurements (Meters)

Overall Structure Height (AGL)	61
Support Structure Height (AGL)	0
Site Elevation (AMSL)	278

Structure Type

GTOWER - Guyed Structure Used for Communication Purposes