

WRMK-LPFM.AP Modification

This technical report is submitted for an amendment to the pending application for WRMK-LP 262 LP100 at Augusta, GA, FCC facility ID 124210. A coordinate correction and change in the antenna COR AMSL is submitted.

WRMK-LPFM Modification Analysis:

A channel study in exhibit E-1 shows the WRMK-LPFM modification at channel 262 is fully spaced at its site at the corrected coordinates:

33-30 12.6 N 082 03 37.15W NAD 83.

A TOWAIR study (exhibit E-2) is included demonstrating that the facility does not require registration. An OMB MP-1 single bay, non-directional antenna will be mounted at a COR AGL of 30.0 meters, 115.3 meters AMSL, 23.4 meters HAAT (exhibit E-3) and will operate at 0.100 kW ERP. The average distance to the 60 dBu contour is calculated is 5.6 km. The 60 dBu contour overlaps the current 60 dBu contour licensed facility (exhibit E-4).

RF Exposure Calculation:

The RF contribution of the WRMK-LPFM modification was calculated using the FMModel program (exhibit E-5). The resulting value is $5.13 \mu\text{W}/\text{cm}^2$ at a distance of 7.6 meters from the base of the tower, which is less than 5% of the $200 \mu\text{W}/\text{cm}^2$ maximum permissible for general public, uncontrolled exposure, allowing exclusion from consideration.

Conclusion:

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


Christopher Anderson March 01, 2024
andersce@bham.rr.com
© 2024 Anderson Associates

E-1 WRMK-LP.AP Mod. Spacing Study

REFERENCE							DISPLAY DATES
33 30 12.60 N.			CLASS = L1				DATA 03-01-24
82 03 37.15 W.			Current Spacings to 2nd Adj.				SEARCH 03-01-24
----- Channel 262 - 100.3 MHz -----							

Call	Channel	Location		Azi	Dist	FCC	Margin
WRMK-LP	LIC 262L1	Augusta	GA	129.4	0.05	23.5	-23.5
WSSL-FM	LIC-N 263C0	Gray Court	SC	357.7	118.58	110.5	8.1
WUCC	LIC 260A	Williston	SC	101.0	63.61	28.5	35.1
WXRS-FM	CP 263C2	Brooklet	GA	174.0	122.12	79.5	42.6

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

TOWAIR Determination Results

A routine check of the coordinates, heights, and structure type you provided indicates that this structure does not require registration.

*** 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

PASS SLOPE(100:1)NO FAA REQ - 4570.0 Meters (14993.2 Feet)away & below slope by 44.0 Meters (144.360 Feet)

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	33-28-7.00N	082-02-3.00W	DANIEL FLD	RICHMOND AUGUSTA, GA	114.0	1219.8

PASS SLOPE(100:1)NO FAA REQ - 3981.0 Meters (13060.8 Feet)away & below slope by 38.0 Meters (124.67 Feet)

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	33-28-11.00N	082-02-45.00W	DANIEL FLD	RICHMOND AUGUSTA, GA	114.0	1219.8

Your Specifications

NAD83 Coordinates

Latitude	33-30-12.6 north
Longitude	082-03-37.2 west

Measurements (Meters)

Overall Structure Height (AGL)	30.5
Support Structure Height (AGL)	0
Site Elevation (AMSL)	85.3

Structure Type

GTOWER - Guyed Structure Used for Communication Purposes

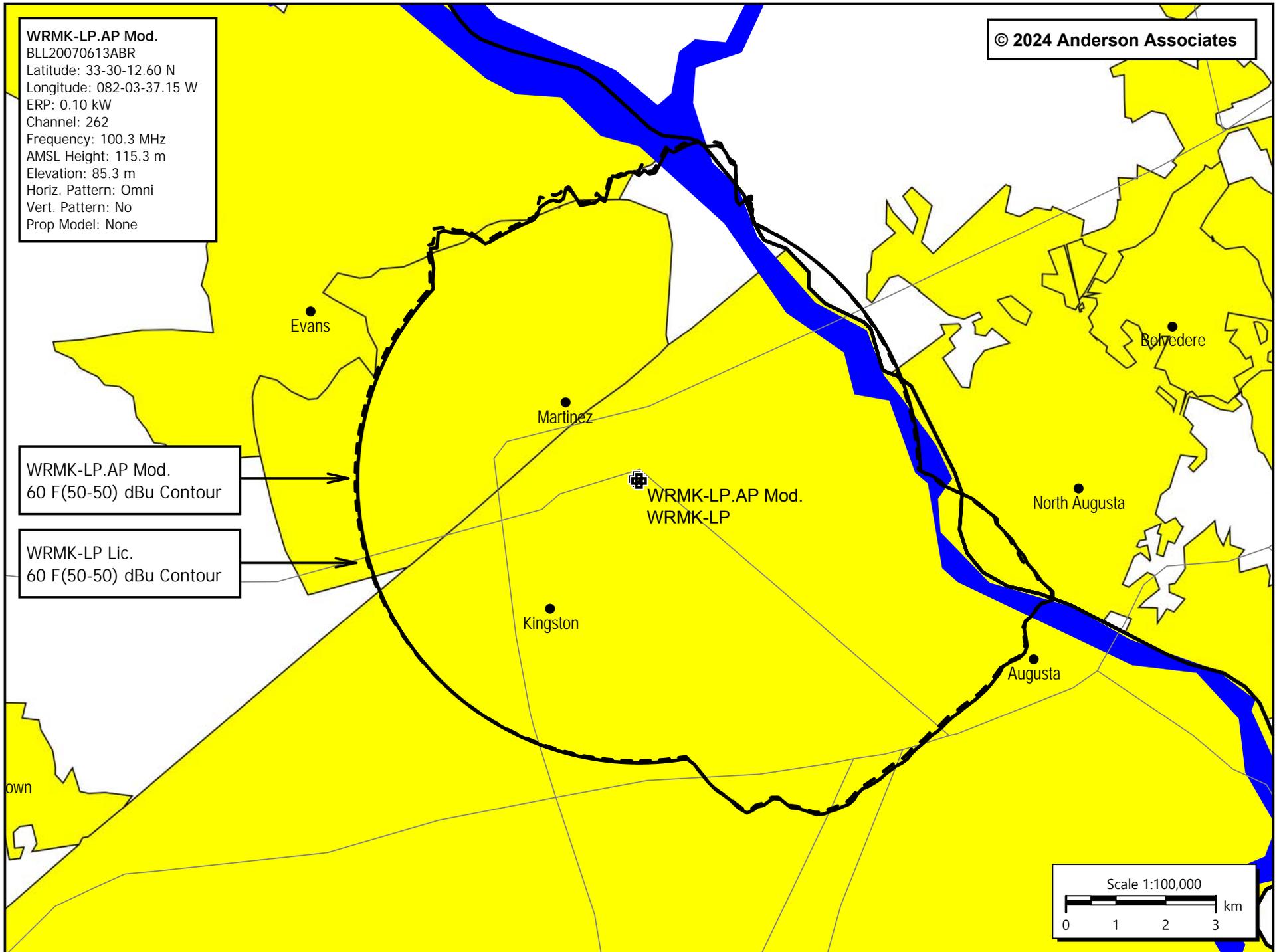
E-3 WRMK 262 LP100.AP Mod. HAAT

N. Lat. = 333012.6 W. Lng. = 820337.2
HAAT and Distance to Contour,
FCC, FM 2-10 Mi, 51 pts Method - FCC 30 Meter

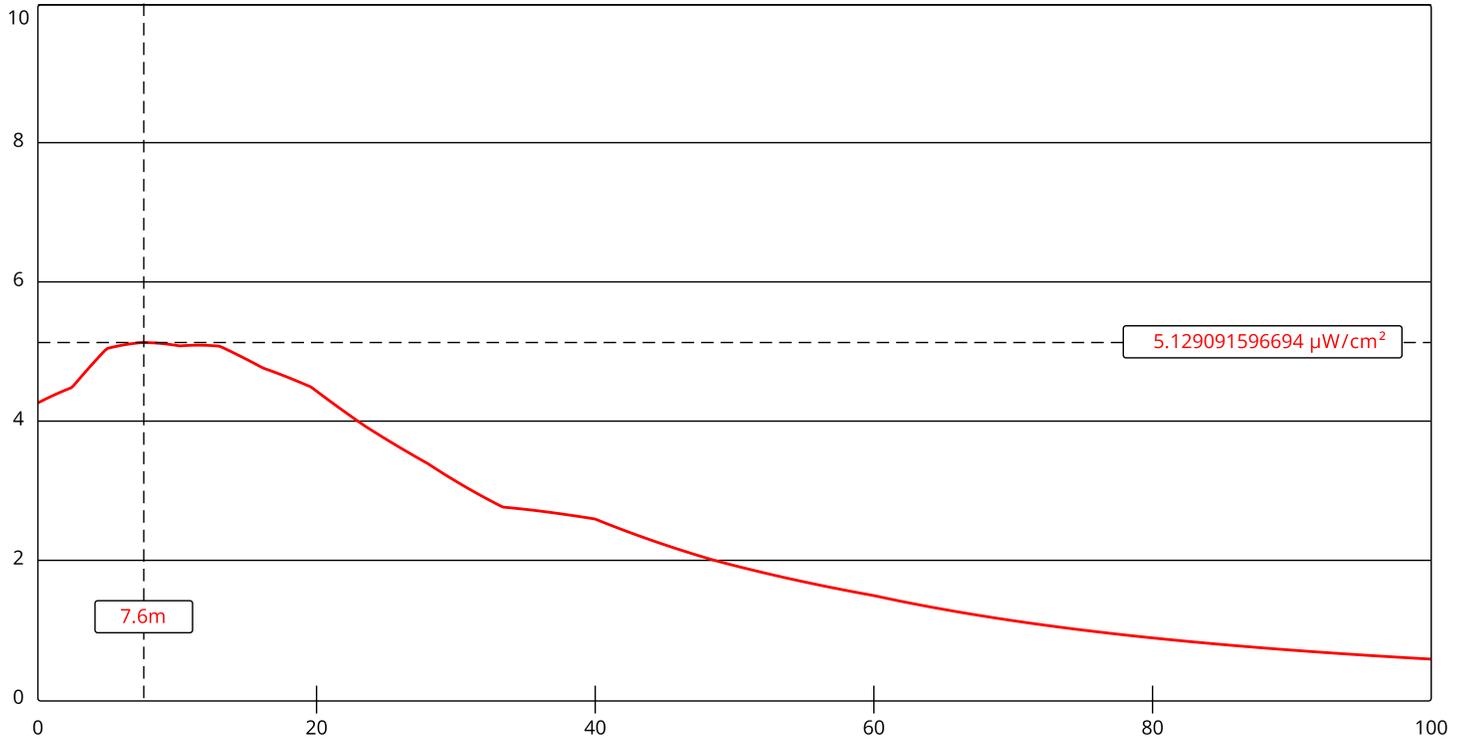
Azi.	AV EL	HAAT	ERP kW	60-F(50-50)
000	79.7	35.6	0.1000	6.09
045	103.9	11.4	0.1000	5.64
090	81.1	34.2	0.1000	5.97
135	59.2	56.1	0.1000	7.71
180	99.3	16.0	0.1000	5.64
225	120.0	-4.7	0.1000	5.64
270	109.8	5.5	0.1000	5.64
315	82.6	32.7	0.1000	5.86

Ave El= 91.94 M HAAT= 23.36 M AMSL= 115.3

E-4 WRMK 226-LP100.AP Mod. 60 F(50-50) dBu Contour Plot



E-5 WRMK-LPFM 262 LP100.AP Mod. RF Calculation



Channel Selection	Channel 262 (100.3 MHz) ▼		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other" ▼		
Height (m)	30	Distance (m)	100
ERP-H (W)	100	ERP-V (W)	100
Num of Elements	1	λ	1
Num of Points	500		