

## **Comprehensive Technical Statement**

Matadors, LLC

Minor Modification to Construction Permit # BNPFT-20181105AAX

W274CH, FCC Facility ID # 202539, Meridian, MS

### **Introduction**

The following changes are proposed:

- Transmitter location
- Effective radiated power
- Antenna height, type, and model

### **Data Sources**

Distances were calculated using the FCC method defined in 73.208 of the Commission's Rules.

All contours shown in this report were generated using antenna center above mean sea level, NAD-83 coordinates, and the USGS03 terrain dataset

Dates shown on the maps represent the last change date in the LMS downloads in use at the time this statement was prepared.

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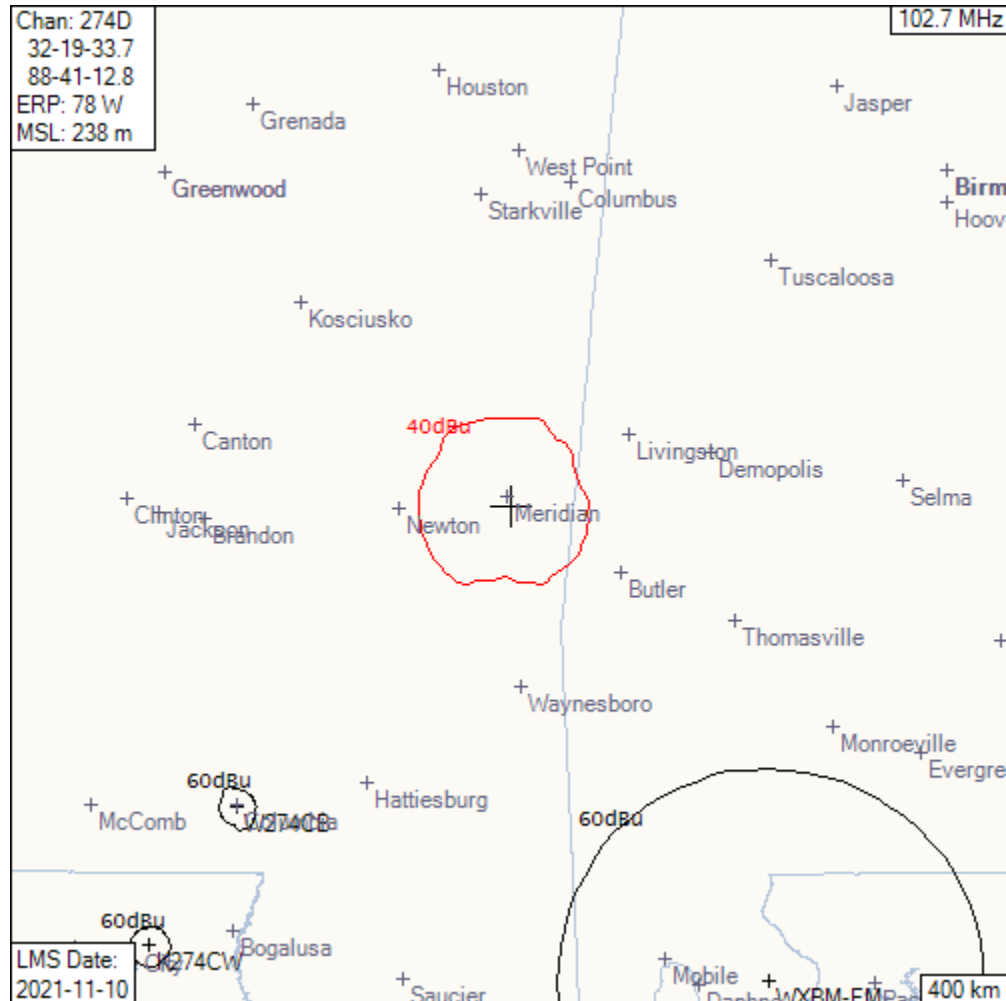
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## Detailed Interference Study

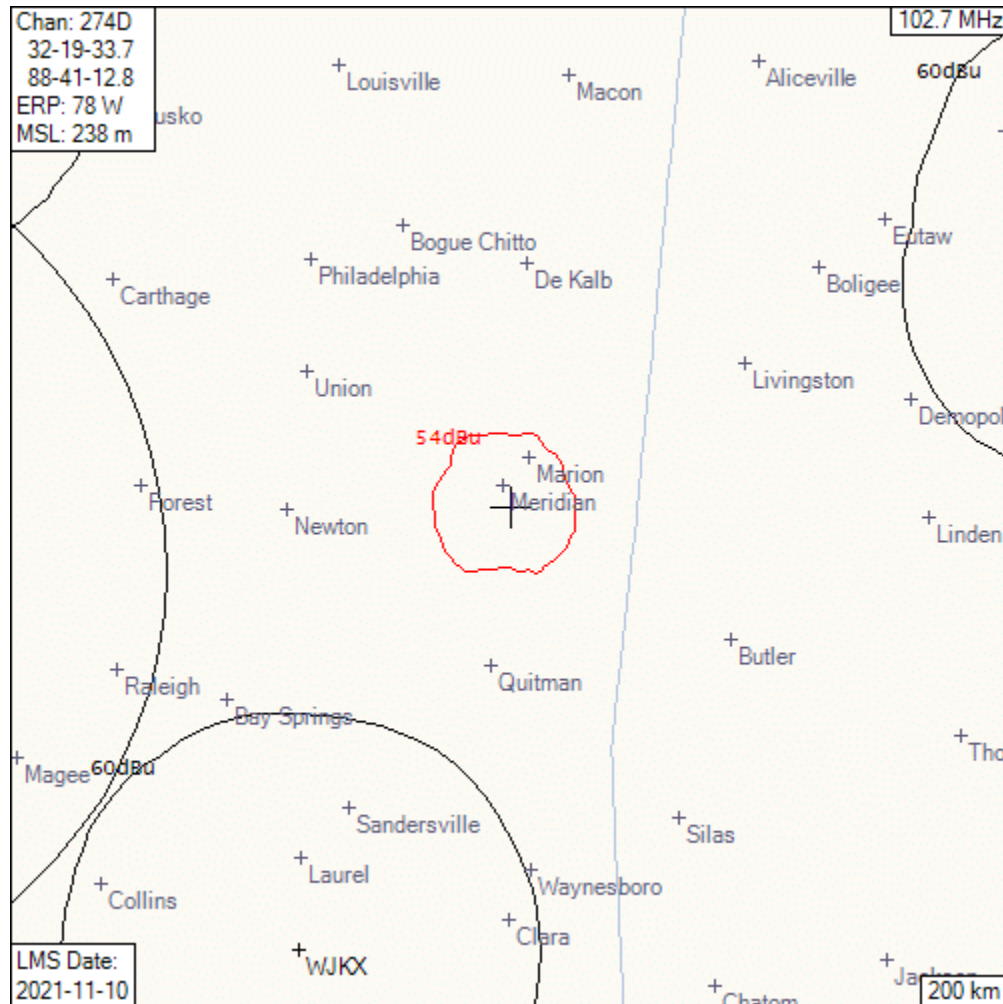
The following collection of maps and the narrative accompanying each show that no prohibited overlap will occur between the proposed facility and any potentially conflicting facility or proposal. Interfering f(50,10) contours are shown as red polygons, and protected f(50,50) contours are shown as black polygons.

**Map 1 – Co-channel Outbound Interference**



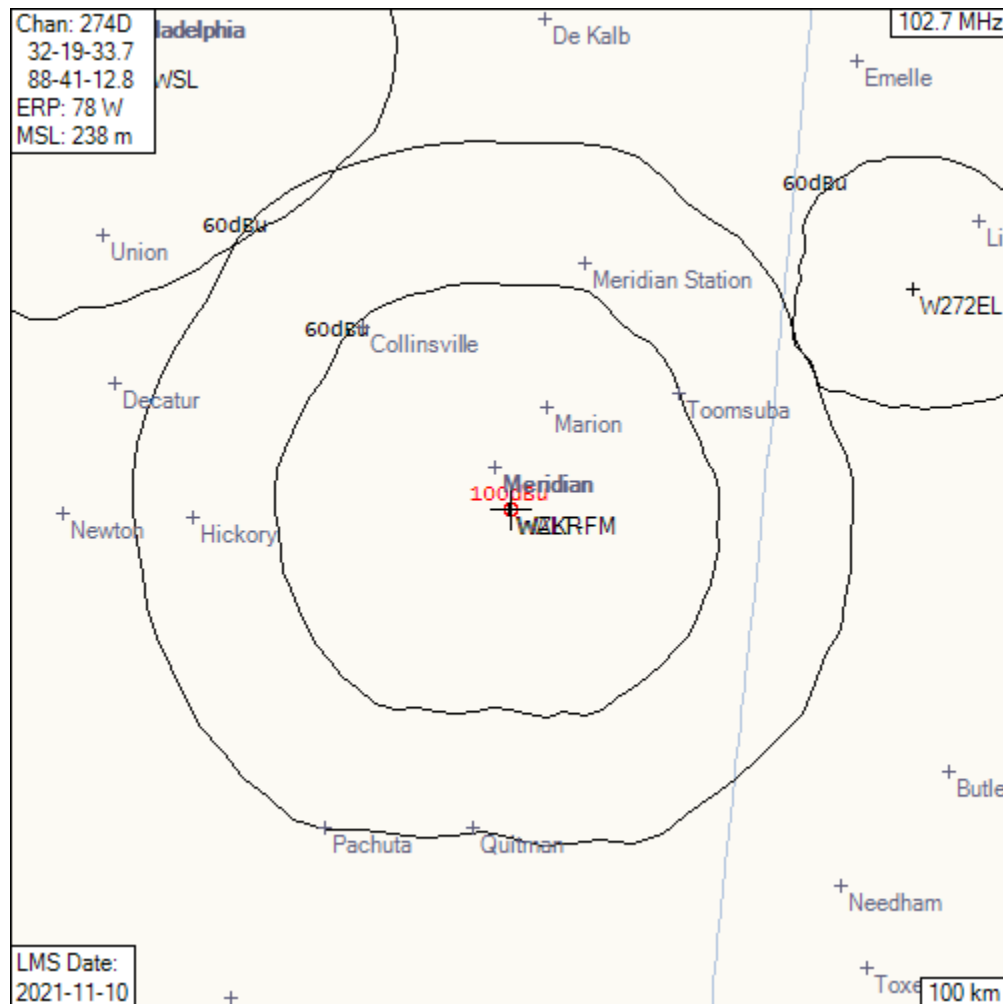
There is no overlap of the interfering contour with the protected contour of any station or proposal.

## Map 2 – First Adjacent Outbound Interference



There is no overlap of the interfering contour with the protected contour of any station or proposal.

### Map 3 – Second/Third Adjacent Outbound Interference Detail



The proposed site is effectively co-located with third-adjacent stations WALT-FM (FCC Facility ID # 18229) and WZKR (FCC Facility ID # 76435).

The signal of WALT-FM, which is located on a tower 150 m from the proposed tower, is 122.96 dBu.

WZKR is above the proposed antenna on the same tower, and its free-space signal is approximately 140 dBu.

The interfering signal level is  $122.96 + 40.0 = 162.96$  dBu. With the proposed 78 W ERP, the free-space distance to 196.62 dBu is 0.4 m. Since the antenna will be centered 40.8 m above the ground, it is clear that no third adjacent interference will be caused in any habitable location.

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## **IF Separation requirements**

There are no IF separation requirements with respect to translator proposals with less than 100 W ERP.

## **Channel 6 Interference**

The proposed facility is not on a channel that is implicated in channel 6 interference.

## **International**

The FM Agreements with Canada and Mexico require evaluation and potential coordination of any proposal within 320 km of the border.

The distance to the nearest point along the US/Canada border is 1,167 km. Coordination with Canada is not required.

The distance to the nearest point along the US/Mexico border is 1,082 km. Coordination with Mexico is not required.

## **Quiet Zones**

The proposed site is outside the National Radio Quiet Zone (National Radio Astronomy Observatory Notification Area) in West Virginia.

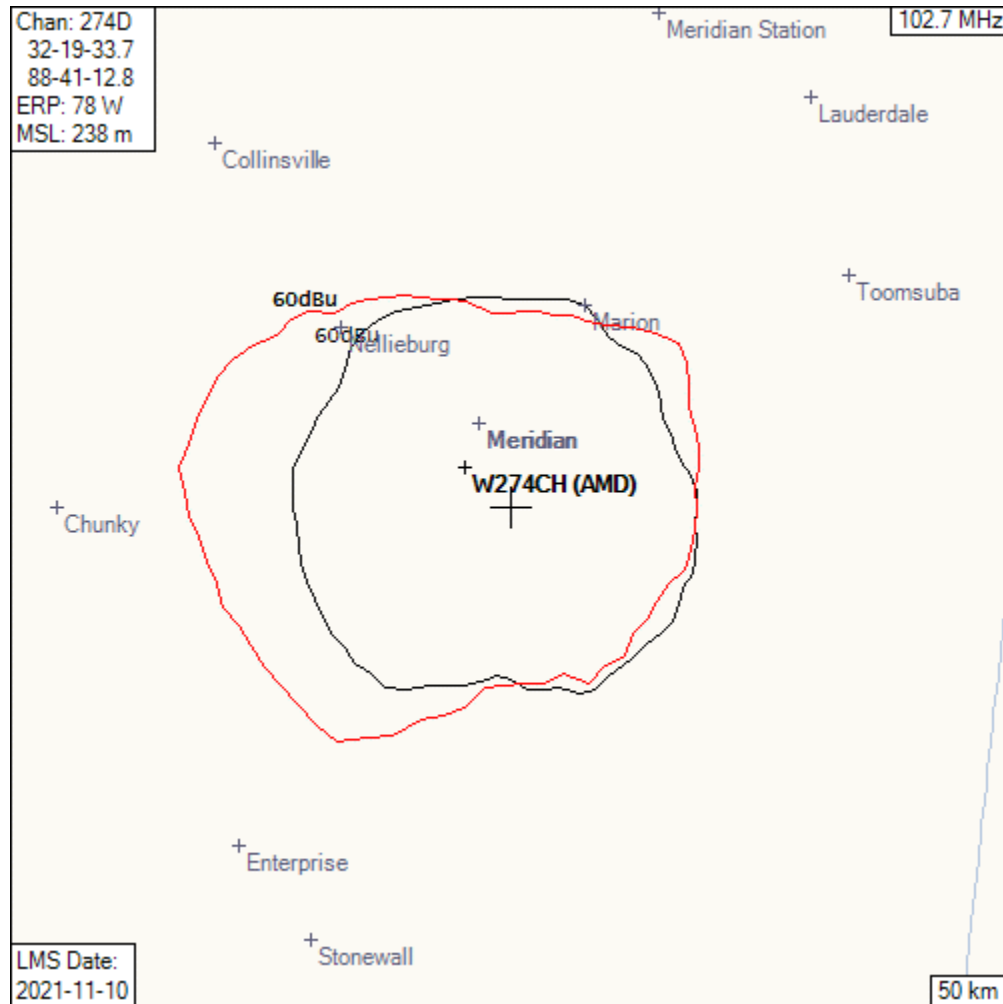
The proposed site is outside the Arecibo Observatory notification area in Puerto Rico.

The proposed site is not within a 100 km extension of the Table Mountain Radio Receiving Zone in Colorado.

## **Protected Monitoring Stations**

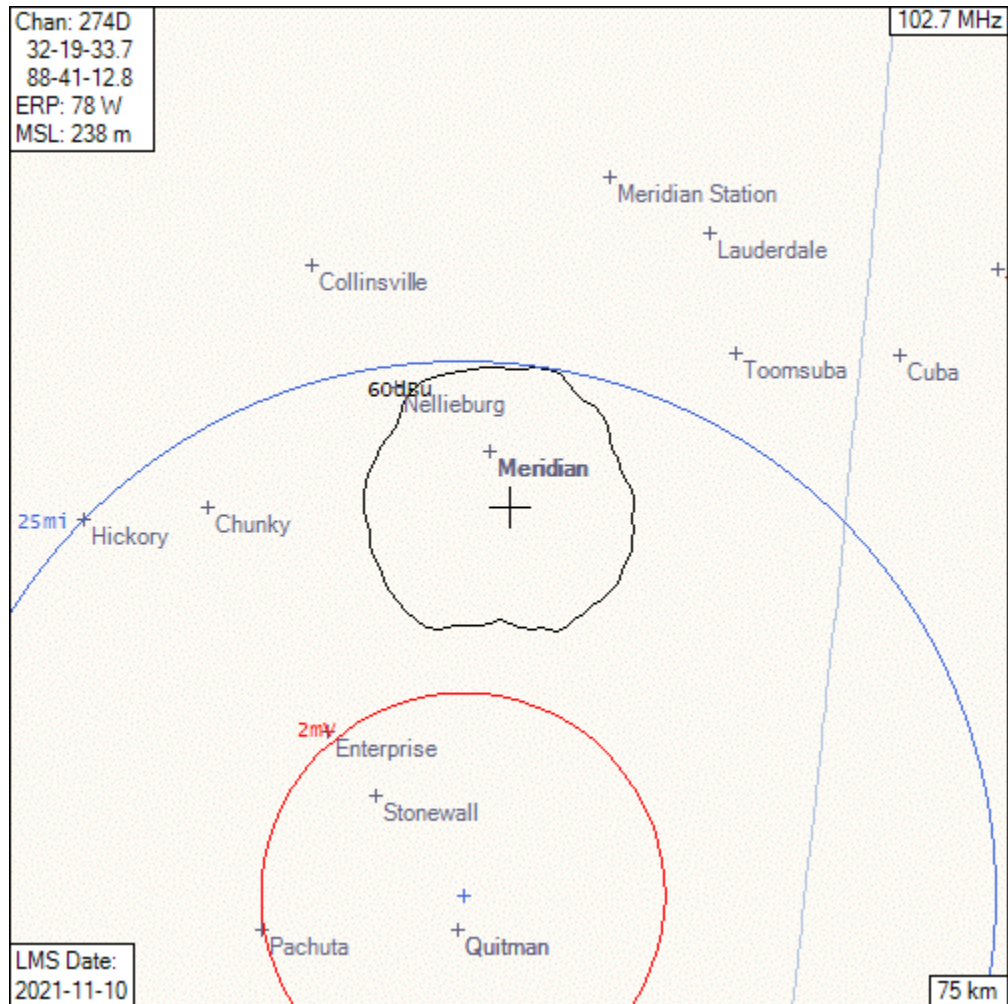
The nearest Protected Monitoring Station is 406 km distant, in Powder Springs, GA. This is well beyond any potential 80 dBu contour.

## Minor Change



The 60 dBu contour of the Construction Permit is shown as a red polygon. The proposed 60 dBu contour is shown as a black polygon. The polygons intersect. No change in frequency is proposed. Therefore, the proposal is for a minor change.

## Fill-In Translator



The proposed primary station is WQMS (AM), FCC Facility ID # 54325, Quitman, MS.

The proposed 60 dBu f(50,50) contour is shown as a black polygon. The WQMS 2 mV/m contour is shown as a red polygon. The 25 mile circle around the WQMS transmitter is shown in blue.

The proposed 60 dBu f(50,50) contour falls entirely within the 25 mile circle. The translator is commonly owned with the primary station. The proposal therefore qualifies as fill-in service.

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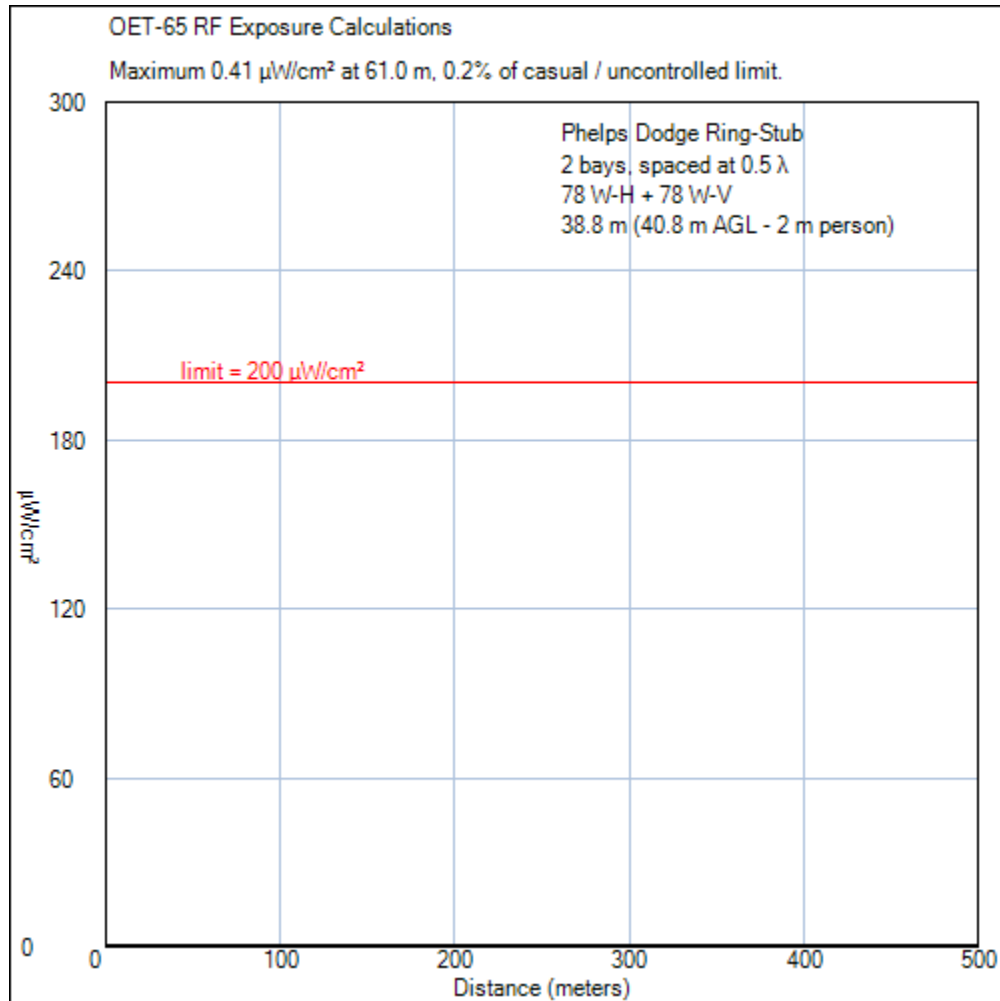
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## Environmental

The proposed site is an existing tower, ASR # 1212542. No construction, excavation, or increase to the height of the tower is proposed.

The proposed effective radiated power is 78 W-H + 78 W-V. The antenna will be mounted 40.8 m above ground level.

Assuming the worst-case OET Type 1 antenna model, the OET-65 algorithm returns a maximum exposure of less than 1% of the limit for casual / uncontrolled exposure:



Appropriate access controls and safety signage are provided. The applicant agrees to coordinate with other users of the site to reduce power or shut down in order to protect workers at the site.



## LMS Engineering Data

Channel	274
Coordinates (NAD-83)	32 19 33.7 N Lat 88 41 12.8 W Lon
ASR	1212542
Overall Tower Height AGL	126.5 m
Site Elevation AMSL	197.2 m
Radiation Center AGL	40.8 m
Effective Radiated Power	78 W-H + 78 W-V
Antenna type	Non-Directional
Primary Station	Call Sign      WQMS Facility ID    54325 City, State    Quitman, MS
Delivery Method	Other (Terrestrial) or as appropriate
Antenna	
Manufacturer	Shively
Model XXXXXX	6812B
# Sections	2
Section spacing	0.5

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