

# COMPREHENSIVE TECHNICAL EXHIBIT

## Discussion

Applicant seeks an LPFM Construction Permit for:

Cornelia, GA

Channel 262 (100.3 Mhz), See **Figure 3** Channel Study

ERP = .006 kW (See **Figure 2**)

Ground Elevation = 483 meters

RCAGL = 9.2 meters

RCAMSL = 492.2 meters

HAAT = 121 meters (Globe terrain data) (See **Figure 1**)

Overall Tower Height = 9.3 meters

FAA (TOWAIR study), See **Figure 4**

NAD83 Latitude: 34 30 19.7N; Longitude: 83 31 32.4W

No AM station notifications required: Closest AM Facility is WCON, CORNELIA, GA, L, ND1 at 313.6° at a distance of 1.7 km

Facility is okay with respect to FCC monitoring stations.

Closest FCC Monitoring Station is 131.5 km= Powder Springs, GA

Facility is okay toward West Virginia Quiet Zone. Distance to center = 560.9 km

Facility is okay toward Table Mountain. Distance to Center = 2023.6 km, Azimuth = 294.5 Degrees True

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## HAAT CALCULATION (FCC HAAT Calculator)

### [Antenna Height Above Average Terrain Calculations -- Results](#)

#### Input Data

Latitude **34° 30' 19.7"** North

Longitude **83° 31' 32.4"** West (NAD 83)

Height of antenna radiation center above mean sea level: **492.2** meters AMSL

Number of Evenly Spaced Radials = **360** 0° is referenced to True North

#### Results

Calculated HAAT = **121 meters**

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

**FIGURE 1**



**Input protection of any relevant FM Translators or Boosters**

There are two (2) FM translator authorizations within 10 km of the proposed LPFM transmitter site (see **Figure 4**), however, the proposed frequency (channel 262) does not occupy the 3rd adjacent channel to the primary station off-air input of any of the nearby translators. Thus the Application complies with the provisions of 73.827(a).

**CORNELIA, GA FM TRANSLATORS/BOOSTERS WITHIN 10 KM OF PROPOSED CHANNEL 262**

FCC ID	DISTANCE (km)	Translator INPUT	Primary CHANNEL
W299AT	1.3	Off-air	AM
W232DU	1.29	Off-air	AM

**FIGURE 4**

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**TOWAIR study**

**DETERMINATION Results**

**Structure does not require registration. The structure meets the 6.10-meter (20-foot) Rule criteria.**

**Your Specifications**

**NAD83 Coordinates**

Latitude	34-30-19.7 north
Longitude	083-31-32.4 west

**Measurements (Meters)**

Overall Structure Height (AGL)	9.3
Support Structure Height (AGL)	6.1
Site Elevation (AMSL)	483

**Structure Type**

BMAST - Building with Mast

**Figure 5**

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**RF EXPOSURE**

The proposed single bay Type 2 antenna will be mounted 9.2 meters above ground level radiating 6 (six) watts H & V. FMMModel predicts a maximum ground level exposure of 2.13 uW/cm<sup>2</sup> at 7.4 meters from the base of the tower, well within limits for uncontrolled access. All occupied structures in the immediate surrounding area are single story.