

**Affiliated Media Foundation Movement****FCC Form 318****Low Power FM Application****Demonstration of Non-Interference / Request for Waiver**

Reference 47 C.F.R. Sections 73.807, 73.809, 73.811, 73.853; Public Law 111-371

**Introduction**

There are currently no FM channels in the proposed listening area which meet the initial minimum distance separation standards outlined in 47 CFR §73.807. Under the provisions of the Local Community Radio Act of 2010 (Public Law 111-371) §3(a) and 3(b)(2), we hereby apply for a waiver to allow a “short-spaced” station to operate on a second-adjacent channel.

At the location chosen for the Affiliated Media Foundation Movement (hereinafter referred to as *AMFM*) low-power FM transmitter (see *Figure 1*), twelve FM channels have the potential for a second-adjacent waiver, but only six of these have interference overlap contours (“prohibited zones”) sufficiently small enough to be practical. Of these, we have selected Channel 225, 92.9 MHz as the best choice for our proposed LPFM station.

Because Channel 225 is short-spaced to Class C licensee WQUE on Channel 227, 93.3 MHz, we have completed further analysis to determine that the interference contour is sufficiently small enough to preclude interference to WQUE and to merit a second-adjacency waiver.

***Figure 1***

Proposed location of AMFM LPFM station.

Municipal address:

2839 North Robertson St.

New Orleans, LA 70117

NAD 27 Coordinates:

29° 58' 20.5" N Latitude

90° 02' 46.5" W Longitude

## Methodology

The metropolitan New Orleans area is essentially flat and—depending upon exact location—at or slightly above or below sea level (HAAT, AMSL, and AGL are usually within two meters of being the same figure). This greatly simplifies VHF radio coverage projections which, when using an omnidirectional antenna, are generally circular.

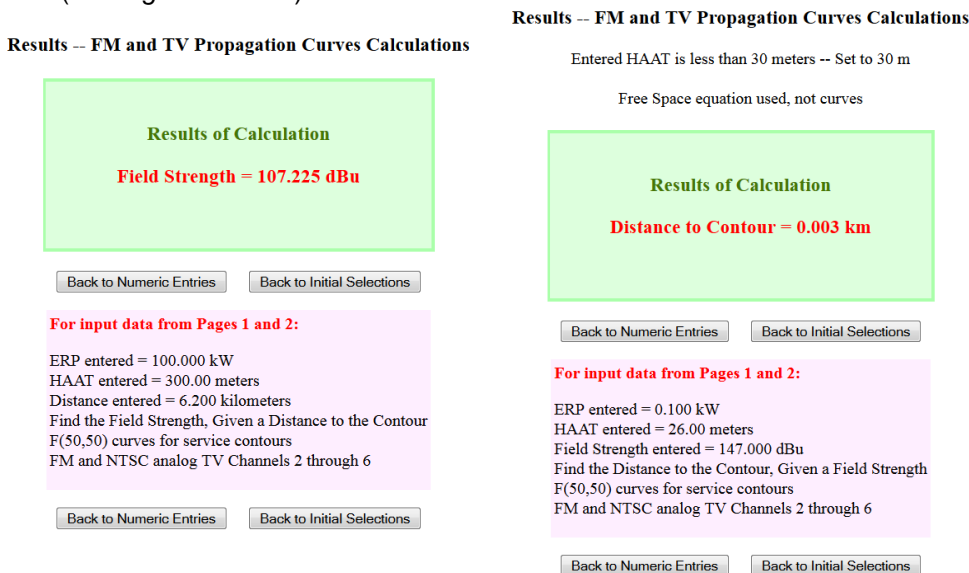
WQUE is located at 29° 55' 12.36329" N Latitude, 90° 01' 28.24587" W Longitude (NAD 27) which puts that station **6.2 km** from the proposed AMFM LPFM station.

Using the FCC on-line CURVES calculator<sup>1,2</sup>, we can predict the Field Strength produced by WQUE's 100 kW transmitter and 300 meter high antenna as being 107.225 dBu at 6.2 km, the distance at which the proposed AMFM LPFM will be located (see *Figure* below). By adding 40 dBu, we can determine the LPFM field strength contour predicted to cause interference:

$$107.225 \text{ dBu} + 40 \text{ dBu} = 147.225 \text{ dBu}^{1,2}$$

Rounding this interference contour to 147 dBu, we can again use the FCC CURVES calculator to predict that a proposed LPFM station operating with Effective Radiated Power of 100 watts (0.1 kW) and an antenna height of 26 meters HAAT<sup>2</sup>, has a potential interference overlap zone of 0.003 km, or approximately 3 meters (see *Figure 2* below).

**Figure 2**



On-line FCC Curves Calculator results predicting field strength of WQUE at proposed AMFM LPFM location (left) and potential interference zone (right).<sup>1,2,3</sup>

Because the interference overlap area ("prohibited zone") falls entirely in an uninhabited area on the roof of the proposed transmitter site, Channel 225 should produce no interference to WQUE on Channel 227. Also, because the antenna will be affixed to an approximately 5 meter mast that raises it above the baseline of the roof, its overall height will be sufficient to preclude interference even to potential listeners in the top floor of the building.

<sup>1</sup> FCC Curves Calculator web page: <http://transition.fcc.gov/mb/audio/bickel/curves.html>

<sup>2</sup> FCC HAAT Calculator web page: [http://transition.fcc.gov/mb/audio/bickel/haat\\_calculator.html](http://transition.fcc.gov/mb/audio/bickel/haat_calculator.html)

<sup>3</sup> At distances less than or equal to 1.5 km, free-space equation used



**Figure 3.** Google Maps screenshot showing planned AMFM transmitter site. Green circle is a prediction of expected 3m “prohibited zone”. Expected antenna mounting location shown.

### **Additional Information**

**Affected Translators:** There are no relevant translators (inputs or outputs) within range of the proposed LPFM station that would be affected.

**Channel 6 Television Stations:** Per 47 C.F.R. § 73.825, Channel 6 interference should not be a factor for a station operating on Channel 225. Also, after the conversion to digital television, there are no longer any Channel 6 TV stations operating in this area.

**Nearby AM Stations:** No local AM broadcast stations would be affected by installation of the proposed LPFM antenna.

**Interference to Non-Broadcast Radio Services:** While the LPFM transmitter and antenna may potentially be located in the vicinity of cellular telephone equipment, good engineering practices make the likelihood of interference to these services from a 100 watt LPFM transmitter exceedingly small, if at all.

### **Conclusions**

The Affiliated Media Foundation Movement, Inc. has determined that FM Channel 225 (92.9 MHz) can be used at their proposed transmitting site. While a second adjacency waiver would be necessary, AMFM has demonstrated that use of this channel by a Low Power FM station will not cause harmful interference to the reception of any second-adjacent stations, in particular WQUE on Channel 227 (93.3 MHz). AMFM certifies that upon installation of the LPFM transmitter, it will (a) abide by all relevant provisions of 47 C.F.R. § 73.80 regarding interference complaints, and (b) conduct regular tests and measurements to insure that no interference exists.