

Preclusion Showing Exhibit

Long Form Application

Facility ID 139698


This "Long Form" application requests a minor modification from the "as filed" application BNPFT-20030314BQJ technical section specifying a new transmit location that is in the grid of Nashville, Tennessee, a Spectrum Available Top 50 Market. As this proposal could preclude an LPFM licensing opportunity in the Nashville, Tennessee grid, a "Grid Test" is required. Because the proposal is not in, or within the buffer zone of, any "Spectrum Limited" market, a "Top-50 Transmitter Site Test" is not required.

The proposed facility is to be 50 meter above ground level with an effective radiated power of 250 watts upon a tower identified by registration number 1038210. Data from this registration was used in the FCC "Antenna Height Above Average Terrain ("HAAT") Calculator" web-tool to determine a standard 12 radial HAAT of 107 meters, as shown in Figure 1. This was then used in the FCC "Propagation Curves Calculations" web-tool to derive the distance to the 60 dBu contour of 13.299 km, as shown in Figure 2.

The most recent version of the "LPFM Grid Tool" was utilized to develop the "Grid Point" locations depicted in Figure 3. The only channel possibly impacted by this application is 253, a first adjacent channel. Consulting 73.807 the required spacing distance between an LPFM (LP100) facility and a translator with a 60 dBu contour distance of 13.299 km was determined to be 21 km.

The material grid point locations of Figure 3 were transferred the microcomputer program "Probe 4" for a more accurate display of 21 km preclusion radii. The proposed location was also input, and the results are given as Figure 4, demonstrating that this proposal will not preclude an LPFM licensing opportunity in the Nashville, Tennessee grid.

Figure 1. Antenna Height Above Average Terrain Calculations



Federal Communications Commission

Audio Division

(202)-418-2700

FCC Home | Search | Updates | E-Filing | Initiatives | For Consumers | Find People

Antenna Height Above Average Terrain (HAAT) / Contour Calculations

[FCC](#) > [MB](#) > [Audio Division](#) > [HAAT/Contour Calculations](#)

[FCC site map](#)

Antenna Height Above Average Terrain Calculations -- Input

Latitude **36 2 55.8 North**
Longitude **86 43 22.0 West** (NAD 27)

Height of antenna radiation center above mean sea level [RCAMSL] = **298.0** meters

Number of Evenly Spaced Radials = 12 0° is referenced to True North

Results:

Calculated HAAT = 107. meters

(Antenna Height Above Average Terrain)
using the 30 second FCC/NGDC terrain data)

Antenna Radiation Center Heights Above Individual Radials:

0.0°	153.6 meters
30.0°	143.6 meters
60.0°	140.3 meters
90.0°	125.3 meters
120.0°	106.1 meters
150.0°	102.2 meters
180.0°	74.1 meters
210.0°	62.2 meters
240.0°	60.4 meters
270.0°	73.6 meters
300.0°	109.4 meters
330.0°	134.9 meters

[New Antenna Height Above Average Terrain \(HAAT\) calculation?](#)

[FCC Home](#) | [Search](#) | [RSS](#) | [Updates](#) | [E-Filing](#) | [Initiatives](#) | [Consumers](#) | [Find People](#)

Federal Communications Commission
445 12th Street SW
Washington, DC 20554
[More FCC Contact Information...](#)


Phone: 1-888-CALL-FCC (1-888-225-5322)
TTY: 1-888-TELL-FCC (1-888-835-5322)
Fax: 1-866-418-0232
E-mail: fccinfo@fcc.gov

[Privacy Policy](#)
[Website Policies & Notices](#)
[Required Browser Plug-ins](#)
[Freedom of Information Act](#)

transition for: nuffco-bin/haat_calculator?rlat=36&rlat=02&slat=55.8&rs=1&rlon=86&rlon=43&slon=22.0&rs=1&rc=27&rcamsl=298&radials=8&radials=1

1/1

Figure 2. Propagation Curves Calculations



Federal Communications Commission

FCC Home | Search | Updates | E-Filing | Initiatives | For Consumers | Find People

Audio Division
(202)-418-2700

FM and TV Propagations Curves Calculations

[FCC > MB > Audio Division > FM and TV Curves Calculations](#) [FCC site map](#)

Results -- FM and TV Propagation Curves Calculations

Results of Calculation

Distance to Contour = 13.299 km

[Back to Numeric Entries](#) [Back to Initial Selections](#)

For input data from Pages 1 and 2:

ERP entered = 0.250 kW
HAAT entered = 107.00 meters
Field Strength entered = 60.000 dBu
Find the Distance to the Contour, Given a Field Strength
F(50,50) curves for service contours
FM and NTSC analog TV Channels 2 through 6

[Back to Numeric Entries](#) [Back to Initial Selections](#)

Comments on this program may be referred to [Dale Bickel](#)

[FCC Home](#) | [Search](#) | [RSS](#) | [Updates](#) | [E-Filing](#) | [Initiatives](#) | [Consumers](#) | [Find People](#)

If you would like more information pertaining to the Media Bureau, please call: (202) 418-7200.

Federal Communications Commission
445 12th Street SW

Phone: 1-888-CALL-FCC (1-888-225-5322)
TTY: 1-888-TELL-FCC (1-888-

- [Privacy Policy](#)
- [Website Policies & Notices](#)
- [Required Browser Plug-ins](#)

transition for: nuffrc-hin/fm/cur?l=1&k=1&s=1&f=1&c=2&p=501&a= 250&h=107&c=60

1/2

Figure 3. LPFM Grid Tool Results ½

Nashville, TN
Latitude 36-09-57
Longitude 086-47-04
Grid Size 31 x 31
Micro FM 100 Watts at 30m HAAT
Co-Channel and 1st Adjacent Protected
2nd Adjacent Channel Protected
3rd Adjacent Channel Not Protected
I.F. Not Protected
TV Channel 6 Not Protected
CP Records Protected
APP Records Protected
FM Translators Protected
TV Channel 6 Translators/LP Not Protected
Auc83 FX App Records Protected

Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail
200	0	220	0	240	0	260	0	280	18
201	0	221	0	241	0	261	0	281	0
202	0	222	0	242	0	262	0	282	0
203	0	223	0	243	0	263	0	283	0
204	0	224	0	244	0	264	3	284	0
205	0	225	0	245	0	265	0	285	0
206	0	226	0	246	0	266	0	286	75
207	0	227	0	247	0	267	0	287	21
208	0	228	0	248	0	268	0	288	0
209	0	229	0	249	0	269	155	289	0
210	0	230	0	250	0	270	96	290	0
211	0	231	0	251	0	271	0	291	0
212	0	232	0	252	0	272	0	292	0
213	0	233	0	253	85	273	0	293	0
214	0	234	0	254	0	274	0	294	0
215	0	235	0	255	0	275	0	295	0
216	0	236	0	256	17	276	0	296	0
217	0	237	0	257	0	277	0	297	0
218	0	238	0	258	0	278	0	298	0
219	0	239	0	259	0	279	0	299	0
								300	0

Total	470								

Total allotments, least preclusive spacing: 16
Total allotments, most preclusive spacing: 14

Figure 3-Cont. LPFM Grid Tool Results 2/2

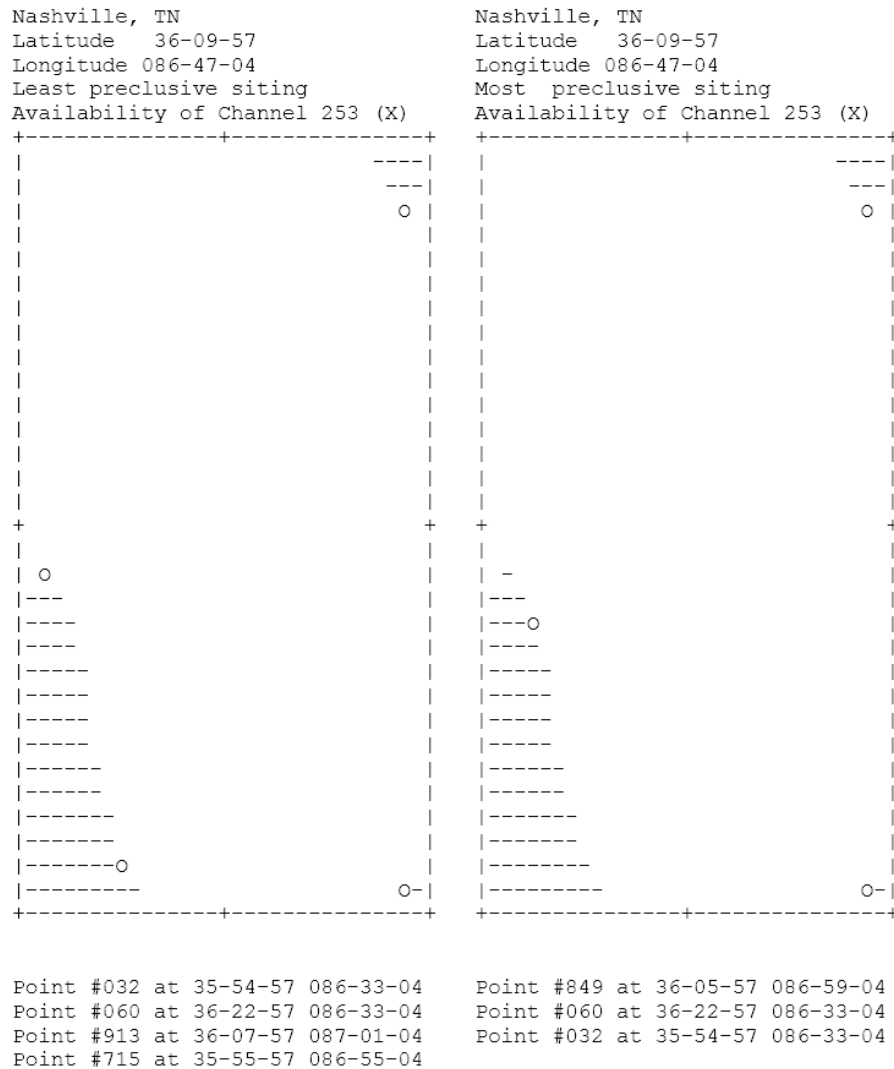


Figure 4 Preclusion Area and Proposed Location Map

