Preclusion Showing Exhibit

Long Form Application

Facility ID 140115

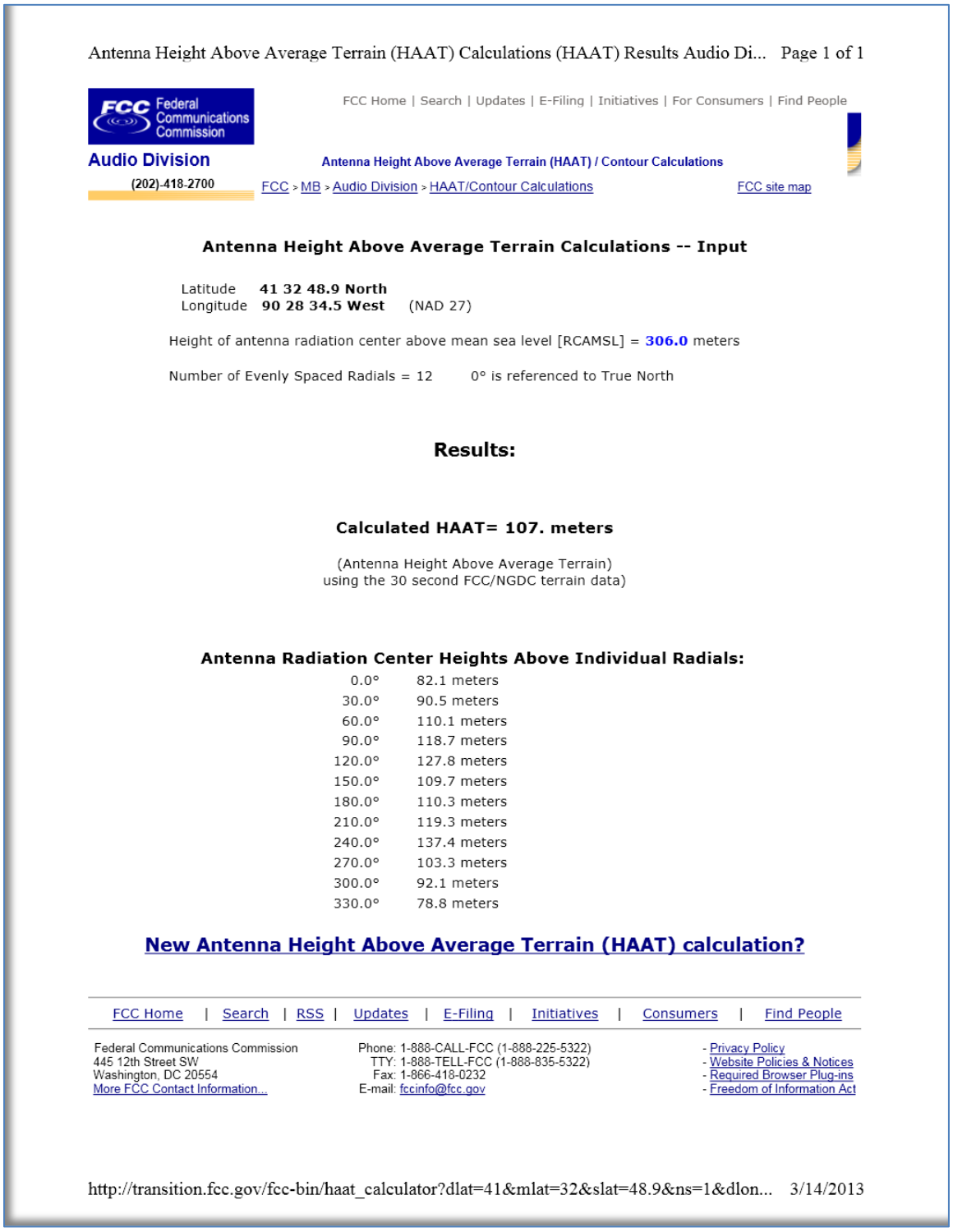
This "Long Form" application requests a minor modification from the "Short Form" application BNPFT-20030317ASB technical section specifying a new transmit antenna and elevation with no change in location in the grid of Quad Cities (Davenport-Rock Island-Moline), a Spectrum Available Market. As this proposal could preclude an LPFM licensing opportunity in the Quad Cities (Davenport-Rock Island-Moline) 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 103 meter above ground level with an effective radiated power of 250 watts upon a tower identified by registration number 1035417. 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 channels possibly impacted by this application are 241 and 243, each 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 "Comstudy" for a more accurate display of 21 km preclusion radius. 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 Quad Cities (Davenport-Rock Island-Moline) grid.

Figure 1. Antenna Height Above Average Terrain Calculations



Antenna Height Above Average Terrain (HAAT) Calculations (HAAT) Results Audio Di... Page 1 of 1

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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 **41 32 48.9 North**
Longitude **90 28 34.5 West** (NAD 27)

Height of antenna radiation center above mean sea level [RCAMSL] = **306.0** 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°	82.1 meters
30.0°	90.5 meters
60.0°	110.1 meters
90.0°	118.7 meters
120.0°	127.8 meters
150.0°	109.7 meters
180.0°	110.3 meters
210.0°	119.3 meters
240.0°	137.4 meters
270.0°	103.3 meters
300.0°	92.1 meters
330.0°	78.8 meters

New Antenna Height Above Average Terrain (HAAT) calculation?

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E-mail: fccinfo@fcc.gov

- Privacy Policy
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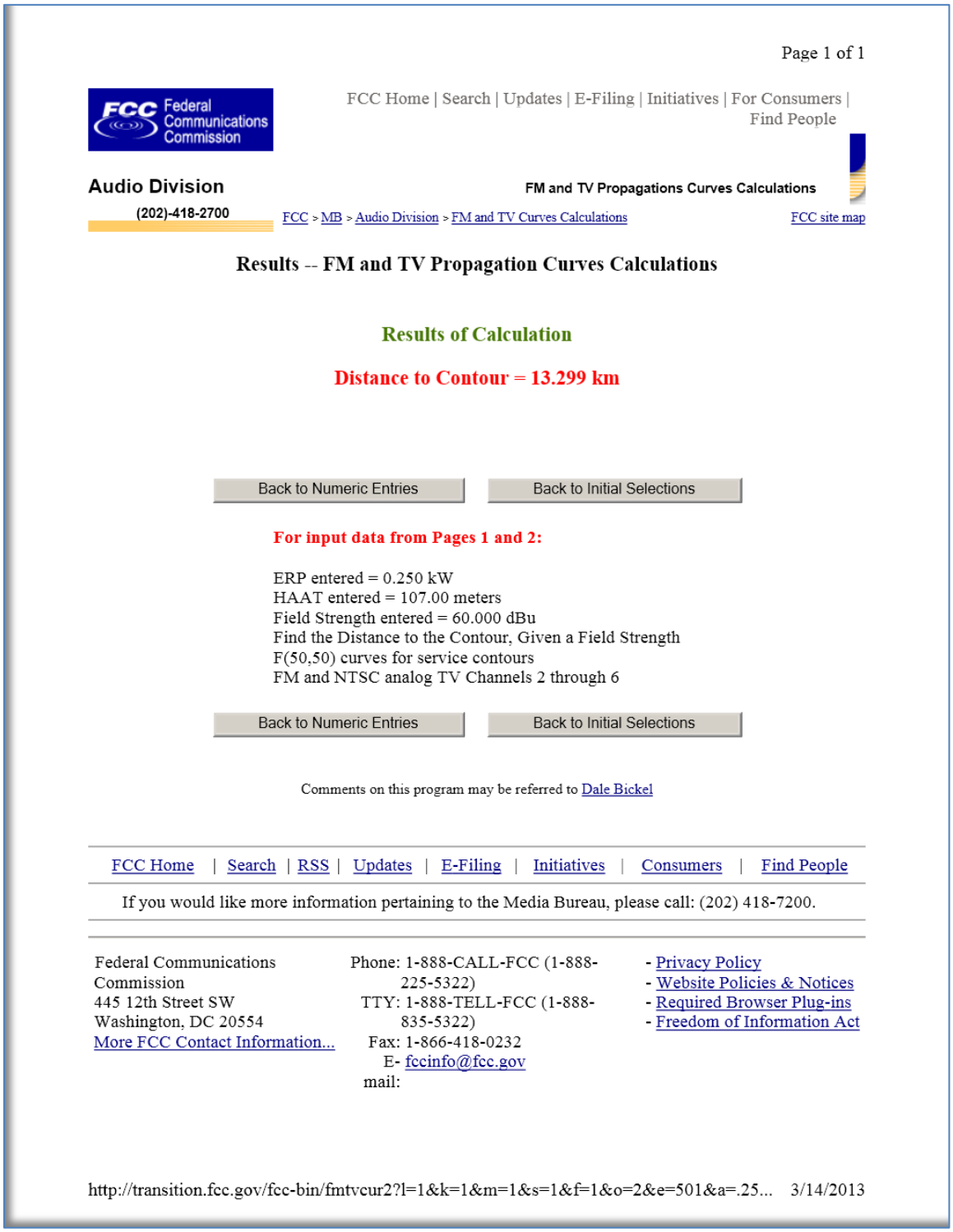
- Freedom of Information Act

http://transition.fcc.gov/fcc-bin/haat_calculator?dlat=41&mlat=32&slat=48.9&ns=1&dlon... 3/14/2013

Figure 2. Propagation Curves Calculations



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FM and TV Propagations Curves Calculations

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

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

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Figure 3. LPFM Grid Tool Results ½

Quad Cities, IA IL
Latitude 41-31-25
Longitude 090-34-39
Grid Size 21 x 21
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	0
201	0	221	0	241	0	261	0	281	0
202	0	222	197	242	0	262	0	**282**	**16**
203	0	223	1	243	0	263	0	***283***	***0***
204	0	224	66	244	0	264	0	**284**	**0**
205	0	225	3	245	0	265	0	285	0
206	0	226	0	246	0	266	0	286	0
207	0	227	0	247	0	267	0	287	0
208	0	228	0	248	0	268	0	288	0
209	0	229	0	249	5	269	0	289	0
210	0	230	0	250	0	270	103	290	12
211	0	231	0	251	1	271	0	291	0
212	0	232	3	252	1	272	0	292	0
213	0	233	0	253	0	273	0	293	0
214	0	234	0	254	0	274	0	294	0
215	0	235	0	255	0	275	108	295	0
216	0	236	0	256	0	276	377	296	110
217	0	237	0	257	0	277	0	297	9
218	0	238	25	258	0	278	0	298	109
219	0	239	0	259	0	279	0	299	185
								300	33

Total 1364

Total allotments, least preclusive spacing: 34
Total allotments, most preclusive spacing: 26

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

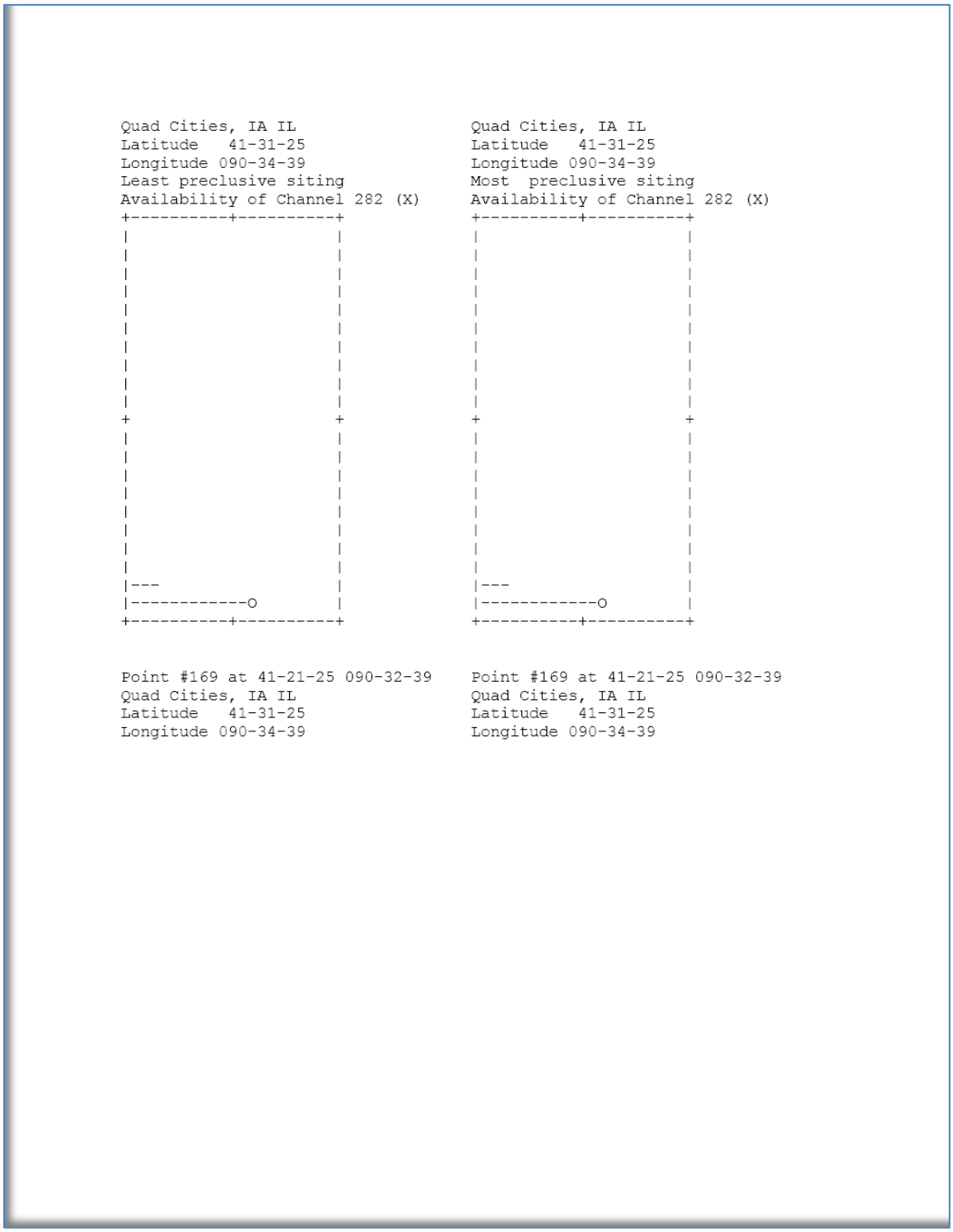

Figure 4. Grid/Point and Proposed Location Map