

File Number BNPFT-20030314AWG

Fayetteville, North Carolina

Application for New FM Translator

On Channel 232

by

Bible Broadcasting Network, Inc.

Exhibit 1

Grid Preclusion Showing

March 2013

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Declaration

I declare, under penalty of perjury, that I am a technical consultant to broadcasting and other communications systems, that I have over twenty-five years of experience in the engineering of broadcast and other communications systems, that I am familiar with the Federal Communications Commission's Rules found in the Code of Federal Regulations Title 47, that I am a Professional Engineer registered in North Carolina, that I have prepared or supervised the preparation of the attached Exhibit 1, Grid Preclusion Showing, for Bible Broadcasting Network, Inc., and that all of the facts therein, except for facts of which the Federal Communications Commission may take official notice, are true to the best of my knowledge and belief.



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20 March 2013

Narrative

This Exhibit supports a long form Auction 83 construction permit application for an FM translator on Channel 232 in Fayetteville, North Carolina, file number BNPFT-20030314AWG. The tech box proposal (short form application) was filed in a filing window for Auction 83. This Exhibit provides a preclusion showing required in a Public Notice¹ of a window to file long form applications for further processing.

This application proposes a minor modification from the original short form application. Specifically, the third adjacent channel is proposed, the primary station to be rebroadcast is changed, antenna make and model is changed, height is reduced, and the effective radiated power is decreased. The minor modification creates no conflicts with any other Auction 83 tech box proposals, as shown in the Allocations Exhibit.

Required Showings

This facility is located inside the Market Grid of the Fayetteville (North Carolina) market. The Fayetteville market is listed as a Spectrum Available Market using a 20 minute grid in Appendix B of the Fourth Report and Order.² The required showing is identified as Test C, in Attachment B to the Singleton Window PN.

¹ *Public Notice Media Bureau Announces FM Translator Auction 83 Filing Window and Filing Procedures*, DA 13-283, released February 26, 2013. (Singleton PN)

² *In the Matter of Creation of a Low Power Radio Service, Amendment of Service and Eligibility Rules for FM Broadcast Translator Stations, Fourth Report and Order and Third Order on Reconsideration*, FCC 12-19, released March 19, 2012.

This facility is in the Fayetteville Appendix A Market. It is not within 39 kilometers of any other Appendix A Market. It is not within any out-of-grid Top 50 Spectrum Limited Market.

The Fayetteville market protected channel/point combinations were generated using the Commissions LPFM grid tool. A portion of the printout from the LPFM grid tool follows. The preliminary section confirms the parameters studied and provides a summary of the channels. There are no protected points on channel 232, proposed in this application, or on channels + or - 2 channels. No I.F. channel protection is required.

LPFM Grid Study Parameters and Overall Results

Fayetteville, NC
 Latitude 35-03-09
 Longitude 078-52-43
 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 Protected
 CP Records Protected
 APP Records Protected
 FM Translators Protected
 TV Channel 6 Translators/LP Protected
 Auc83 FX App Records Protected

Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail
200	0	220	0	240	0	260	43	280	0
201	0	221	0	241	0	261	179	281	0
202	0	222	0	242	0	262	261	282	0
203	0	223	100	243	0	263	70	283	0
204	0	224	0	244	0	264	0	284	0
205	0	225	0	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	2	248	61	268	0	288	0
209	0	229	0	249	0	269	0	289	0
210	0	230	0	250	0	270	26	290	0
211	0	231	0	251	0	271	20	291	0
212	0	232	0	252	0	272	0	292	0
213	0	233	0	253	0	273	10	293	0
214	0	234	0	254	0	274	139	294	0
215	0	235	0	255	0	275	7	295	0
216	0	236	9	256	0	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	165	279	0	299	0
									300
									0

Total		1092							

Total allotments, least preclusive spacing: 22
 Total allotments, most preclusive spacing: 19

Note: Co-channel through second adjacent channel points shown highlighted above.

Translator Height Above Average Terrain and Distance to Contour

The proposed translator facilities Height Above Average Terrain for the 12 radials used for translators is 39.0 meters. The corresponding distance to the 60 dBu F(50,50) contour is 5.18 kilometers, using the FM Curves utility on the Audio Division website. This translator falls in the smallest classification for separation requirements in 47 C.F.R. §73.807(d)(1). The required separation for co-channel operation is 26 kilometers. No co-channel, first adjacent or second adjacent protected channel/point LPFM licensing opportunities were identified by the LPFM Grid Study program.

Preclusion Study Description

Figure 1 shows the relationship of the proposed facilities to the Fayetteville market. This facility as proposed in the short form filing is plotted with its Application ID, 630865. The 60 dBu F(50,50) contour (dashed colored line) is shown. The proposed modified facilities are identified as 630865m. The proposed 60 dBu F(50,50) contour is shown as a solid colored line.

A dotted line shows the 26 kilometer radius circle where the proposed translator facilities could preclude an LPFM opportunity.

Source of Data

Transmitter location, effective radiated power, directional antenna pattern, and elevation data are extracted from the Commission's CDBS. All contours for existing and

proposed facilities are calculated using height above average terrain calculated at one degree horizontal increments.

The contours were evaluated using terrain extracted from the V-Soft Communications NED 03 terrain database. The NED 03 database is derived from the USGS National Elevation Data 30 meter terrain database.

630865.A
BNPFT20030314AWG
Latitude: 35-03-16 N
Longitude: 078-52-42 W
ERP: 0.055 kW
Channel: 229 93.7 MHz
AMSL Height: 80.0 m
Elevation: 27.0 m
Horiz. Pattern: Omni
Vert. Pattern: No

630865m
BNPFT20030314AWG
Latitude: 35-01-01 N
Longitude: 078-48-33 W
ERP: 0.03 kW
Channel: 229 93.7 MHz
AMSL Height: 76.0 m
Elevation: 30.0 m
Horiz. Pattern: Omni
Vert. Pattern: No

**Fayetteville North Carolina
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Preclusion Showing
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Figure 1**

Timothy L. Warner, Inc.

