

Balsam, North Carolina
Long Form Application for FM Translator 641046
File Number BNPFT-20030314CIA
On Channel 253
by
Western North Carolina Public Radio, Inc.

Exhibit 13
Interference Analysis

October 2013

© 2013 Western North Carolina Public Radio, Inc.

Timothy L. Warner, Inc.
Post Office Box 8045
Asheville, North Carolina 28814-8045
(828) 258-1238
twarner@tlwinc.net

Table of Contents

| Description | Page |
|------------------------------------|----------|
| Declaration | 2 |
| Narrative..... | 3 |
| Allocations | 3 |
| Table 1: Allocations..... | 4 |
| Source of Data..... | 5 |
| Proposed And Primary Contours..... | Figure 1 |

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 13, Interference Analysis, for Western North Carolina Public Radio, 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.



Timothy L. Warner, P.E.
Post Office Box 8045
Asheville, North Carolina 28801
(828) 258-1238
twarner@tlwinc.net
23 October 2013

Narrative

This Exhibit supports a long form application for CDBS application ID 641046, an original “Tech Box” application in response to a filing window¹ for FM translator file number BNPFT-20030314CIA, on Channel 253 in Balsam, North Carolina. Allocation details are provided in this exhibit. The application proposes no change from the tech box filing.

This proposal creates no new mutual exclusivities with any Auction 83 Tech Box filings or any other facility. Because this application proposes the original 2003 facilities, no preclusion showing is provided.

Figure 1 shows the proposed 60 dBu F(50,50) coverage area. The primary station WFQS 60 dBu F(50,50) contour is also shown.

Allocations

This application proposes service to Balsam, North Carolina, on channel 253. An updated Table 1: Allocations is included in this exhibit with a list of the stations, construction permits, allocations, and applications studied. All are protected by this application.

¹ *Public Notice, Media Bureau Announces FM Translator Auction 83 Filing Window and Filing Procedures, October 9, 2013 Deadline Set for Form 349 Applications for Certain Non-Mutually Exclusive Tech Box Proposals*, Report No. AUC-03-83-F, DA13-1871, released September 9, 2013.

Table 1: Allocations

| Allocation Study | | | | | | | | | | | |
|---|--|-------|--------------|----------------|---------------------------|--------------------------|--------------------|-------------------|-------------------------------------|-------------------------|--------|
| Western North Carolina Public Radio, Inc. | | | | | | | | | | | |
| REFERENCE | CH# 253D - 98.5 MHZ, Pwr= 0.01 kW DA, HAAT= 723.8 M, COR= 1849 M | | | | | | | | DISPLAY DATES | | |
| 35 27 43.0 N. | Average Protected F(50-50)= 15.0 km | | | | | | | | DATA 10-23-13 | | |
| 83 06 26.0 W. | Standard Directional | | | | | | | | SEARCH 10-23-13 | | |
| CH CITY | CALL | TYPE | ANT STATE | AZI. <-- | DIST FILE # | LAT. LNG. | Pwr(kw) HAAT(M) | INT(km) COR(M) | PRO(km) LICENSEE | *IN* (Overlap in km) | *OUT* |
| 253C Kingsport | WTFM | APP | ZCY TN | 38.7 219.3 | 138.64 BPH20130528AKF | 36 25 53.0 82 08 16.0 | 74.000 683 | 198.5 1305 | 92.5 Holston Valley Broadcasting | -71.6* | 1.0 |
| One Step Application | | | | | | | | | | | |
| 253C Kingsport | WTFM | LIC | ZCY TN | 38.7 219.3 | 138.68 BLH19950213KA | 36 25 54.0 82 08 15.0 | 74.000 683 | 198.4 1305 | 92.5 Holston Valley Broadcasting | -71.5* | 1.1 |
| 253C Kingsport | WTFM | RSV-A | TN | 32.1 212.7 | 167.31 | 36 43 59.0 82 06 28.0 | 100.000 600 | 198.1 1224 | 91.5 Holston Valley Broadcasting | -41.6* | 41.3 |
| One Step Application | | | | | | | | | | | |
| 253D Balsam | 641046 | APP | DC NC | 0.0 0.0 | 0.00 BNPFT20030314CIA | 35 27 43.0 83 06 26.0 | 0.010 724 | 10.2 1849 | 1.4 Western North Carolina Pub | -11.6* | -11.6* |
| Tech Box application for which this is the long form application. | | | | | | | | | | | |
| 254D Bryson City | 1563403 | APP | C NC | 261.4 81.2 | 36.12 BNPFT20030314CHX | 35 24 47.0 83 30 02.0 | 0.009 | 18.1 1055 | 11.5 Western North Carolina Pub | 3.0 | 0.3 |
| 254D Bryson City | 1569544 | APP | C NC | 261.4 81.2 | 36.12 BNPFT20130830ALX | 35 24 47.0 83 30 02.0 | 0.009 | 18.1 1055 | 11.5 Western North Carolina Pub | 3.0 | 0.3 |
| 255C Spartanburg | WSPA-FM | LIC | C SC | 113.5 293.9 | 80.98 BLH19991026ACQ | 35 10 11.0 82 17 28.0 | 100.000 580 | 10.6 1016 | 75.0 Entercom Kansas City Licen | 55.2 | 5.6 |
| 255C Spartanburg | WSPA-FM | CP | CX SC | 113.5 293.9 | 80.98 BPH20130415ABG | 35 10 11.0 82 17 28.0 | 100.000 581 | 10.6 1016 | 75.0 Entercom Kansas City Licen | 55.2 | 5.6 |
| One Step Application | | | | | | | | | | | |
| 253D Ariat | W253BG | LIC | C SC | 132.4 312.8 | 86.70 BLFT20130116AEJ | 34 56 05.0 82 24 16.0 | 0.250 | 66.9 619 | 22.2 Ted A McCall | 6.6 | 22.3 |
| 251D Clyde | 1567467 | APP | DC NC | 56.7 236.8 | 21.59 BNPFT20130805ACM | 35 34 05.5 82 54 28.1 | 0.005 | 0.0 1377 | 2.5 Georgia-carolina Radiocast | 8.6 | 16.0 |
| 251D Clyde | 1557062 | APP | DC NC | 56.7 236.8 | 21.59 BNPFT20030317EPV | 35 34 05.5 82 54 28.1 | 0.005 | 0.0 1377 | 2.5 Georgia-carolina Radiocast | 8.6 | 16.0 |
| 252C2 Oliver Springs | WOKI | APP | ZCX TN | 303.1 122.5 | 103.44 BPH20130528AKK | 35 57 55.0 84 04 10.0 | 45.000 159 | 80.9 456 | 54.4 Radio License Holding Cbc, | 9.1 | 30.7 |
| One Step Application | | | | | | | | | | | |
| 252C2 Oliver Springs | WOKI | RSV-A | TN | 308.6 128.1 | 106.49 | 36 03 21.0 84 01 56.0 | 50.000 150 | 81.0 469 | 53.0 Radio License Holding Cbc, | 12.9 | 36.8 |
| One Step Application | | | | | | | | | | | |
| 251C0 Williamston | WHZT | LIC | CX SC | 172.7 352.8 | 86.61 BLH20120905ACG | 34 41 15.0 82 59 13.0 | 100.000 304 | 9.6 554 | 69.1 Sm-whzt, LLC | 67.9 | 17.1 |
| 255D Franklin | 1563629 | APP | C NC | 220.4 40.3 | 36.60 BNPFT20030317JVJ | 35 12 39.7 83 22 07.4 | 0.040 | 0.4 679 | 4.4 Charisma Radio Corp. | 22.2 | 32.0 |
| 255D Franklin | 1569649 | APP | C NC | 220.4 40.3 | 36.60 BNPFT20130828ADC | 35 12 39.7 83 22 07.4 | 0.040 | 0.4 679 | 4.4 Charisma Radio Corp. | 22.2 | 32.0 |
| 251C1 Williamston | WHZT | CP | ZCX SC | 151.5 331.8 | 95.93 BPH20121213AAA | 34 42 07.0 82 36 19.0 | 93.000 308 | 9.6 572 | 70.1 Sm-whzt, LLC | 75.5 | 25.7 |

Terrain database is NED 03 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
 In & Out distances between contours are shown at closest points. Reference Zone= East Zone, Co to 3rd adj.
 All separation margins (if shown) include rounding
 Ant column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
 "*"affixed to 'IN' or 'OUT' values = site inside protected contour.

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.

All population data is from 2010 U.S. Census PL data files. Population is counted by considering the location of the centroid of each census block. The data for each block is counted if it falls within the area being counted.

