Hendersonville, North Carolina

Long Form Application for a New FM Translator

BNPFT-20030317GVQ

On Channel 300

by

Western North Carolina Public Radio, Inc.

Exhibit 13

Interference Analysis

March 2013

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

Table of Contents

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
28 March 2013

Narrative

This Exhibit supports a long form application in response to a filing window[1] for FM translator file number BNPFT-20030317GVQ, CDBS application ID 649550, on Channel 300 in Hendersonville, North Carolina. Allocation details are provided in this exhibit. The application proposes minor modification changes from the tech box filing. Specifically, the primary station is changed, the site is changed, the power is increased, height is decreased, and the status is changed to fill-in.

This proposal creates no new mutual exclusivities with any Auction 83 Tech Box filings.

Figure 1 shows the tech box 60 dBu F(50,50) coverage area, and the proposed 60 dBu F(50,50) coverage area. This application proposed a minor modification of the Tech Box facilities. The primary station WCQS 60 dBu F(50,50) contour is also shown.

Allocations

This application proposes service to Hendersonville, North Carolina, on channel 300. 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*, DA13-283, released February 26, 2013. (Singleton Notice)

Table 1: Allocations

```
                                    Allocation Study
                           Western North Carolina Public Radio, Inc.
REFERENCE            CH# 300D - 107.9 MHz, Pwr= 0.25 kW,  HAAT= 23.4 M,  COR= 732 M     DISPLAY DATES
35 23 48.0 N.                  Average Protected F(50-50)= 7.1 km                       DATA   03-28-13
82 29 29.0 W.                         Omni-directional                                 SEARCH 03-28-13
------------------------------------------------------------------------------------------------------
CH    CALL      TYPE  ANT    AZI.   DIST          LAT.        Pwr(kW)   INT(km) PRO(km)   *IN*      *OUT*
CITY                STATE    <--     FILE #        LNG.        HAAT(M)  COR(M)  LICENSEE  (Overlap in km)
------------------------------------------------------------------------------------------------------
300C  WLNK      LIC   CX    91.4   118.58        35 21 51.0   100.000  189.4   86.0     -80.2*      3.4
Charlotte             NC   272.1   BMLH20050728ALG  81 11 13.0   516      763  Greater Media Charlotte In

299C  WIVK-FM   LIC   CX   293.8   116.24        35 48 41.0   91.000   137.9   92.2     -32.2*      9.2
Knoxville             TN   113.1   BLH20081017ABY   83 40 10.0   633     1014  Radio License Holding Cbc,

300D  649550    APP   C    194.8    10.01        35 18 34.0   0.010    33.4    10.0     -31.7*     -23.8*
Hendersonville        NC    14.8   BNPFT20030317GVQ  82 31 11.0   258      963  Western North Carolina Pub
         Tech Box applicationfor which this is the long form application.

297C0 WJMZ-FM   LIC   C    187.7    77.76        34 42 07.0   100.000  9.1     67.9     58.3        8.8
Anderson              SC     7.6   BMLH20010628AAA   82 36 19.0   308      544  Cox Radio, Inc.
Downgraded from Class C to C0 09/09/2008.

297C0 WJMZ-FM   CP    NCX  166.3    85.52        34 38 51.0   100.000  10.0    71.8     63.7       12.6
Anderson              SC   346.5   BPH20120905ACH    82 16 13.0   313      553  Cox Radio, Inc.

298D  W298AY    LIC   C     26.9    28.93        35 37 44.0   0.010    0.2     7.1      20.1       20.0
Black Mountain        NC   207.0   BLFT20070808ACI   82 20 46.0    77     1010  Western North Carolina Pub

247D  632628«   APP   C    294.1    37.21        35 31 58.0   0.105    8.1     39.6     9.5R       27.7M
Canton                NC   113.9   BNPFT20030317AHL  82 51 58.0     1      933  Saga Communications Of Nor

299D  649571    APP   C    195.5    57.28        34 53 57.0   0.010    10.9    7.2      36.5       39.5
Pickens               SC    15.4   BNPFT20030317KWE  82 39 35.0   197      523  Tabernacle Baptist College

246D  W246BU«   LIC   C    132.3    69.59        34 58 26.0   0.250    8.1     39.6     9.5R       60.1M
Spartanburg           SC   312.7   BLFT20100108ACP   81 55 37.0    58      291  Ted A Mccall

297D  W243BX    CP    DC    65.3    87.89        35 43 21.6   0.250    0.5     15.8     80.3       71.0
Valdese               NC   245.9   BPFT20121214ADO   81 36 28.2            691  Radio Training Network, In

300D  W300CC    CP    C     13.3   107.05        36 20 06.0   0.250    23.8    7.1      74.7       72.1
Elizabethton          TN   193.5   BPFT20120927AED   82 12 55.0            649  Cb Radio, Inc.
------------------------------------------------------------------------------------------------------
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.
« = Station meets FCC minimum distance spacing for its class.
```

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 also 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.

649550
BNPFT20030317GVQ
Latitude: 35-18-34 N
Longitude: 082-31-11 W
ERP: 0.01 kW
Channel: 300 107.9 MHz
AMSL Height: 963.0 m
Elevation: 945.0 m
Horiz. Pattern: Omni

649550m
Long Form Application
Latitude: 35-23-48 N
Longitude: 082-29-29 W
ERP: 0.25 kW
Channel: 300 107.9 MHz
AMSL Height: 732.0 m
Elevation: 725.0 m
Horiz. Pattern: Omni

WCQS
BLED19931012KA
Latitude: 35-35-23 N
Longitude: 082-40-26 W
ERP: 1.60 kW
Channel: 201 88.1 MHz
AMSL Height: 1100.0 m
Elevation: 1074.0 m
Horiz. Pattern: Directional

Hazelwood, North Carolina
BNPFT-20030314CHY
Tech Box and Proposed Contours
Figure 1
March 2013

Timothy L. Warner, Inc.

McDowell
Woodfin
Black Mountain
WCQS
Asheville
Buncombe
Swannanoa

Royal Pines
Proposed F(50-50) 60.00 dBu
Fletcher
649550m

Henderson

Rutherford
Spindale

WCQS F(50-50) 60.00 dBu

Hendersonville
649550

East Flat Rock

Polk

Tech Box F(50-50) 60.00 dBu

Brevard

Transylvania

Landrum

Scale 1:425,000
km
0   5   10   15

V-Soft Communications LLC ® ©
Boiling Springs