BNPFT-201070801AHB

DeForest, Wisconsin

Long Form Application

For New FM Translator

On Channel 255

by

Magnum Communications, Inc.

Exhibit 13

Interference Analysis

November 2017

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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 13, Interference Analysis, for Magnum Communications, 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.
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Asheville, North Carolina 28801
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twarner@tlwinc.net
30 November 2017

Narrative

This Exhibit supports a long form application for FM translator BNPFT-201070801AHB, on Channel 255 in DeForest, Wisconsin. Allocation details are provided in this exhibit. This proposal complies fully with the requirements of 74 C.F.R. §74.1204(a). The proposed modified facilities create no mutual exclusivities with any licensed facilities, construction permits, or applications as shown in the allocation table in this exhibit.

Figure 1 shows the original short form 60 dBu F(50,50) and the proposed 60 dBu F(50,50) coverage area. Figure 1 shows fill-in status confirmation.

This is a long form application in response to a Media Bureau Public Notice announcing an FM Translator filing window for long-form applications[1]. The short form application, File Number BNPFT-201070801AHB, application reference number 1763527, is listed in Attachment A of that Notice.

The changes from the Tech Box parameters in the original application are rounding coordinates to the nearest second, correcting the elevations to match the tower owner's data, reduced height, and a different directional antenna. This application complies with the requirement that it propose facilities which do not change in ways which are not permissible for a minor modification.

Allocations

This application proposes service to DeForest, Wisconsin, on channel 255. An updated Table 1: Allocations is included in this exhibit with a list of the stations, construction permits,

[1] See *Public Notice: MEDIA BUREAU ANNOUNCES FM TRANSLATOR FILING WINDOW FOR LONG-FORM APPLICATIONS, DA 17-1069,* released November 1, 2017.

allocations, and applications studied. All are protected under §74.1204(a) contour protection by this application. The allocations table was prepared using the GLOBE 30 terrain database which is described below.

Table 1: Allocations

Allocation Study
Magnum Communications, Inc.

REFERENCE — CH# 255D - 98.9 MHz, Pwr= 0.25 kW DA, HAAT= 35.8 M, COR= 335 M — DISPLAY DATES
43 15 23.0 N. — Average Protected F(50-50)= 7.7 km — DATA 11-30-17
89 20 27.0 W. — Standard Directional — SEARCH 11-30-17

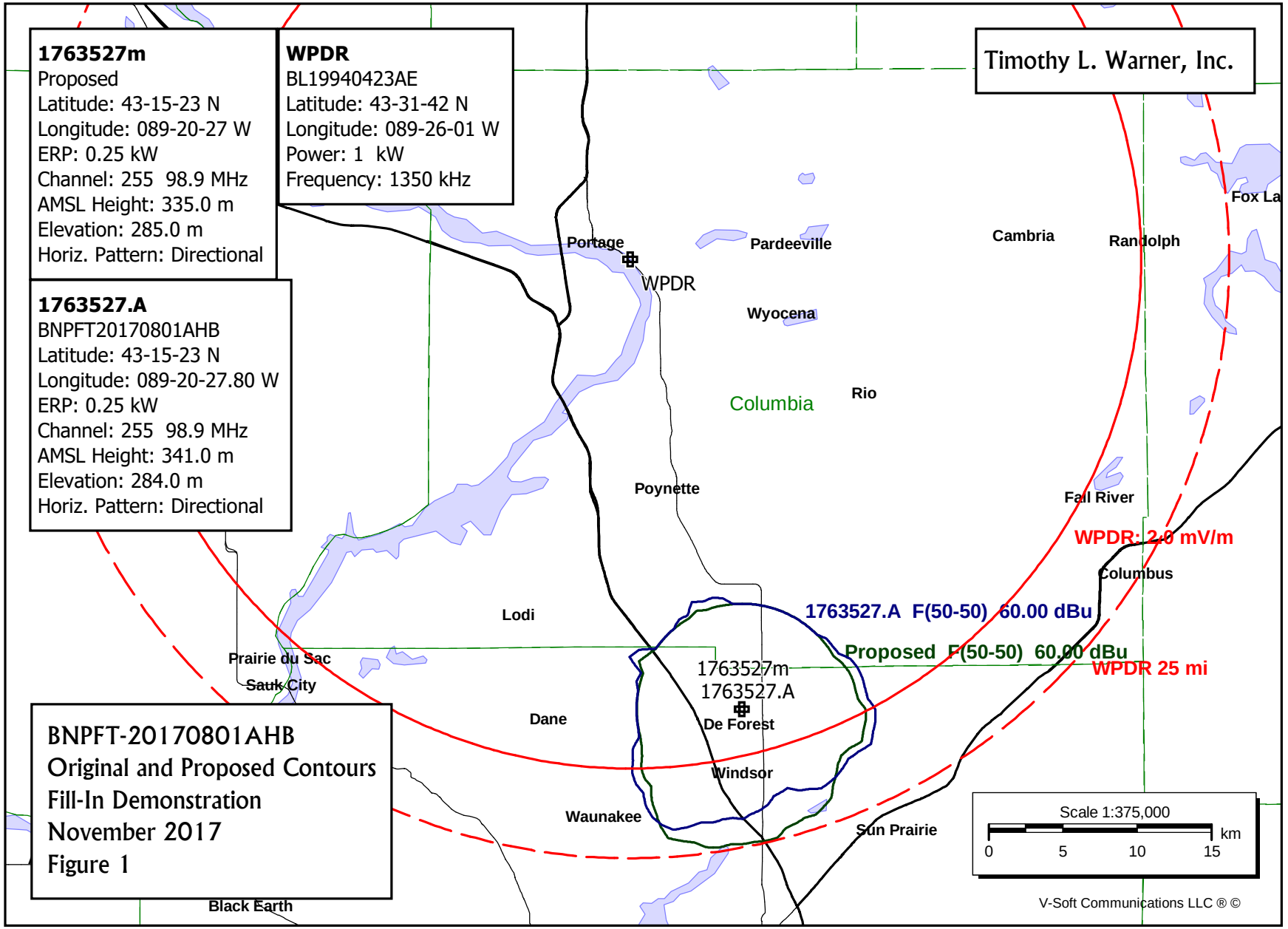
CH CALL / CITY	TYPE	ANT	STATE	AZI. <--	DIST / FILE #	LAT. / LNG.	Pwr(kW) / HAAT(M)	INT(km) / COR(M)	PRO(km) / LICENSEE	*IN* (Overlap in km)	*OUT*
255C0 WVCX	LIC	C		306.7	111.92	43 51 10.0	100.000	171.9	72.2	-67.5*	14.7
Tomah			WI	125.9	BMLED20020128ABE	90 27 36.0	300	645	Vcy America, Inc.		
255D 1763527	APP	DC		0.0	0.00	43 15 23.0	0.250	29.8	9.0	-36.9*	-32.7*
Deforest			WI	90.0	BNPFT20170801AHB	89 20 27.8		341	Magnum Communications, Inc		
Short form application for which this is the long form application.											
254L1 WVMO-LP	LIC			179.7	21.43	43 03 48.8	0.100			3.8	2.8
Monona			WI	359.7	BLL20150818ACM	89 20 22.2	19	295	City Of Monona		
256L1 WIDE-LP	LIC			205.9	24.72	43 03 22.3	0.100			3.8	3.3
Madison			WI	25.8	BLL20081106AAD	89 28 25.0	27	325	Health Writers, Inc.		
258D W258CM	CP	C		186.5	16.22	43 06 41.0	0.250	1.1	7.1	5.6	8.3
Madison			WI	6.4	BPFT20170614AAB	89 21 48.0		274	David R. Magnum		
258D W258CM	LIC	DC		186.5	16.22	43 06 41.0	0.120	0.8	5.7	6.0	9.5
Madison			WI	6.4	BLFT20161230AAN	89 21 48.0		274	David R. Magnum		
254A WMDC	LIC	ZCN		72.7	68.87	43 26 17.0	6.000	47.4	30.7	13.5	27.1
Mayville			WI	253.2	BLH19981026KF	88 31 35.0	100	393	Radio Plus, Inc.		
256B WMYX-FM	LIC	CN		108.0	109.50	42 56 44.0	50.000	70.5	57.8	30.6	34.7
Milwaukee			WI	288.8	BMLH19860225KC	88 03 39.0	137	377	Entercom License, Llc		
255D W255CZ	LIC	C		157.6	68.87	42 40 59.0	0.250	23.8	7.1	36.3	33.4
Janesville			WI	337.8	BLFT20170926ADQ	89 01 12.0		277	Big Radio		
258C2 WPKR	LIC	NC		40.2	83.59	43 49 44.0	25.000	4.6	43.3	71.9	39.2
Omro			WI	220.6	BLH20040123BEI	88 40 06.0	151	423	Cumulus Licensing Llc		
257A WDMP-FM	LIC	CN		240.1	74.57	42 55 10.0	1.550	2.1	23.8	63.9	48.8
Dodgeville			WI	59.6	BMLH19930609KA	90 08 06.0	140	479	Dodge Point Broadcasting C		
253B1 WXXQ	LIC	CN		179.7	108.55	42 16 48.0	11.000	3.9	44.8	95.4	62.3
Freeport			IL	359.7	BLH19990125KF	89 19 59.0	150	395	Townsquare Media Rockford		
255A WEMP	LIC	CX		56.9	150.42	43 59 03.0	6.000	77.9	21.6	65.1	103.7
Two Rivers			WI	238.0	BLH20131210BQU	87 45 55.0	89	310	Seehafer Broadcasting Corp		

Terrain database is GLOBE 30 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. Call signs with exclamation marks need not be protected.
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 restricted 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 evaluated using terrain extracted from the GLOBE 30 arcsecond terrain database, formatted by V-Soft Communications to work with its allocation and mapping programs.


1763527m
Proposed
Latitude: 43-15-23 N
Longitude: 089-20-27 W
ERP: 0.25 kW
Channel: 255 98.9 MHz
AMSL Height: 335.0 m
Elevation: 285.0 m
Horiz. Pattern: Directional
WPDR
BL19940423AE
Latitude: 43-31-42 N
Longitude: 089-26-01 W
Power: 1 kW
Frequency: 1350 kHz
1763527.A
BNPFT20170801AHB
Latitude: 43-15-23 N
Longitude: 089-20-27.80 W
ERP: 0.25 kW
Channel: 255 98.9 MHz
AMSL Height: 341.0 m
Elevation: 284.0 m
Horiz. Pattern: Directional
Timothy L. Warner, Inc.
BNPFT-20170801AHB
Original and Proposed Contours
Fill-In Demonstration
November 2017
Figure 1
Portage
Pardeeville
Cambria
Randolph
Fox La
WPDR
Wyocena
Columbia
Rio
Poynette
Fall River
WPDR: 2.0 mV/m
Columbus
Lodi
1763527.A F(50-50) 60.00 dBu
Proposed F(50-50) 60.00 dBu
WPDR 25 mi
Prairie du Sac
Sauk City
1763527m
1763527.A
Dane
De Forest
Windsor
Waunakee
Sun Prairie
Black Earth
Scale 1:375,000
km
0
5
10
15
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