

WURI
BMLED-20130426AAQ
Maneto, North Carolina
Application for Modified Construction Permit for Noncommercial FM Station
On Channel 215 Class A
by
Board of Trustees of the University of North Carolina at Chapel Hill

Exhibit 18
Allocations

January 2014

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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 18, Allocations, for Board of Trustees of the University of North Carolina at Chapel Hill, 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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Narrative

This Exhibit provides details of the allocations for the proposed modified facilities of WURI, at Maneto, North Carolina. The authorization file number is BMLED-20130426AAQ. This proposal complies fully with the requirements of 74 C.F.R. 73.509.

The changes are limited to increased effective radiated power.

The WURI antenna was replaced in 2013. This application proposes increasing the ERP to the level possible using the installed transmitter and antenna, observing all power handling limits of components in the line. An earlier construction permit, file number BPED-20101209AJE, is being surrendered. The changes proposed in this application will provide an immediate improvement to the population in the area at a modest expenditure of funds.

Allocations

This application proposes service to Maneto, North Carolina, on channel 215 as a Class A facility. The Allocations Table in this exhibit provides a list of the stations, construction permits, allocations, and applications studied. All are protected by this application.

An Allocations Study is included as Figure 1.

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. Terrain data is extracted from the V-Soft Communications copy of the FCC's NGDC 30 arcsecond terrain database for best agreement with Media Bureau programs.

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.

Area and Population

The area within the proposed 60 dBu F(50,50) service contour is calculated by a computer program which sums the areas within the contours based on 360 radials. The area of any significant water is then measured and subtracted. The resulting area is shown on a Figure at the end of this Exhibit. The population is calculated by the centroid method and is also listed on the Figure.

Table 1: Allocations

Allocation Study											
Board of Trustees University of NC At Chapel Hill											
REFERENCE			CH# 215A - 90.9 MHz, Pwr= 5.2 kW, HAAT= 57.0 M, COR= 57 M						DISPLAY DATES		
35 54 28.0 N.			Average Protected F(50-50)= 21.2 km						DATA 12-31-13		
75 40 26.0 W.			Omni-directional						SEARCH 01-02-14		
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*
215C2 Manteo	WURI	CP	CX NC	0.0 0.0	0.00 BPED20101209AJE	35 54 28.0 75 40 26.0	50.000 57	122.3 57	35.7 Board of Trustees University	-143.5*	-111.3*
CP being superseded by this application.											
215A Manteo	WURI	LIC	CX NC	0.0 0.0	0.00 BMLED20130426AAQ	35 54 28.0 75 40 26.0	3.900 57	70.7 57	19.8 Board of Trustees University	-91.8*	-95.4*
Licensed facilities being modified by this application.											
216C2 Aurora	WZGO	LIC	CX NC	230.4 49.9	105.13 BLED20060727AAI	35 18 09.0 76 34 00.0	40.000 107	68.0 108	44.1 Pathway Christian Academy,	15.9	29.6
214D Elizabeth City	W214BU	LIC	C NC	310.4 130.1	66.70 BLFT20070727ADZ	36 17 42.0 76 14 26.0	0.045 20	6.5 20	4.6 Grace Christian School	39.2	31.1
216D Buxton	W216BE	LIC	C NC	170.6 350.7	72.07 BLFT20121113AKD	35 16 01.0 75 32 37.0	0.050 10	6.7 10	4.7 Board of Trustees Universi	44.2	36.0
213C2 Buxton	WBUX	CP	CX NC	170.0 350.1	72.17 BPED20101209AIW	35 16 02.0 75 32 07.0	30.000 49	3.0 49	29.4 Board of Trustees Universi	48.0	40.6
216B1 Norfolk	WNSB	LIC	CN VA	326.7 146.3	115.60 BLED19980603KA	36 46 32.0 76 23 11.0	8.100 132	52.3 133	34.5 Norfolk State University B	42.2	50.0
217A Hertford	WHGO	LIC	DCX NC	286.7 106.3	75.32 BLED20130812AAE	36 05 59.0 76 28 31.0	3.100 106	2.3 109	25.0 Pathway Christian Academy,	51.8	47.9
213A Buxton	WBUX	LIC	C NC	170.6 350.7	72.06 BLED20000203ABD	35 16 01.0 75 32 38.0	5.900 47	2.0 47	19.8 Board of Trustees Universi	48.9	50.1
214B Cape Charles	WZLV	LIC	DCX VA	349.7 169.6	143.68 BLED20120203ABZ	37 10 53.0 75 57 47.0	47.000 156	72.4 157	47.8 Educational Media Foundati	50.7	62.1
214D Edenton	W214CB	LIC	C NC	281.1 100.5	87.97 BLFT20100122AAC	36 03 21.0 76 37 56.0	0.045 18	6.5 20	4.6 Grace Christian School	60.2	52.0
215C2 Rocky Mount	WRQM	LIC	CX NC	267.3 86.1	187.15 BLED20060406ACR	35 48 40.0 77 44 33.0	7.500 191	104.3 220	40.7 The Board of Trustees Of T	61.6	70.7
268A Buxton	WHDZ«	LIC	CX NC	169.2 349.3	72.94 BLH20080331ACY	35 15 43.0 75 31 23.0	0.110 20	33.7 20	105.0 Radio Hatteras, Inc.	9.5R	63.4M
212B Norfolk	WHRO-FM	LIC	CX VA	323.7 143.2	124.65 BLED20111102AIC	36 48 31.0 76 30 13.0	8.800 350	5.0 353	52.0 Hampton Roads Educational	98.6	70.4

Terrain database is FCC NGDC 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= - Zone 2, Co to 3rd adjacent.

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.

Figure 1: Allocation Study
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FMCommander Full Allocation Study - FCC NGDC 30 Sec

01-02-2014

WURI CH 215 A

Lat= 35 54 28.0, Lng= 75 40 26.0

5.2 kW 57 M HAAT, 57 M COR



