

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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2 January 2014

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												
CH# 215A - 90.9 MHz, Pwr= 5.2 kW, HAAT= 57.0 M, COR= 57 M												
Average Protected F(50-50)= 21.2 km												
Omni-directional												
DISPLAY DATES												
DATA 12-31-13												
SEARCH 01-02-14												
REFERENCE	CH	CALL	TYPE	ANT	AZI.	DIST	LAT.	Pwr(kw)	INT(km)	PRO(km)	*IN*	*OUT*
35 54 28.0 N.	CITY		STATE		<--	FILE #	LNG.	HAAT(M)	COR(M)	LICENSEE	(Overlap	in km)
75 40 26.0 W.												
215C2	WURI		CP	CX	0.0	0.00	35 54 28.0	50.000	122.3	35.7	-143.5*	-111.3*
	Manteo			NC	0.0	BPED20101209AJE	75 40 26.0	57	57	Board of Trustees University		
CP being superseded by this application.												
215A	WURI		LIC	CX	0.0	0.00	35 54 28.0	3.900	70.7	19.8	-91.8*	-95.4*
	Manteo			NC	0.0	BMLD20130426AAQ	75 40 26.0	57	57	Board of Trustees University		
Licensed facilities being modified by this application.												
216C2	WZGO		LIC	CX	230.4	105.13	35 18 09.0	40.000	68.0	44.1	15.9	29.6
	Aurora			NC	49.9	BLED20060727AAI	76 34 00.0	107	108	Pathway Christian Academy,		
214D	W214BU		LIC	C	310.4	66.70	36 17 42.0	0.045	6.5	4.6	39.2	31.1
	Elizabeth City			NC	130.1	BLFT20070727ADZ	76 14 26.0	20	20	Grace Christian School		
216D	W216BE		LIC	C	170.6	72.07	35 16 01.0	0.050	6.7	4.7	44.2	36.0
	Buxton			NC	350.7	BLFT20121113AKD	75 32 37.0	10	10	Board of Trustees University		
213C2	WBUX		CP	CX	170.0	72.17	35 16 02.0	30.000	3.0	29.4	48.0	40.6
	Buxton			NC	350.1	BPED20101209AIW	75 32 07.0	49	49	Board of Trustees University		
216B1	WNSB		LIC	CN	326.7	115.60	36 46 32.0	8.100	52.3	34.5	42.2	50.0
	Norfolk			VA	146.3	BLED19980603KA	76 23 11.0	132	133	Norfolk State University B		
217A	WHGO		LIC	DCX	286.7	75.32	36 05 59.0	3.100	2.3	25.0	51.8	47.9
	Hertford			NC	106.3	BLED20130812AAE	76 28 31.0	106	109	Pathway Christian Academy,		
213A	WBUX		LIC	C	170.6	72.06	35 16 01.0	5.900	2.0	19.8	48.9	50.1
	Buxton			NC	350.7	BLED20000203ABD	75 32 38.0	47	47	Board of Trustees University		
214B	WZLV		LIC	DCX	349.7	143.68	37 10 53.0	47.000	72.4	47.8	50.7	62.1
	Cape Charles			VA	169.6	BLED20120203ABZ	75 57 47.0	156	157	Educational Media Foundati		
214D	W214CB		LIC	C	281.1	87.97	36 03 21.0	0.045	6.5	4.6	60.2	52.0
	Edenton			NC	100.5	BLFT20100122AAC	76 37 56.0	18	20	Grace Christian School		
215C2	WRQM		LIC	CX	267.3	187.15	35 48 40.0	7.500	104.3	40.7	61.6	70.7
	Rocky Mount			NC	86.1	BLED20060406ACR	77 44 33.0	191	220	The Board of Trustees Of T		
268A	WHDZ<<		LIC	CX	169.2	72.94	35 15 43.0	0.110	33.7	105.0	9.5R	63.4M
	Buxton			NC	349.3	BLH20080331ACY	75 31 23.0	20	20	Radio Hatteras, Inc.		
212B	WHRO-FM		LIC	CX	323.7	124.65	36 48 31.0	8.800	5.0	52.0	98.6	70.4
	Norfolk			VA	143.2	BLED20111102AIC	76 30 13.0	350	353	Hampton Roads Educational		

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
Board Of Trustees University Of NC At Chapel Hill

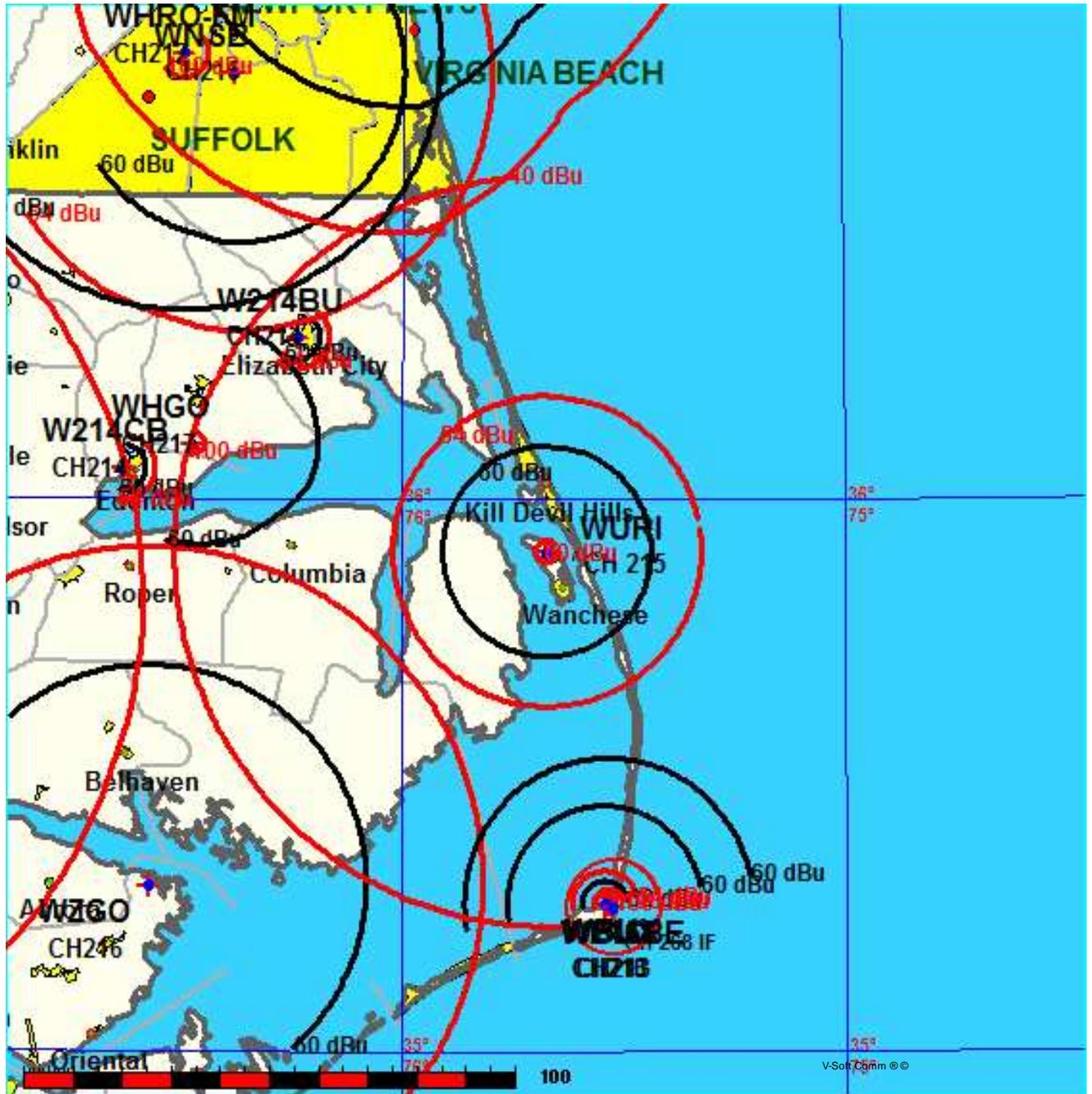
FMCommander Full Allocation Study - FCC NGDC 30 Sec

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



WURImod

Proposed
Latitude: 35-54-28 N
Longitude: 075-40-26 W
ERP: 5.20 kW
Channel: 215 90.9 MHz
AMSL Height: 57.0 m
Elevation: 2.0 m
Horiz. Pattern: Omni

WURI

BMLED20130426AAQ
Latitude: 35-54-28 N
Longitude: 075-40-26 W
ERP: 3.90 kW
Channel: 215 90.9 MHz
AMSL Height: 57.0 m
Elevation: 2.0 m
Horiz. Pattern: Omni

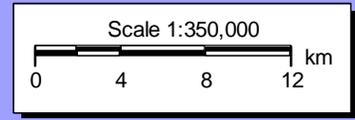
WURI

Manteo, North Carolina
Area and Population
January 2014
Figure 2

Population: 25,415 (Census 2010)
Net land area: 467.46 sq. km.

Timothy L. Warner, Inc.

Proposed F(50-50) 60.00 dBu
Licensed F(50-50) 60.00 dBu



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