

ENGINEERING EXHIBIT

Special Temporary Authority for Digital Television Translator Station

prepared for

University of North Carolina

W46AX-D Bryson City NC

Facility ID 69123

Ch. 27 (digital) 0.93 kW

University of North Carolina (“UNC”) is the licensee of digital television translator station W46AX-D, Channel 46, Bryson City NC, Facility ID 69123. W46AX-D has received a 120 day notice from a 600 MHz licensee that the wireless licensee intends to commence operations and W46AX-D is predicted to cause interference to the wireless operations. The 120 day notice, attached separately, states that wireless operations will commence on December 1, 2018.

By way of background, W46AX-D is a translator facility associated with primary station WUNF-TV (Fac ID 69300, Asheville NC). WUNF-TV is one of 12 full-power television stations licensed to *UNC*, all of which carry identical programming known as UNC-TV. W46AX-D’s 51 dBμ service contour is partially encompassed by the WUNF-TV noise limited service contour (“NLSC”). The NLSC of another *UNC* station, WUNW (Fac ID 83822, Canton NC) also partially encompasses the W46AX-D 51 dBμ contour.

Owing to the eventual displacement of W46AX-D and numerous others of *UNC*’s translators, an application for Construction Permit is pending (file# 0000036076) to convert WUNW to a Distributed Transmission System (“DTS”) by adding seven transmitter sites to its current site. These seven sites correspond to existing television translator locations (one of which is W46AX-D) utilized by *UNC* that are displaced as a result of the Incentive Auction proceeding, and buildout would eventually replace the existing, displaced translator facilities with operation as DTS on WUNW’s Channel 27 (WUNW was not reassigned to another channel).

Now, considering the 120 day notice from the wireless licensee, W46AX-D must cease operation on its licensed Channel 46 by December 1, 2018. Since the Channel 27 WUNW DTS facility will eventually provide replacement service for W46AX-D, *UNC* did not file for a displacement channel for W46AX-D during the Special Displacement Window. Thus, the procedures described in DA 17-584¹ cannot precisely be followed. As discussed informally with FCC staff, *UNC* herein requests Special Temporary Authority (“STA”) to operate W46AX-D on Channel 27, with proposed parameters that nearly replicate those on file for “Site 6” in the WUNW DTS application. This procedure, which does not involve a displacement application, is identical to that underlying the STA in LMS file# 0000049026 for UNC translator W47DM-D (Fac ID 69388, Cullowhee NC), granted on April 20, 2018.

As proposed herein, W46AX-D will operate at its existing antenna location on Channel 27 in lieu of the licensed Channel 46. The existing antenna supporting structure is not registered as the overall structure height is less than 61 meters above ground and passes the FCC’s TOWAIR program for the tower location. The proposed W46AX-D STA facility will employ a replacement antenna system and no change to the overall structure height is proposed.²

The existing W46AX-D facility is licensed to operate at 0.5 kW effective radiated power (“ERP”) with a nondirectional antenna. As proposed herein, the Channel 27 W46AX-D STA facility will operate at 0.93 kW ERP nondirectional, with circular polarization. Figure 1 depicts the 51 dBμ coverage contour of the licensed and proposed facilities.

Interference study per OET Bulletin 69³ shows that the proposal complies with the FCC’s interference protection requirements toward all digital television, television translator, LPTV,

¹“*Incentive Auction Task Force and Media Bureau Set Forth Tools Available to LPTV/Translator Stations Displaced Prior to the Special Displacement Window*,” Public Notice, DA 17-584, released June 13, 2017.

²The Channel 27 facility for “Site 6” in the WUNW DTS application will utilize a different tower structure located immediately adjacent to the licensed W46AX-D site.

³FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 (“OET-69”). This analysis employed the FCC’s current “TVStudy” software with the default application processing template settings, 1 km cell size, and 0.1 km terrain increment. Comparisons of various results of this computer program (run on a Mac processor) to the FCC’s implementation of TVStudy show excellent correlation.

and Class A stations (existing and post-auction). FCC processing of this proposal is requested using a 1 km cell size and **0.1 km terrain profile increment**. The results, summarized in Table 1, show that any new interference does not exceed the FCC's interference limits (0.5 percent to full power and Class A stations, and 2.0 percent to secondary stations) to any facility except with respect to WUNW which does not present a conflict for the proposal.

The WUNW DTS application facility (file# 0000036076) would receive 0.79 percent new interference, which exceeds the 0.5 percent limit towards full power stations. Interference to the DTS facility is theoretical, as the proposed STA operation on Channel 27 will be replaced by the WUNW Channel 27 DTS facility site number 6. As stated, *UNC* is also the licensee of WUNW, which is programmed identical to W46AX-D, and consents to the proposed 0.79 percent interference that would be caused to the WUNW DTS application facility.

Human Exposure to Radiofrequency Electromagnetic Field

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the FCC's OET Bulletin Number 65. Based on OET-65 equation (10), and considering 12 percent antenna relative field in downward elevations (pattern data shows less than 12 percent relative field at angles 25 to 90 degrees below the antenna), the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is $0.9 \mu\text{W}/\text{cm}^2$, which is 0.3 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent.

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower, or antenna from RF electromagnetic field exposure in excess of FCC guidelines. This exhibit is limited to the evaluation of exposure to RF electromagnetic field.

List of Attachments

Figure 1 Coverage Contour Comparison
Table 1 OET Bulletin 69 Interference Study

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E. August 21, 2018
207 Old Dominion Road Yorktown, VA 23692 703-650-9600



prepared for
University of North Carolina
August, 2018

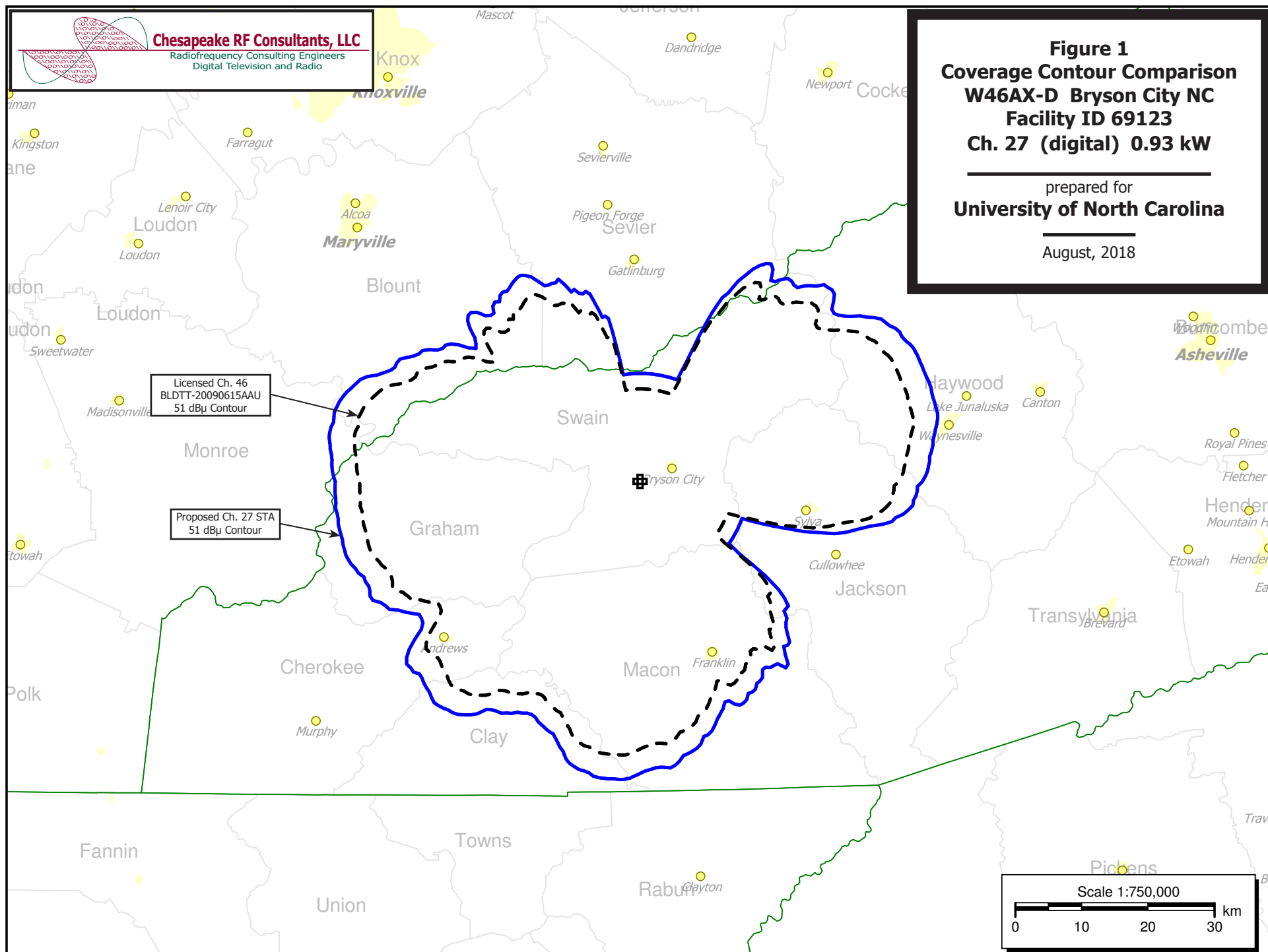
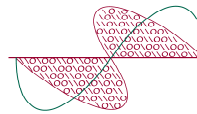


Table 1 W46AX-D OET Bulletin 69 Interference Study
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Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

tvstudy v2.2.5 (4uoc83)

Database: localhost, Study: W46AX-D Ch-27 0.93kW 1.0-0.1, Model: Longley-Rice
Start: 2018.08.21 12:11:34

Study created: 2018.08.21 12:11:34

Study build station data: LMS TV 2018-08-20

Proposal: W46AX-D D27 LD APP BRYSON CITY, NC
File number: W46AX-D Ch-27 0.93kW
Facility ID: 69123
Station data: User record
Record ID: 2268
Country: U.S.

Build options:
Protect pre-transition records not on baseline channel

Search options:
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	W26EM-D	D26	LD	CP	ATHENS, GA	BPDTL20141216ABG	135.0 km
No	W26EM-D	D26	LD	LIC	ATHENS, GA	BLDTL20140919ACX	162.5
No	WLVO-LD	D26	LD	LIC	Atlanta, GA	BLANK0000008263	194.3
No	WVVK-LP	D26-	LD	APP	MARTIN, KY	BLANK00000054354	225.6
No	W47DY-D	D26	LD	APP	CANTON/WAYNESVILLE, NC	BLANK00000054211	56.4
No	W42DR-D	D26	LD	APP	MARION, NC	BLANK00000054245	181.6
No	WNEH	D26	DT	CP	GREENWOOD, SC	BLANK00000025027	167.8
No	W18DS-D	D26	LD	CP	CHATTANOOGA, TN	BLANK00000051827	163.1
Yes	WATE-TV	D26	DT	LIC	KNOXVILLE, TN	BMLCDT20041203AEG	76.8
No	WBUN-LD	D27	LD	LIC	BIRMINGHAM, AL	BLDTL20130909ACA	371.2
No	WAIQ	D27	DT	LIC	MONTGOMERY, AL	BLEDT20060706ACK	424.1
No	WNAL-LD	D27-	LD	LIC	SCOTTSBORO, AL	BLANK00000044789	282.7
No	WNAL-LD	N27-	TX	LIC	SCOTTSBORO, AL	BLTT20060126AEL	244.6
No	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	195.1
No	W27DT-D	D27	LD	CP	BYROMVILLE, GA	BNPDTL20100510AFT	353.6
No	W27DK-D	D27	LD	CP	COLUMBUS, GA	BNPDTL20090825BYF	363.7
No	W27DV-D	D27	LD	CP	DUBLIN, GA	BNPDTL20100510AHA	330.3
No	WTVQ-DT	D27	DT	CP	LEXINGTON, KY	BLANK00000026675	302.0
No	W41DL-D	D27	LD	APP	BOONE, NC	BLANK00000053444	185.8
Yes	WUNW	D27	DD	APP	CANTON, NC	BLANK00000036076	56.4
Yes	WUNW	D27	DT	CP	CANTON, NC	BLANK00000035959	56.4
Yes	WUNW	D27	DT	LIC	CANTON, NC	BLEDT20110921AAA	56.4
No	WGTB-CD	D27	DC	CP	CHARLOTTE, NC	BLANK00000028505	212.6
No	WCCB	D27	DT	LIC	CHARLOTTE, NC	BLCDT20020227AAZ	251.3
No	WLFL	D27	DT	LIC	RALIGH, NC	BLCDT20090612AIF	450.6
No	WOUB-TV	D27	DT	LIC	ATHENS, OH	BLEDT20030411ABC	449.7
No	WUDI-LD	D27	LD	CP	Charleston, SC	BLANK00000004335	383.7
No	WDYH-LD	D27	LD	LIC	Columbia, SC	BLANK00000004617	252.1
No	WDYH-LD	D27	LD	CP	Columbia, SC	BLANK00000036473	268.8
No	WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK00000034379	397.5
No	WYHB-LP	D27z	LD	APP	CHATTANOOGA, TN	BLANK00000054521	168.3
No	WTNB-CD	D27	DC	LIC	CLEVELAND, TN	BLANK00000001208	127.6
No	WKPT-TV	D27	DT	LIC	KINGSPORT, TN	BLANK00000003746	166.9
No	WLJT-DT	D27	DT	LIC	LEXINGTON, TN	BLANK00000058637	462.4
No	WKRN-TV	D27	DT	LIC	NASHVILLE, TN	BLCDT20090624ABO	308.6
No	WPXR-TV	D27	DT	CP	ROANOKE, VA	BLANK00000034915	359.0
No	W16CE	D27-	LD	CP	CHARLESTON, WV	BLANK00000054050	367.8
No	WHJC-LP	D27	LD	LIC	WILLIAMSON, WV	BLDTL20100910AAH	279.4
No	WTHC-LD	D28	LD	CP	ATLANTA, GA	BLANK00000054847	223.9
No	WJBF	D28	DT	CP	AUGUSTA, GA	BLANK00000028403	270.4
No	WDWW-LD	D28	LD	LIC	CLEVELAND, GA	BLANK00000013970	194.3
No	WELF-TV	D28	DT	CP	DALTON, GA	BLANK00000026361	186.3
No	W28EP-D	D28	LD	CP	BAT CAVE, ETC, NC	BDCDDTT20140611AAF	113.3
No	W28EE-D	D28	LD	LIC	CANTON, ETC., NC	BLDTT20110922AAG	94.0
No	W28DB-D	D28	LD	LIC	HONEA PATH, SC	BLDTT20100825AAD	112.0
No	WEMT	D28	DT	CP	GREENEVILLE, TN	BLANK00000034887	170.2
No	WEZK-LP	N28z	TX	LIC	KNOXVILLE, TN	BLTTL20001011ACO	77.0
No	WEZK-LP	D28	LD	CP	KNOXVILLE, TN	BDFCDTL20130918AHU	77.0
No	W31AZ-D	N31-	TX	LIC	HENDERSONVILLE, NC	BLTTL19940525JJJ	98.4

Table 1 W46AX-D OET Bulletin 69 Interference Study
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No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D27
Mask: Full Service
Latitude: 35 24 47.30 N (NAD83)
Longitude: 83 30 1.50 W
Height AMSL: 1040.0 m
HAAT: 0.0 m
Peak ERP: 0.930 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 1.75

50.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.930 kW	10.4 m	17.5 km
45.0	0.930	307.2	41.9
90.0	0.930	342.3	43.5
135.0	0.930	128.2	32.2
180.0	0.930	377.1	45.1
225.0	0.930	409.7	46.1
270.0	0.930	451.8	47.2
315.0	0.930	208.2	37.0

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 279 m

Distance to Canadian border: 699.8 km

Distance to Mexican border: 1654.4 km

Conditions at FCC monitoring station: Powder Springs GA

Bearing: 213.3 degrees Distance: 205.5 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 291.8 degrees Distance: 1973.6 km

Study cell size: 1.00 km

Profile point spacing: 0.10 km

Maximum new IX to full-service and Class A: 0.50%

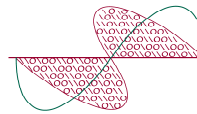
Maximum new IX to LPTV: 2.00%

Interference to BMLCDT20041203AEG LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WATE-TV	D26	DT	LIC	KNOXVILLE, TN	BMLCDT20041203AEG	
Undesireds:	W46AX-D	D27	LD	APP	BRYSON CITY, NC	W46AX-D Ch-27 0.93kW	76.8 km
	WYHB-CD	D25	DC	CP	CHATTANOOGA, TN	BLANK0000024558	149.9
	WTJP-TV	D26	DT	LIC	GADSDEN, AL	BLCDT20110304ACB	333.7
	WGXA	D26	DT	CP	MACON, GA	BLANK0000034372	363.4
	WFIE	D26	DT	CP	EVANSVILLE, IN	BLANK0000034157	380.4
	WCPO-TV	D26	DT	CP	CINCINNATI, OH	BLANK0000034668	350.4
	WNEH	D26	DT	CP	GREENWOOD, SC	BLANK0000025027	242.6
	WUNW	D27	DD	APP	CANTON, NC	BLANK0000036076	105.1

	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	43812.0	1,874,498	38389.7	1,687,789	37920.0	1,672,537	0.00 0.00
Undesired				Total IX	Unique IX, before	Unique IX, after	
W46AX-D D27 LD APP		9.0		0		1.0	0
WYHB-CD D25 DC CP		75.7		2,223	50.8	1,623	50.8 1,623

Table 1 W46AX-D OET Bulletin 69 Interference Study
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WTJP-TV D26 DT LIC	192.5	8,928	158.6	8,121	158.6	8,121
WGXA D26 DT CP	4.0	0	0.0	0	0.0	0
WFIE D26 DT CP	37.2	739	18.1	520	18.1	520
WCPO-TV D26 DT CP	182.5	4,155	170.4	4,143	170.4	4,143
WNEH D26 DT CP	5.0	4	3.0	4	3.0	4
WUNW D27 DD APP	22.9	22	19.9	22	13.9	22

Interference to BMLCDT20041203AEG LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WATE-TV	D26	DT	LIC	KNOXVILLE, TN	BMLCDT20041203AEG	
Undesireds:	W46AX-D	D27	LD	APP	BRYSON CITY, NC	W46AX-D Ch-27 0.93kW	76.8 km
	WYHB-CD	D25	DC	CP	CHATTANOOGA, TN	BLANK0000024558	149.9
	WTJP-TV	D26	DT	LIC	GADSDEN, AL	BLCDT20110304ACB	333.7
	WGXA	D26	DT	CP	MACON, GA	BLANK0000034372	363.4
	WFIE	D26	DT	CP	EVANSVILLE, IN	BLANK0000034157	380.4
	WCPO-TV	D26	DT	CP	CINCINNATI, OH	BLANK0000034668	350.4
	WNEH	D26	DT	CP	GREENWOOD, SC	BLANK0000025027	242.6
	WUNW	D27	DT	CP	CANTON, NC	BLANK0000035959	105.1

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
43812.0 1,874,498	38389.7 1,687,789	37928.0 1,672,537	37921.0 1,672,537	0.02 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
W46AX-D D27 LD APP 9.0	0	7.0	0
WYHB-CD D25 DC CP 75.7	2,223	1,623	1,623
WTJP-TV D26 DT LIC 192.5	8,928	158.6 8,121	158.6 8,121
WGXA D26 DT CP 4.0	0	1.0 0	0.0 0
WFIE D26 DT CP 37.2	739	18.1 520	18.1 520
WCPO-TV D26 DT CP 182.5	4,155	170.4 4,143	170.4 4,143
WNEH D26 DT CP 5.0	4	3.0 4	3.0 4
WUNW D27 DT CP 12.9	22	11.9 22	11.9 22

Interference to BMLCDT20041203AEG LIC scenario 3

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WATE-TV	D26	DT	LIC	KNOXVILLE, TN	BMLCDT20041203AEG	
Undesireds:	W46AX-D	D27	LD	APP	BRYSON CITY, NC	W46AX-D Ch-27 0.93kW	76.8 km
	WYHB-CD	D25	DC	CP	CHATTANOOGA, TN	BLANK0000024558	149.9
	WTJP-TV	D26	DT	LIC	GADSDEN, AL	BLCDT20110304ACB	333.7
	WGXA	D26	DT	CP	MACON, GA	BLANK0000034372	363.4
	WFIE	D26	DT	CP	EVANSVILLE, IN	BLANK0000034157	380.4
	WCPO-TV	D26	DT	CP	CINCINNATI, OH	BLANK0000034668	350.4
	WNEH	D26	DT	CP	GREENWOOD, SC	BLANK0000025027	242.6
	WUNW	D27	DT	LIC	CANTON, NC	BLCDT20110921AAA	105.1

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
43812.0 1,874,498	38389.7 1,687,789	37928.0 1,672,537	37921.0 1,672,537	0.02 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
W46AX-D D27 LD APP 9.0	0	7.0	0
WYHB-CD D25 DC CP 75.7	2,223	50.8 1,623	50.8 1,623
WTJP-TV D26 DT LIC 192.5	8,928	158.6 8,121	158.6 8,121
WGXA D26 DT CP 4.0	0	1.0 0	0.0 0
WFIE D26 DT CP 37.2	739	18.1 520	18.1 520
WCPO-TV D26 DT CP 182.5	4,155	170.4 4,143	170.4 4,143
WNEH D26 DT CP 5.0	4	3.0 4	3.0 4
WUNW D27 DT LIC 12.9	22	11.9 22	11.9 22

Interference to BLANK0000036076 APP scenario 1

**MX: 0.79% interference caused

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WUNW	D27	DD	APP	CANTON, NC	BLANK0000036076	
Undesireds:	W46AX-D	D27	LD	APP	BRYSON CITY, NC	W46AX-D Ch-27 0.93kW	56.4 km
	WNEH	D26	DT	CP	GREENWOOD, SC	BLANK0000025027	149.1
	WATE-TV	D26	DT	LIC	KNOXVILLE, TN	BMLCDT20041203AEG	105.1

Table 1 W46AX-D OET Bulletin 69 Interference Study
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WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	236.1
WTVQ-DT	D27	DT	CP	LEXINGTON, KY	BLANK0000026675	304.3
WGTB-CD	D27	DC	CP	CHARLOTTE, NC	BLANK0000028505	160.3
WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK0000034379	352.1
WPXR-TV	D27	DT	CP	ROANOKE, VA	BLANK0000034915	305.3
WEMT	D28	DT	CP	GREENEVILLE, TN	BLANK0000034887	121.5

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
30340.4 1,869,244	24159.5 1,460,747	23694.6 1,427,326	23145.6 1,416,111	2.32 0.79

Undesired	Total IX	Unique IX, before	Unique IX, after
W46AX-D D27 LD APP	572.9 11,721	549.0 11,215	
WNEH D26 DT CP	8.0 445	2.0 0	
WATE-TV D26 DT LIC	52.5 9,904	48.5 9,904	
WAGA-TV D27 DT LIC	209.8 14,109	157.9 12,361	
WTVQ-DT D27 DT CP	14.1 853	7.1 772	
WGTB-CD D27 DC CP	147.6 5,796	111.7 3,584	
WPDE-TV D27 DT CP	21.0 1,600	6.0 260	
WPXR-TV D27 DT CP	64.8 3,726	45.8 3,024	
WEMT D28 DT CP	16.2 689	8.1 482	

Interference to BLANK0000035959 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WUNW	D27	DT	CP	CANTON, NC	BLANK0000035959	
Undesireds:	W46AX-D	D27	LD	APP	BRYSON CITY, NC	W46AX-D Ch-27 0.93kW	56.4 km
	WNEH	D26	DT	CP	GREENWOOD, SC	BLANK0000025027	149.1
	WATE-TV	D26	DT	LIC	KNOXVILLE, TN	BMLCDT20041203AEG	105.1
	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	236.1
	WTVQ-DT	D27	DT	CP	LEXINGTON, KY	BLANK0000026675	304.3
	WGTB-CD	D27	DC	CP	CHARLOTTE, NC	BLANK0000028505	160.3
	WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK0000034379	352.1
	WKRN-TV	D27	DT	LIC	NASHVILLE, TN	BLCDT20090624ABO	357.6
	WPXR-TV	D27	DT	CP	ROANOKE, VA	BLANK0000034915	305.3
	WEMT	D28	DT	CP	GREENEVILLE, TN	BLANK0000034887	121.5

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
23306.2 1,111,354	16244.7 691,916	16114.4 680,049	16084.6 679,588	0.19 0.07

Undesired	Total IX	Unique IX, before	Unique IX, after
W46AX-D D27 LD APP	40.8 461	29.9 461	
WNEH D26 DT CP	5.0 93	2.0 93	
WATE-TV D26 DT LIC	48.4 9,631	43.4 9,353	
WAGA-TV D27 DT LIC	56.9 1,434	41.9 1,432	
WTVQ-DT D27 DT CP	8.1 385	4.0 346	
WGTB-CD D27 DC CP	19.9 216	13.9 75	
WPDE-TV D27 DT CP	1.0 139	0.0 0	
WKRN-TV D27 DT LIC	1.0 0	0.0 0	
WPXR-TV D27 DT CP	4.0 317	2.0 0	
WEMT D28 DT CP	1.0 110	1.0 110	

Interference to BLEDT20110921AAA LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WUNW	D27	DT	LIC	CANTON, NC	BLEDT20110921AAA	
Undesireds:	W46AX-D	D27	LD	APP	BRYSON CITY, NC	W46AX-D Ch-27 0.93kW	56.4 km
	WNEH	D26	DT	CP	GREENWOOD, SC	BLANK0000025027	149.1
	WATE-TV	D26	DT	LIC	KNOXVILLE, TN	BMLCDT20041203AEG	105.1
	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	236.1
	WTVQ-DT	D27	DT	CP	LEXINGTON, KY	BLANK0000026675	304.3
	WGTB-CD	D27	DC	CP	CHARLOTTE, NC	BLANK0000028505	160.3
	WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK0000034379	352.1
	WKRN-TV	D27	DT	LIC	NASHVILLE, TN	BLCDT20090624ABO	357.6
	WPXR-TV	D27	DT	CP	ROANOKE, VA	BLANK0000034915	305.3
	WEMT	D28	DT	CP	GREENEVILLE, TN	BLANK0000034887	121.5

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
23306.2 1,111,354	16244.7 691,916	16114.4 680,049	16084.6 679,588	0.19 0.07

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Undesired		Total IX	Unique IX, before	Unique IX, after
W46AX-D D27 LD APP	40.8	461		29.9 461
WNEH D26 DT CP	5.0	93	2.0 93	2.0 93
WATE-TV D26 DT LIC	48.4	9,631	43.4 9,353	43.4 9,353
WAGA-TV D27 DT LIC	56.9	1,434	49.9 1,432	41.9 1,432
WTVQ-DT D27 DT CP	8.1	385	4.0 346	4.0 346
WGTB-CD D27 DC CP	19.9	216	13.9 75	13.9 75
WPDE-TV D27 DT CP	1.0	139	0.0 0	0.0 0
WKRN-TV D27 DT LIC	1.0	0	1.0 0	0.0 0
WPXR-TV D27 DT CP	4.0	317	2.0 0	2.0 0
WEMT D28 DT CP	1.0	110	1.0 110	1.0 110

Interference to proposal scenario 1
**MX: 15.50% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W46AX-D	D27	LD	APP	BRYSON CITY, NC	W46AX-D Ch-27 0.93kW	
Undesireds:	W26EM-D	D26	LD	CP	ATHENS, GA	BPDTL20141216ABG	135.0 km
	WATE-TV	D26	DT	LIC	KNOXVILLE, TN	BMLCDT20041203AEG	76.8
	WNAL-LD	D27-	LD	LIC	SCOTTSBORO, AL	BLANK0000044789	282.7
	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	195.1
	WUNW	D27	DD	APP	CANTON, NC	BLANK0000036076	56.4
	WDYH-LD	D27	LD	LIC	Columbia, SC	BLANK0000004617	252.1
	WKRN-TV	D27	DT	LIC	NASHVILLE, TN	BLCDT20090624ABO	308.6
	WEZK-LP	N28z	TX	LIC	KNOXVILLE, TN	BLTTL20001011ACO	77.0

	Service area	Terrain-limited		IX-free	Percent IX		
	4743.5 92,175	3986.1	66,587	3492.9	56,264	12.37	15.50

Undesired		Total IX	Unique IX	Prcnt Unique IX
WATE-TV D26 DT LIC	1.0	0	0.0	0.00 0.00
WAGA-TV D27 DT LIC	2.0	0	0.0	0.00 0.00
WUNW D27 DD APP	493.3	10,323	490.3 10,323	12.30 15.50
WKRN-TV D27 DT LIC	1.0	0	0.0	0.00 0.00

Interference to proposal scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W46AX-D	D27	LD	APP	BRYSON CITY, NC	W46AX-D Ch-27 0.93kW	
Undesireds:	W26EM-D	D26	LD	CP	ATHENS, GA	BPDTL20141216ABG	135.0 km
	WATE-TV	D26	DT	LIC	KNOXVILLE, TN	BMLCDT20041203AEG	76.8
	WNAL-LD	D27-	LD	LIC	SCOTTSBORO, AL	BLANK0000044789	282.7
	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	195.1
	WUNW	D27	DT	CP	CANTON, NC	BLANK0000035959	56.4
	WDYH-LD	D27	LD	LIC	Columbia, SC	BLANK0000004617	252.1
	WKRN-TV	D27	DT	LIC	NASHVILLE, TN	BLCDT20090624ABO	308.6
	WEZK-LP	N28z	TX	LIC	KNOXVILLE, TN	BLTTL20001011ACO	77.0

	Service area	Terrain-limited		IX-free	Percent IX		
	4743.5 92,175	3986.1	66,587	3970.2	66,577	0.40	0.02

Undesired		Total IX	Unique IX	Prcnt Unique IX
WATE-TV D26 DT LIC	1.0	0	0.0	0.00 0.00
WAGA-TV D27 DT LIC	2.0	0	1.0	0.03 0.00
WUNW D27 DT CP	13.9	10	12.9	0.32 0.02
WKRN-TV D27 DT LIC	1.0	0	0.0	0.00 0.00

Interference to proposal scenario 3

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W46AX-D	D27	LD	APP	BRYSON CITY, NC	W46AX-D Ch-27 0.93kW	
Undesireds:	W26EM-D	D26	LD	CP	ATHENS, GA	BPDTL20141216ABG	135.0 km
	WATE-TV	D26	DT	LIC	KNOXVILLE, TN	BMLCDT20041203AEG	76.8
	WNAL-LD	D27-	LD	LIC	SCOTTSBORO, AL	BLANK0000044789	282.7
	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	195.1
	WUNW	D27	DT	LIC	CANTON, NC	BLEDT20110921AAA	56.4
	WDYH-LD	D27	LD	LIC	Columbia, SC	BLANK0000004617	252.1

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WKRN-TV		D27	DT	LIC	NASHVILLE, TN	BLCDT20090624ABO	308.6
WEZK-LP		N28z	TX	LIC	KNOXVILLE, TN	BLTTL20001011ACO	77.0
Service area		Terrain-limited		IX-free		Percent IX	
4743.5	92,175	3986.1	66,587	3970.2	66,577	0.40	0.02
Undesired		Total IX		Unique IX		Prcnt Unique IX	
WATE-TV	D26 DT LIC	1.0	0	0.0	0	0.00	0.00
WAGA-TV	D27 DT LIC	2.0	0	1.0	0	0.03	0.00
WUNW	D27 DT LIC	13.9	10	12.9	10	0.32	0.02
WKRN-TV	D27 DT LIC	1.0	0	0.0	0	0.00	0.00