

ENGINEERING EXHIBIT

Special Temporary Authority for Digital Television Translator Station

prepared for

University of North Carolina

W19DD-D Brevard, NC

Facility ID 69220

University of North Carolina (“UNC”) is the licensee of digital television translator station W19DD-D, Channel 19, Brevard NC, Facility ID 69220. *UNC* herein seeks Special Temporary Authority (“STA”) to operate W19DD-D on Channel 27. W19DD-D’s licensed operation is displaced by a full power television station that was reassigned to a new channel.

Reassignment of nearby station WUNF-TV (Facility ID 69300, Asheville NC) from Channel 25 to Channel 20 was specified in the *Incentive Auction Closing and Channel Reassignment Public Notice (“CCRPN”*, DA 17-317, released April 13, 2017). WUNF-TV, also licensed to *UNC*, was assigned to phase 5 (testing period start date August 3, 2019 and phase completion date September 11, 2019) and has recently commenced operation on Channel 20. WUNF-TV is predicted to cause 45.2 percent interference to W19DD-D, as demonstrated in the attached Table 1.

By way of background, WUNF-TV is the primary station carried by W19DD-D. WUNF-TV is one of 12 full-power television stations licensed to *UNC*, all of which carry identical programming known as UNC-TV. W19DD-D’s 51 dB μ service contour is 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 W19DD-D 51 dB μ contour.

Owing to the eventual displacement of W19DD-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 W19DD-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 that WUNF-TV has transitioned to Channel 20, W19DD-D is experiencing considerable incoming interference from the first-adjacent channel WUNF-TV facility (only 13.0 km distant). Since the Channel 27 WUNW DTS facility will eventually provide replacement service for W19DD-D, *UNC* has not filed for a displacement channel for W19DD-D. *UNC* herein requests an STA to operate W19DD-D on Channel 27, with proposed parameters that match those on file for “Site 2” 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), the STA for *UNC* translator W46AX-D (file# 0000059103, Fac ID 69123, Bryson City NC), and the STA for *UNC* translator W42AX-D (file# 0000068739, Fac ID 69040, Bakersville NC).

As proposed herein, W19DD-D will operate at its existing antenna location on Channel 27 in lieu of the licensed Channel 19. The tower structure is associated with FCC Antenna Structure Registration number 1271385. The proposed W19DD-D STA facility will employ a replacement antenna system and no change to the overall structure height is proposed.

The proposed Channel 27 W19DD-D STA facility will operate at 0.90 kW effective radiated power, nondirectional, with circular polarization. Figure 1 depicts the 51 dB μ coverage contour of the licensed and proposed STA facilities.

Interference study per OET Bulletin 69¹ shows that the proposal complies with the FCC’s interference protection requirements toward all digital television, television translator, LPTV,

¹FCC 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

and Class A stations (existing and post-auction). FCC processing of this proposal is requested using a **1 km cell size and 0.2 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 35.5 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 2.

The licensed WUNW facility (BLEDT-20110921AAA) would receive 7.1 percent interference from the proposed STA operation.² As stated, *UNC* is also the licensee of WUNW, which is programmed identical to W19DD-D, and consents to the proposed 7.1 percent interference that would be caused to the WUNW licensed facility. As a practical matter, *UNC* will work to synchronize the WUNW and W19DD-D STA operations as DTS facilities which will reduce actual interference from the 7.1 percent result for uncorrelated facilities.

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 $0.5 \mu\text{W}/\text{cm}^2$, which is 0.1 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in

current "TVStudy" software with the default application processing template settings, 1 km cell size, and 0.2 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.

²Similarly, the WUNW Construction Permit facility ("CP" file# 0000035959) would also receive 7.1 percent interference. The CP facility technical parameters are identical to the licensed WUNW parameters, as the CP was obtained in 2017 to follow the FCC's procedures for DTS applications (requiring a DTS application to originate from a Construction Permit).

§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.

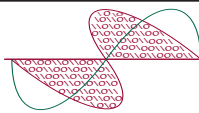
The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power 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	TVStudy Displacement Summary
Table 2	TVStudy Analysis of Proposal

Chesapeake RF Consultants, LLC

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Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

Figure 1
Coverage Contour Comparison
W19DD-D Brevard, NC
Facility ID 69220
Ch. 27 (digital) 0.9 kW

prepared for
University of North Carolina

September, 2019

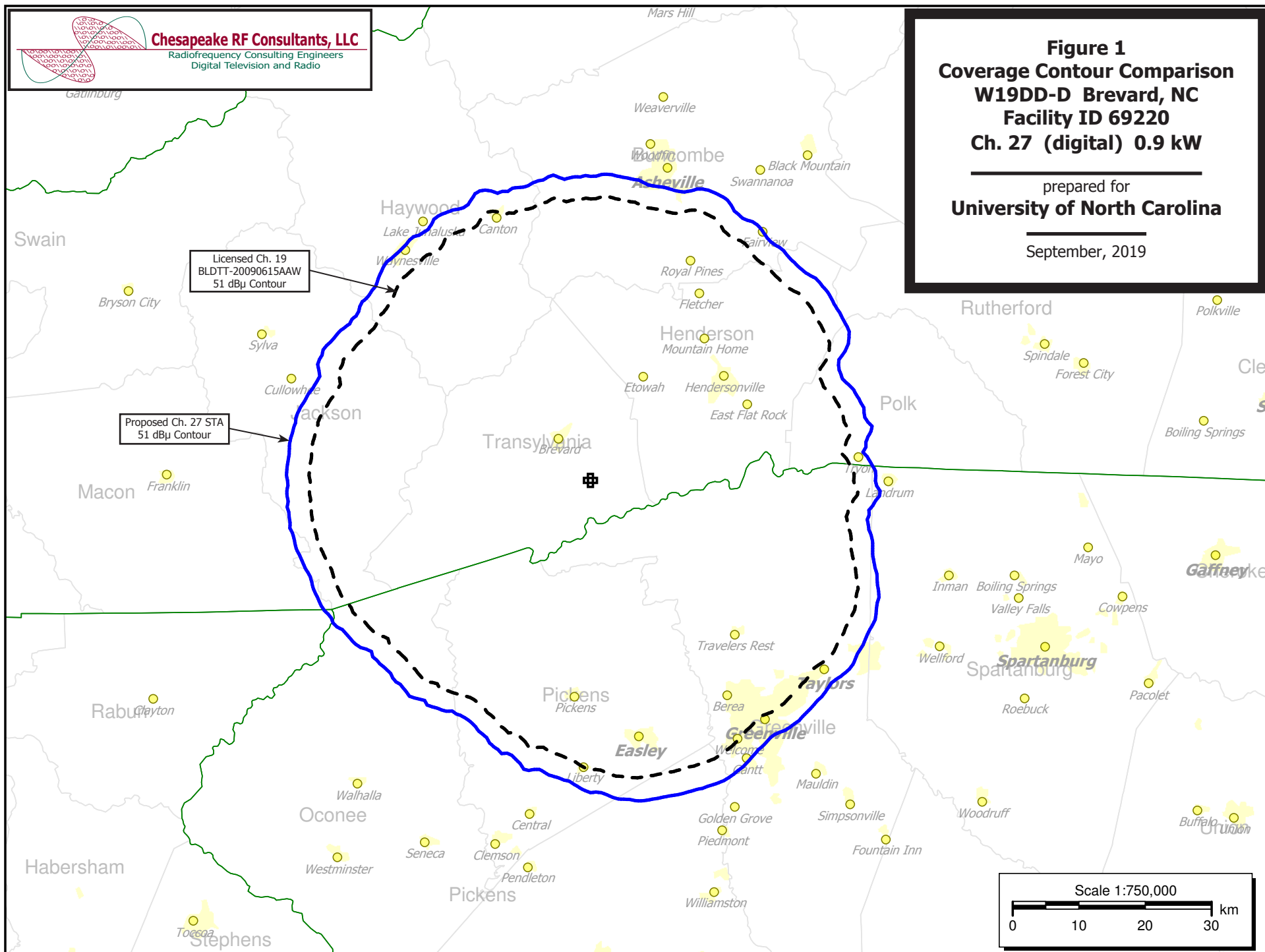


Table 1 W19DD-D Ch. 19 TV Study Displacement Summary
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Interference received from WUNF-TV Repack Ch. 20 Asheville NC

Interference to proposal scenario 1
66.04% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W19DD-D	D19	LD	LIC	BREVARD, NC	BLD TT20090615AAW	
Undesireds:	WGCL-TV	D19	DT	LIC	ATLANTA, GA	BLCDT20060113ACO	215.0 km
	WBPI-CD	D19	DC	LIC	AUGUSTA, GA	BLANK0000059661	196.8
	W19HK-D	D19	LD	LIC	BLACK MOUNTAIN, NC	BLD TT20090615AAO	51.2
	WSOC-TV	D19	DT	LIC	CHARLOTTE, NC	BLANK0000081191	177.7
	W19DB-D	D19	LD	LIC	FRANKLIN, NC	BLD TT20080829ABC	81.7
	W19CR-D	D19	LD	LIC	TRYON, NC	BLANK0000027376	41.0
	WDXA-LD	D19	LD	LIC	FLORENCE, SC	BLANK0000008880	310.1
	WKPZ-CD	D19	DC	LIC	KINGSPORT, TN	BLANK0000001584	150.3
	WUNF-TV	D20	DD	CP	ASHEVILLE, NC	BLANK0000029742	13.0

Service area		Terrain-limited		IX-free		Percent IX	
5256.9	409,576	3604.6	299,213	2368.2	101,627	34.30	66.04
Undesired		Total IX		Unique IX		Prct Unique IX	
WGCL-TV	D19 DT LIC	54.9	4,853	7.0	43	0.19	0.01
WBPI-CD	D19 DC LIC	2.0	175	0.0	0	0.00	0.00
W19HK-D	D19 LD LIC	203.0	33,854	43.8	3,825	1.22	1.28
WSOC-TV	D19 DT LIC	167.5	5,893	68.7	142	1.91	0.05
W19DB-D	D19 LD LIC	3.0	44	1.0	44	0.03	0.01
W19CR-D	D19 LD LIC	288.3	30,648	31.9	1,242	0.89	0.42
WUNF-TV	D20 DD CP	1045.0	192,182	687.2	135,089	19.06	45.15

Table 2 W19DD-D TVStudy Analysis of Proposal

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tvstudy v2.2.5 (4uoc83)
 Database: localhost, Study: W19DD-D prop STA CH-27 1.0-0.2, Model: Longley-Rice
 Start: 2019.09.28 15:24:01

Study created: 2019.09.28 15:24:01

Study build station data: LMS TV 2019-09-26

Proposal: W19DD-D D27 LD STA BREVARD, NC
 File number: W19DD-D prop STA CH-27
 Facility ID: 69220
 Station data: User record
 Record ID: 2870
 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	128.2 km
No	W26EM-D	D26	LD	LIC	ATHENS, GA	BLDTL20140919ACX	151.4
No	WLVO-LD	D26	LD	LIC	ATLANTA, GA	BLANK0000008263	215.0
No	WGPX-TV	D26	DT	LIC	BURLINGTON, NC	BLANK00000081829	268.4
No	W26FB-D	D26	LD	LIC	CANTON/WAYNESVILLE, NC	BLANK00000080640	48.1
No	WHEH-LD	D26	LD	LIC	LUMBERTON, NC	BLANK00000073372	181.4
No	W26FA-D	D26	LD	LIC	MARION, NC	BLANK00000074929	120.2
No	WNEH	D26	DT	LIC	GREENWOOD, SC	BLANK00000081201	101.0
No	WATE-TV	D26	DT	LIC	KNOXVILLE, TN	BMLCDT20041203AEG	146.4
No	WBUN-LD	D27	LD	LIC	BIRMINGHAM, AL	BLDTL20130909ACA	422.8
No	WAIQ	D27	DT	LIC	MONTGOMERY, AL	BLEDT20060706ACK	455.8
No	WNAL-LD	D27-	LD	LIC	SCOTTSBORO, AL	BLANK00000044789	350.7
No	WNAL-LD	N27-	TX	LIC	SCOTTSBORO, AL	BLTT20060126AEL	308.8
Yes	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	215.4
No	WDYH-LD	D27	LD	LIC	AUGUSTA, GA	BLANK00000004617	191.1
No	W27DT-D	D27	LD	CP	BYROMVILLE, GA	BNPDTL20100510AFT	344.7
No	W27DK-D	D27	LD	CP	COLUMBUS, GA	BNPDTL20090825BYF	372.5
No	W27DV-D	D27	LD	CP	DUBLIN, GA	BNPDTL20100510AHA	300.2
No	WTVQ-DT	D27	DT	CP	LEXINGTON, KY	BLANK00000026675	352.4
No	W41DL-D	D27	LD	CP	BOONE, NC	BLANK00000053444	147.0
Yes	WUNW	D27	DD	APP	CANTON, NC	BLANK00000036076	48.1
Yes	WUNW	D27	DT	CP	CANTON, NC	BLANK00000035959	48.1
Yes	WUNW	D27	DT	LIC	CANTON, NC	BLEDT20110921AAA	48.1
Yes	WGTV-CD	D27	DC	CP	CHARLOTTE, NC	BLANK00000080004	140.0
Yes	WCCB	D27	DT	LIC	CHARLOTTE, NC	BLCDT20020227AAZ	177.1
No	WLFL	D27	DT	LIC	RALEIGH, NC	BLCDT20090612AIF	380.3
No	WUNP-TV	D27	DT	CP	ROANOKE RAPIDS, NC	BLANK00000034416	454.3
No	WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK00000034379	318.9
No	WUDI-LD	D27	LD	LIC	MYRTLE BEACH, SC	BLANK00000004260	344.4
No	WTNB-CD	D27	DC	LIC	CLEVELAND, TN	BLANK00000001208	200.0
No	WKRN-TV	D27	DT	LIC	NASHVILLE, TN	BLCDT20090624ABO	387.1
No	WPXR-TV	D27	DT	LIC	ROANOKE, VA	BLANK00000081460	319.5
No	W16CE	D27-	LD	CP	CHARLESTON, WV	BLANK00000054050	367.1
No	WHJC-LP	D27	LD	LIC	WILLIAMSON, WV	BLDTL20100910AAH	284.1
No	WJBF	D28	DT	CP	AUGUSTA, GA	BLANK00000028403	211.7
No	WDWW-LD	D28	LD	LIC	CLEVELAND, GA	BLANK00000013970	215.0
No	WELF-TV	D28	DT	CP	DALTON, GA	BLANK00000026361	252.3
No	W08EG-D	D28	LD	CP	TOCCOA, GA	BLANK00000053814	88.6
No	W28EP-D	D28	LD	CP	BAT CAVE, ETC, NC	BDCCDTT20140611AAF	48.3
No	W28EE-D	D28	LD	LIC	CANTON, ETC., NC	BLDTT20110922AAG	53.8
No	WTVI	D28	LD	APP	CHARLOTTE, NC	BLANK00000054879	137.1
No	WGTV-CD	D28	DC	LIC	CHARLOTTE, NC	BLDTA20121102ABD	140.0
No	WMYV	D28	DT	CP	GREENSBORO, NC	BLANK00000034498	269.7
Yes	W28DB-D	D28	LD	LIC	HONEA PATH, SC	BLDTT20100825AAD	36.0
No	WEMT	D28	DT	LIC	GREENEVILLE, TN	BLANK00000072087	150.6
No	WEZK-LP	N28z	TX	LIC	KNOXVILLE, TN	BLTTL20001011ACO	146.2
No	W31AZ-D	N31-	TX	LIC	HENDERSONVILLE, NC	BLTTL19940525JJ	23.5

No non-directional AM stations found within 0.8 km

Table 2 W19DD-D TV Study Analysis of Proposal
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No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D27
Mask: Full Service
Latitude: 35 10 36.40 N (NAD83)
Longitude: 82 40 53.50 W
Height AMSL: 1192.6 m
HAAT: 0.0 m
Peak ERP: 0.900 kW
Antenna: Omnidirectional
Elev Pattern: Generic
Elec Tilt: 1.75

50.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.900 kW	456.3 m	47.1 km
45.0	0.900	423.3	46.2
90.0	0.900	356.6	44.0
135.0	0.900	509.6	49.0
180.0	0.900	491.1	48.4
225.0	0.900	339.6	43.2
270.0	0.900	450.5	46.9
315.0	0.900	406.3	45.8

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 429 m

Distance to Canadian border: 722.5 km

Distance to Mexican border: 1700.9 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 232.6 degrees Distance: 237.3 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 292.2 degrees Distance: 2052.3 km

Study cell size: 1.00 km
Profile point spacing: 0.20 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Interference to BLCDT20060728AEL LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	
Undesireds:	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	215.4 km
	WGXA	D26	DT	LIC	MACON, GA	BLANK0000074961	136.9
	WAIQ	D27	DT	LIC	MONTGOMERY, AL	BLEDT20060706ACK	240.9
	WTXL-TV	D27	DT	LIC	TALLAHASSEE, FL	BLCDT20090217ABY	349.5
	WUNW	D27	DD	APP	CANTON, NC	BLANK0000036076	236.1
	WKRN-TV	D27	DT	LIC	NASHVILLE, TN	BLCDT20090624ABO	338.0
	WELF-TV	D28	DT	CP	DALTON, GA	BLANK0000026361	151.3

	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	32716.4	6,001,261	31169.3	5,920,171	30343.4	5,871,602	0.00 0.00

Undesired			Total IX		Unique IX, before	Unique IX, after	
W19DD-D D27 LD STA		36.9	2,060			0.0	0
WGXA D26 DT LIC		74.8	1,161		69.9	69.9	965
WAIQ D27 DT LIC		279.7	13,857		218.8	218.8	8,846
WTXL-TV D27 DT LIC		79.9	5,706		41.9	41.9	2,582
WUNW D27 DD APP		366.1	27,429		366.1	329.2	25,369

Table 2 W19DD-D TVStudy Analysis of Proposal
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WKRN-TV D27 DT LIC	73.2	5,218	46.2	2,816	46.2	2,816
WELF-TV D28 DT CP	23.1	792	17.1	405	17.1	405

Interference to BLCDT20060728AEL LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	
Undesireds:	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	215.4 km
	WGXA	D26	DT	LIC	MACON, GA	BLANK0000074961	136.9
	WAIQ	D27	DT	LIC	MONTGOMERY, AL	BLEDT20060706ACK	240.9
	WTVL-TV	D27	DT	LIC	TALLAHASSEE, FL	BLCDT20090217ABY	349.5
	WUNW	D27	DT	CP	CANTON, NC	BLANK0000035959	236.1
	WKRN-TV	D27	DT	LIC	NASHVILLE, TN	BLCDT20090624ABO	338.0
	WELF-TV	D28	DT	CP	DALTON, GA	BLANK0000026361	151.3

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	32716.4	6,001,261	31169.3	5,920,171	30709.5	5,899,031	0.12 0.03
Undesired			Total IX	Unique IX, before		Unique IX, after	
W19DD-D D27 LD STA		36.9	2,060			36.9	2,060
WGXA D26 DT LIC		74.8	1,161	69.9	965	69.9	965
WAIQ D27 DT LIC		279.7	13,857	218.8	8,846	218.8	8,846
WTVL-TV D27 DT LIC		79.9	5,706	41.9	2,582	41.9	2,582
WKRN-TV D27 DT LIC		73.2	5,218	46.2	2,816	46.2	2,816
WELF-TV D28 DT CP		23.1	792	17.1	405	17.1	405

Interference to BLANK0000036076 APP scenario 1
**MX: 35.50% interference caused

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WUNW	D27	DD	APP	CANTON, NC	BLANK0000036076	
Undesireds:	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	48.1 km
	WNEH	D26	DT	LIC	GREENWOOD, SC	BLANK0000081201	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	BLANK0000080004	160.3
	WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK0000034379	352.1
	WPXR-TV	D27	DT	LIC	ROANOKE, VA	BLANK0000081460	306.1
	WEMT	D28	DT	LIC	GREENEVILLE, TN	BLANK0000072087	121.5

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	30340.4	1,869,244	23563.3	1,442,129	23017.3	1,407,387	11.89 35.50
Undesired			Total IX	Unique IX, before		Unique IX, after	
W19DD-D D27 LD STA		2923.6	513,141			2736.7	499,595
WNEH D26 DT LIC		10.0	562	1.0	6	1.0	6
WATE-TV D26 DT LIC		64.6	9,704	61.6	9,624	61.6	9,624
WAGA-TV D27 DT LIC		247.7	14,023	210.7	12,503	93.8	3,035
WTVQ-DT D27 DT CP		22.2	647	14.1	496	13.1	496
WGTB-CD D27 DC CP		192.5	9,015	151.6	6,827	122.7	5,633
WPDE-TV D27 DT CP		30.9	2,692	6.0	1,010	1.0	29
WPXR-TV D27 DT LIC		32.9	1,037	19.9	860	18.9	796
WEMT D28 DT LIC		26.2	1,006	17.2	775	17.2	775

Interference to BLANK0000035959 CP scenario 1
**IX: 7.13% interference caused

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WUNW	D27	DT	CP	CANTON, NC	BLANK0000035959	
Undesireds:	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	48.1 km
	WNEH	D26	DT	LIC	GREENWOOD, SC	BLANK0000081201	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	BLANK0000080004	160.3
	WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK0000034379	352.1

Table 2 W19DD-D TVStudy Analysis of Proposal
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	WKRN-TV	D27	DT	LIC	NASHVILLE, TN	BLCDT20090624ABO	357.6		
	WPXR-TV	D27	DT	LIC	ROANOKE, VA	BLANK0000081460	306.1		
	WEMT	D28	DT	LIC	GREENEVILLE, TN	BLANK0000072087	121.5		
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
23306.2	1,111,354	15489.1	660,180	15314.8	647,693	15077.8	601,543	1.55	7.13
Undesired				Total IX	Unique IX, before	Unique IX, after			
W19DD-D	D27	LD	STA	283.8	47,580	237.0	46,150		
WNEH	D26	DT	LIC	7.0	99	3.0	99	0.0	0
WATE-TV	D26	DT	LIC	62.6	9,401	55.5	8,270	55.5	8,270
WAGA-TV	D27	DT	LIC	80.7	2,145	69.8	2,145	38.9	1,028
WTVQ-DT	D27	DT	CP	14.1	1,543	9.1	492	9.1	492
WGTV-CD	D27	DC	CP	21.9	216	12.9	77	8.0	2
WPDE-TV	D27	DT	CP	3.0	139	0.0	0	0.0	0
WKRN-TV	D27	DT	LIC	1.0	0	1.0	0	1.0	0
WPXR-TV	D27	DT	LIC	2.0	0	0.0	0	0.0	0
WEMT	D28	DT	LIC	5.1	214	4.0	134	4.0	134

Interference to BLEDT20110921AAA LIC scenario 1
**IX: 7.13% interference caused

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WUNW	D27	DT	LIC	CANTON, NC	BLEDT20110921AAA	
Undesireds:	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	48.1 km
	WNEH	D26	DT	LIC	GREENWOOD, SC	BLANK0000081201	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
	WGTV-CD	D27	DC	CP	CHARLOTTE, NC	BLANK0000080004	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	LIC	ROANOKE, VA	BLANK0000081460	306.1
	WEMT	D28	DT	LIC	GREENEVILLE, TN	BLANK0000072087	121.5

Service area			Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
23306.2	1,111,354		15489.1	660,180	15314.8	647,693	15077.8	601,543	1.55	7.13
Undesired			Total IX		Unique IX, before		Unique IX, after			
W19DD-D	D27	LD STA	283.8	47,580			237.0	46,150		
WNEH	D26	DT LIC	7.0	99	3.0	99	0.0	0		
WATE-TV	D26	DT LIC	62.6	9,401	55.5	8,270	55.5	8,270		
WAGA-TV	D27	DT LIC	80.7	2,145	69.8	2,145	38.9	1,028		
WTVQ-DT	D27	DT CP	14.1	1,543	9.1	492	9.1	492		
WGTB-CD	D27	DC CP	21.9	216	12.9	77	8.0	2		
WPDE-TV	D27	DT CP	3.0	139	0.0	0	0.0	0		
WKRN-TV	D27	DT LIC	1.0	0	1.0	0	1.0	0		
WPXR-TV	D27	DT LIC	2.0	0	0.0	0	0.0	0		
WEMT	D28	DT LIC	5.1	214	4.0	134	4.0	134		

Interference to BLANK0000080004 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WGTV-CD	D27	DC	CP	CHARLOTTE, NC	BLANK0000080004	
Undesireds:	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	140.0 km
	WUNW	D27	DD	APP	CANTON, NC	BLANK0000036076	160.3
	WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK0000034379	199.8

Service area			Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
10565.4	2,240,093		10477.8	2,233,204	10366.1	2,217,153	10366.1	2,217,153	0.00	0.00
Undesired			Total IX		Unique IX, before		Unique IX, after			
W19DD-D	D27	LD STA	9.0	161			0.0	0		
WUNW	D27	DD APP	74.8	6,410	74.8	6,410	65.8	6,249		
WPDE-TV	D27	DT CP	36.9	9,641	36.9	9,641	36.9	9,641		

Interference to BLANK0000080004 CP scenario 2

Table 2 W19DD-D TV Study Analysis of Proposal
(page 5 of 8)



Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WGTV-CD	D27	DC	CP	CHARLOTTE, NC	BLANK0000080004	
Undesireds:	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	140.0 km
	WUNW	D27	DT	CP	CANTON, NC	BLANK0000035959	160.3
	WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK0000034379	199.8
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
10565.4 2,240,093		10477.8 2,233,204		10439.9 2,223,563		10430.9 2,223,402	0.09 0.01
Undesired		Total IX		Unique IX, before		Unique IX, after	
W19DD-D D27 LD STA		9.0 161				9.0 161	
WUNW D27 DT CP		1.0 0		1.0 0		1.0 0	
WPDE-TV D27 DT CP		36.9 9,641		36.9 9,641		36.9 9,641	

Interference to BLANK0000080004 CP scenario 3

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WGTV-CD	D27	DC	CP	CHARLOTTE, NC	BLANK0000080004	
Undesireds:	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	140.0 km
	WUNW	D27	DT	LIC	CANTON, NC	BLED20110921AAA	160.3
	WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK0000034379	199.8
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
10565.4 2,240,093		10477.8 2,233,204		10439.9 2,223,563		10430.9 2,223,402	0.09 0.01
Undesired		Total IX		Unique IX, before		Unique IX, after	
W19DD-D D27 LD STA		9.0 161				9.0 161	
WUNW D27 DT LIC		1.0 0		1.0 0		1.0 0	
WPDE-TV D27 DT CP		36.9 9,641		36.9 9,641		36.9 9,641	

Interference to BLCDT20020227AAZ LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WCCB	D27	DT	LIC	CHARLOTTE, NC	BLCDT20020227AAZ	
Undesireds:	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	177.1 km
	WGPX-TV	D26	DT	LIC	BURLINGTON, NC	BLANK0000081829	105.0
	WNEH	D26	DT	LIC	GREENWOOD, SC	BLANK0000081201	164.3
	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	367.8
	WUNW	D27	DD	APP	CANTON, NC	BLANK0000036076	199.6
	WLFL	D27	DT	LIC	RALEIGH, NC	BLCDT20090612AIF	204.8
	WPXR-TV	D27	DT	LIC	ROANOKE, VA	BLANK0000081460	221.0
	WGTV-CD	D28	DC	LIC	CHARLOTTE, NC	BLDTA20121102ABD	39.6
	WRDC	D28	DT	LIC	DURHAM, NC	BLCDT20090612AID	204.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
32628.4 3,539,254		31803.4 3,483,508		29259.1 3,233,365		29259.1 3,233,365	0.00 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
W19DD-D D27 LD STA		245.2 14,889				0.0 0	
WGPX-TV D26 DT LIC		244.7 64,898		53.4 9,676		53.4 9,676	
WNEH D26 DT LIC		1.0 36		0.0 0		0.0 0	
WAGA-TV D27 DT LIC		34.0 3,086		1.0 0		1.0 0	
WUNW D27 DD APP		894.4 81,752		773.5 74,690		587.4 63,062	
WLFL D27 DT LIC		1425.8 105,087		1015.8 43,430		1015.8 43,430	
WPXR-TV D27 DT LIC		544.4 109,285		213.3 44,563		213.3 44,563	
WGTV-CD D28 DC LIC		4.0 59		3.0 47		3.0 47	
WRDC D28 DT LIC		1.0 27		0.0 0		0.0 0	

Interference to BLCDT20020227AAZ LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WCCB	D27	DT	LIC	CHARLOTTE, NC	BLCDT20020227AAZ	
Undesireds:	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	177.1 km
	WGPX-TV	D26	DT	LIC	BURLINGTON, NC	BLANK0000081829	105.0
	WNEH	D26	DT	LIC	GREENWOOD, SC	BLANK0000081201	164.3
	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	367.8

Table 2 W19DD-D TVStudy Analysis of Proposal
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WUNW	D27	DT	CP	CANTON, NC	BLANK0000035959	199.6
WLFL	D27	DT	LIC	RALEIGH, NC	BLCDT20090612AIF	204.8
WPXR-TV	D27	DT	LIC	ROANOKE, VA	BLANK0000081460	221.0
WGTV-CD	D28	DC	LIC	CHARLOTTE, NC	BLDTA20121102ABD	39.6
WRDC	D28	DT	LIC	DURHAM, NC	BLCDT20090612AID	204.2

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
32628.4 3,539,254	31803.4 3,483,508	30017.6 3,306,740	29835.5 3,295,212	0.61 0.35

Undesired	Total IX	Unique IX, before	Unique IX, after
W19DD-D D27 LD STA	245.2 14,889	182.1 11,528	
WGPX-TV D26 DT LIC	244.7 64,898	53.4 9,676	53.4 9,676
WNEH D26 DT LIC	1.0 36	0.0 0	0.0 0
WAGA-TV D27 DT LIC	34.0 3,086	9.0 211	3.0 0
WUNW D27 DT CP	46.9 4,541	14.9 1,315	11.0 1,215
WLFL D27 DT LIC	1425.8 105,087	1086.8 45,972	1057.8 45,226
WPXR-TV D27 DT LIC	544.4 109,285	213.3 44,563	213.3 44,563
WGTV-CD D28 DC LIC	4.0 59	3.0 47	3.0 47
WRDC D28 DT LIC	1.0 27	0.0 0	0.0 0

Interference to BLCDT20020227AAZ LIC scenario 3

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WCCB	D27	DT	LIC	CHARLOTTE, NC	BLCDT20020227AAZ	
Undesireds:	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	177.1 km
	WGPX-TV	D26	DT	LIC	BURLINGTON, NC	BLANK0000081829	105.0
	WNEH	D26	DT	LIC	GREENWOOD, SC	BLANK0000081201	164.3
	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	367.8
	WUNW	D27	DT	LIC	CANTON, NC	BLEDT20110921AAA	199.6
	WLFL	D27	DT	LIC	RALEIGH, NC	BLCDT20090612AIF	204.8
	WPXR-TV	D27	DT	LIC	ROANOKE, VA	BLANK0000081460	221.0
	WGTV-CD	D28	DC	LIC	CHARLOTTE, NC	BLDTA20121102ABD	39.6
	WRDC	D28	DT	LIC	DURHAM, NC	BLCDT20090612AID	204.2

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
32628.4 3,539,254	31803.4 3,483,508	30017.6 3,306,740	29835.5 3,295,212	0.61 0.35

Undesired	Total IX	Unique IX, before	Unique IX, after
W19DD-D D27 LD STA	245.2 14,889	182.1 11,528	
WGPX-TV D26 DT LIC	244.7 64,898	53.4 9,676	53.4 9,676
WNEH D26 DT LIC	1.0 36	0.0 0	0.0 0
WAGA-TV D27 DT LIC	34.0 3,086	9.0 211	3.0 0
WUNW D27 DT LIC	46.9 4,541	14.9 1,315	11.0 1,215
WLFL D27 DT LIC	1425.8 105,087	1086.8 45,972	1057.8 45,226
WPXR-TV D27 DT LIC	544.4 109,285	213.3 44,563	213.3 44,563
WGTV-CD D28 DC LIC	4.0 59	3.0 47	3.0 47
WRDC D28 DT LIC	1.0 27	0.0 0	0.0 0

Interference to BLDTT20100825AAD LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W28DB-D	D28	LD	LIC	HONEA PATH, SC	BLDTT20100825AAD	
Undesireds:	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	36.0 km
	WUNW	D27	DD	APP	CANTON, NC	BLANK0000036076	83.1
	WJBF	D28	DT	CP	AUGUSTA, GA	BLANK0000028403	178.7
	WDWW-LD	D28	LD	LIC	CLEVELAND, GA	BLANK0000013970	217.1
	W08EG-D	D28	LD	CP	TOCCOA, GA	BLANK0000053814	94.5
	W28EP-D	D28	LD	CP	BAT CAVE, ETC, NC	BDCCDTT20140611AAF	56.4
	W28EE-D	D28	LD	LIC	CANTON, ETC., NC	BLDTT20110922AAG	77.9
	WMYV	D28	DT	CP	GREENSBORO, NC	BLANK0000034498	256.0
	WEMT	D28	DT	LIC	GREENEVILLE, TN	BLANK0000072087	169.9
	W29DN-D	D29	LD	LIC	ATHENS, GA	BLDTL20140221ACE	143.6
	W29FE-D	D29	LD	LIC	BAT CAVE, ETC., NC	BLANK0000073778	55.4
	W08BF-D	D29	LD	APP	SPRUCE PINE, NC	BDISDTT20091001AKH	108.1

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
10743.6 1,243,313	9791.0 1,155,086	9439.9 1,132,612	9439.9 1,132,612	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
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Table 2 W19DD-D TVStudy Analysis of Proposal
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W19DD-D D27 LD STA	8.0	6			0.0	0
WUNW D27 DD APP	4.0	0	1.0	0	0.0	0
WJBF D28 DT CP	108.9	4,014	89.9	3,817	85.9	3,811
W08EG-D D28 LD CP	168.5	16,945	161.4	16,854	161.4	16,854
W28EP-D D28 LD CP	83.7	1,712	75.7	1,469	75.7	1,469
W28EE-D D28 LD LIC	2.0	0	0.0	0	0.0	0
WMYV D28 DT CP	7.0	0	2.0	0	2.0	0
WEMT D28 DT LIC	1.0	0	0.0	0	0.0	0
W29FE-D D29 LD LIC	1.0	0	0.0	0	0.0	0
W08BF-D D29 LD APP	2.0	137	0.0	0	0.0	0

Interference to BLDTT20100825AAD LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W28DB-D	D28	LD	LIC	HONEA PATH, SC	BLDTT20100825AAD	
Undesireds:	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	36.0 km
	WUNW	D27	DT	CP	CANTON, NC	BLANK0000035959	83.1
	WJBF	D28	DT	CP	AUGUSTA, GA	BLANK0000028403	178.7
	WDWW-LD	D28	LD	LIC	CLEVELAND, GA	BLANK0000013970	217.1
	W08EG-D	D28	LD	CP	TOCCOA, GA	BLANK0000053814	94.5
	W28EP-D	D28	LD	CP	BAT CAVE, ETC, NC	BDCCDTT20140611AAF	56.4
	W28EE-D	D28	LD	LIC	CANTON, ETC., NC	BLDTT20110922AAG	77.9
	WMYV	D28	DT	CP	GREENSBORO, NC	BLANK0000034498	256.0
	WEMT	D28	DT	LIC	GREENEVILLE, TN	BLANK0000072087	169.9
	W29DN-D	D29	LD	LIC	ATHENS, GA	BLDTL20140221ACE	143.6
	W29FE-D	D29	LD	LIC	BAT CAVE, ETC., NC	BLANK0000073778	55.4
	W08BF-D	D29	LD	APP	SPRUCE PINE, NC	BDISDTT20091001AKH	108.1

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
10743.6 1,243,313	9791.0 1,155,086	9440.9 1,132,612	9439.9 1,132,612	0.01 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
W19DD-D D27 LD STA	8.0 6	1.0 0	
WJBF D28 DT CP	108.9 4,014	90.9 3,817	85.9 3,811
W08EG-D D28 LD CP	168.5 16,945	161.4 16,854	161.4 16,854
W28EP-D D28 LD CP	83.7 1,712	75.7 1,469	75.7 1,469
W28EE-D D28 LD LIC	2.0 0	0.0 0	0.0 0
WMYV D28 DT CP	7.0 0	2.0 0	2.0 0
WEMT D28 DT LIC	1.0 0	0.0 0	0.0 0
W29FE-D D29 LD LIC	1.0 0	0.0 0	0.0 0
W08BF-D D29 LD APP	2.0 137	0.0 0	0.0 0

Interference to proposal scenario 1

**MX: 66.69% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	
Undesireds:	W26EM-D	D26	LD	CP	ATHENS, GA	BPDTL20141216ABG	128.2 km
	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	215.4
	WUNW	D27	DD	APP	CANTON, NC	BLANK0000036076	48.1
	WGTV-CD	D27	DC	CP	CHARLOTTE, NC	BLANK0000080004	140.0
	WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK0000034379	318.9
	W28DB-D	D28	LD	LIC	HONEA PATH, SC	BLDTT20100825AAD	36.0

Service area	Terrain-limited	IX-free	Percent IX
6756.5 669,082	4997.0 485,118	3264.0 161,589	34.68 66.69

Undesired	Total IX	Unique IX	Prct Unique IX
WAGA-TV D27 DT LIC	56.0 8,905	0.0 0	0.00 0.00
WUNW D27 DD APP	1733.0 323,529	1392.9 178,500	27.87 36.80
WGTV-CD D27 DC CP	14.0 828	0.0 0	0.00 0.00
WPDE-TV D27 DT CP	1.0 0	0.0 0	0.00 0.00
W28DB-D D28 LD LIC	314.2 141,315	0.0 0	0.00 0.00

Interference to proposal scenario 2

31.47% interference received

Call	Chan	Svc	Status	City, State	File Number	Distance
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Table 2 W19DD-D TVStudy Analysis of Proposal
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Desired:	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	
Undesireds:	W26EM-D	D26	LD	CP	ATHENS, GA	BPDTL20141216ABG	128.2 km
	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	215.4
	WUNW	D27	DT	CP	CANTON, NC	BLANK0000035959	48.1
	WGTB-CD	D27	DC	CP	CHARLOTTE, NC	BLANK0000080004	140.0
	WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK0000034379	318.9
	W28DB-D	D28	LD	LIC	HONEA PATH, SC	BLDTT20100825AAD	36.0

Service area	Terrain-limited	IX-free	Percent IX
6756.5 669,082	4997.0 485,118	4606.2 332,464	7.82 31.47

Undesired	Total IX	Unique IX	Prcnt Unique IX
WAGA-TV D27 DT LIC	56.0 8,905	21.0 2,917	0.42 0.60
WUNW D27 DT CP	54.7 8,442	50.7 7,625	1.02 1.57
WGTB-CD D27 DC CP	14.0 828	2.0 18	0.04 0.00
WPDE-TV D27 DT CP	1.0 0	0.0 0	0.00 0.00
W28DB-D D28 LD LIC	314.2 141,315	273.2 135,653	5.47 27.96

Interference to proposal scenario 3
31.47% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W19DD-D	D27	LD	STA	BREVARD, NC	W19DD-D prop STA CH-27	
Undesireds:	W26EM-D	D26	LD	CP	ATHENS, GA	BPDTL20141216ABG	128.2 km
	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	215.4
	WUNW	D27	DT	LIC	CANTON, NC	BLCDT20110921AAA	48.1
	WGTB-CD	D27	DC	CP	CHARLOTTE, NC	BLANK0000080004	140.0
	WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK0000034379	318.9
	W28DB-D	D28	LD	LIC	HONEA PATH, SC	BLDTT20100825AAD	36.0

Service area	Terrain-limited	IX-free	Percent IX
6756.5 669,082	4997.0 485,118	4606.2 332,464	7.82 31.47

Undesired	Total IX	Unique IX	Prcnt Unique IX
WAGA-TV D27 DT LIC	56.0 8,905	21.0 2,917	0.42 0.60
WUNW D27 DT LIC	54.7 8,442	50.7 7,625	1.02 1.57
WGTB-CD D27 DC CP	14.0 828	2.0 18	0.04 0.00
WPDE-TV D27 DT CP	1.0 0	0.0 0	0.00 0.00
W28DB-D D28 LD LIC	314.2 141,315	273.2 135,653	5.47 27.96