



Kessler and Gehman Associates
Consultants • Broadcast • Wireless

**DIGITAL TELEVISION
TRANSLATOR POST
TRANSITION CHANNEL
DISPLACEMENT RELIEF
APPLICATION AMENDMENT**

CALL SIGN: W08EG-D
FACILITY ID: 23924
FCC FILE NO.: 0000053814
LOCATION: Toccoa, GA

Prepared For:

Georgia Public Telecommunications
Commission
260 14th St NW
Atlanta, GA 30318-5360

Prepared By:

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Prepared On:

December 11, 2018

1.0 BACKGROUND

Georgia Public Telecommunications Commission (“GPTC”) is the licensee of a digital Low Power Television (“LPTV”) Station having call sign W08EG-D¹ which is licensed² to operate on channel 8 and was eligible to participate in the special displacement window³. An application⁴ was filed during the window to modify the channel from 8 to 15. Subsequent to the closing of the filing window, W08EG-D was identified as mutually exclusive with W31AZ-D⁵ owned by Carolina Christian Broadcasting, Inc. (“CCB”) in the Settlement Window Public Notice⁶.

2.0 SCOPE OF AMENDMENT AND SETTLEMENT AGREEMENT

Minor engineering solutions were considered to resolve mutual exclusive (“MX”) group #64; however, all solutions required a compromise to one or both coverage contours. Alternative to a coverage area compromise, it is herein proposed to amend W08EG-D to specifying channel 28 instead of channel 15 with no other amended technical parameters required. The W08EG-D channel change will resolving MX group #64 without compromise of coverage for either applicant.

3.0 ALLOCATION ANALYSIS

Appendix A are the summarized results from TVStudy V2.2.5. As indicated the proposed W08EG-D facility as amended on channel 28 is predicted to cause 3.23% unique prohibited interference to W28DB-D having FCC File.: BLDTT-20100825AAD which is owned by CCB and party to the agreement of MX group #64. CCB will vacate W28DB-D from Channel 28 in 2019 since it is being displaced by post-repack station WJBF.

¹ Facility ID: 23924

² FCC File No.: BLDTV-20091008ACL

³ See *Incentive Auction Task Force and Media Bureau Announce Post-incentive Auction Special Displacement Window April 10, 2018, Through May 15, 2018, and Make Location and Channel Data Available*, Public Notice, DA/FCC: DA-18-124 Released On: Feb 9, 2018

⁴ FCC File No.: 0000053814

⁵ Facility ID: 9058

⁶ See *Incentive Auction Task Force and Media Bureau Announce Settlement Opportunity for Mutually Exclusive Displacement Applications Filed During the Special Displacement Window*, Public Notice, DA 18-1108, released October 30, 2018. MX group #64

Appendix B are the summarized results from TVStudy V2.2.5 which excludes W28DB-D from the analysis. As demonstrated the proposed W08EG-D facility is not predicted to cause any prohibited interference to any authorized or pending facility with the W28DB-D masking removed and receives 9.61% cumulative inbound interference which the applicant hereby accepts.

4.0 RADIO FREQUENCY RADIATION COMPLIANCE

A theoretical analysis has been conducted of the human exposure to radio frequency radiation ("RFR") using the calculation methodology described in OET Bulletin 65, Edition 97-01. The RFR analysis is conducted pursuant to the following methodology:

Terrain⁷ extraction is compiled from the proposed tower site to radial lengths of 0.25 miles in 0.001 mile increments for 360 radials. The power density is calculated for each terrain point at 6 feet above ground level using the elevation and azimuth pattern of the proposed broadcast antenna. The power density calculations are conducted using the lower edge of the proposed channel frequency. To account for ground reflections, a coefficient of 1.6 was included in the calculation.

The resulting cylindrical polar analysis is then summarized into a coordinate plane graph using the following methodology:

Starting from the origin the maximum calculated RFR value is determined among the 360 degree radials for each 0.001 mile increment, the value is then converted into a percentage of the maximum allowable general population or uncontrolled exposure and plotted as a function of perpendicular distance from the tower.

⁷ Terrain extraction is based upon a 3 arc second point spacing terrain database.

The resulting RFR study in Appendix C demonstrates that the peak exposure is 2.4% of the most restrictive permissible exposure threshold. Pursuant to OET Bulletin 65 concerning multiple-user transmitter sites only those licensees whose transmitters produce power density levels greater than 5.0% of the exposure limit are considered significant contributors to RFR. Since the proposed operation is within 5% of the most permissible exposure at any location 2 meters above the ground, it is not considered a significant contributor to RFR exposure. Thus, contributions to exposure from other RF sources in the vicinity of the proposed facility were not considered. The instant application is compliant with the FCC limits for human exposure to RF radiation and is excluded from further environmental processing since no changes are proposed to the tower structure in order to accommodate the proposed antenna.

A chain link fence encloses the support structure and the applicant will cooperate with any other users of the tower by reducing the power to the antenna or if necessary completely cutting it off to protect maintenance workers on the tower.

5.0 CERTIFICATION

The foregoing statement and the report regarding the engineering work are true and correct to the best of my knowledge. Executed December 11, 2018.

Kessler and Gehman Associates, Inc.



Ryan Wilhour
Consulting Engineer

W08EG-D – Post Transition Channel Displacement Relief Application Amendment

Toccoa, GA

APPENDIX A – TVStudy v2.2.5 Allocation Analysis

Study created: 2018.12.11 09:12:04

Study build station data: LMS TV 2018-12-10

Proposal: W08EG-D D28 LD APP TOCCOA, GA
File number: W08EG-D Ch 28
Facility ID: 23924
Station data: User record
Record ID: 3606
Country: U.S.

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

Search options:
Non-U.S. records included
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	126.8 km
No	WDYH-LD	D27	LD	LIC	AUGUSTA, GA	BLANK0000004617	179.2
Yes	WUNW	D27	DD	APP	CANTON, NC	BLANK0000036076	114.5
Yes	WUNW	D27	DT	CP	CANTON, NC	BLANK0000035959	114.5
Yes	WUNW	D27	DT	LIC	CANTON, NC	BLEDT20110921AAA	114.5
No	WCCB	D27	DT	LIC	CHARLOTTE, NC	BLCDT20020227AAZ	250.5
No	WTNB-CD	D27	DC	LIC	CLEVELAND, TN	BLANK0000001208	153.3
No	WKPT-TV	D27	DT	LIC	KINGSPORT, TN	BLANK0000003746	231.0
No	WUOA-LD	D28	LD	CP	BIRMINGHAM, AL	BLANK0000051651	340.8
No	WCQT-LP	D28	LD	CP	CULLMAN, AL	BLANK0000054789	322.8
No	WTTO	D28	DT	LIC	HOMEWOOD, AL	BLCDT20060406AAG	340.8
No	WMCF-TV	D28	DT	CP	MONTGOMERY, AL	BLANK0000042300	359.2
No	WYAM-LD	D28	LD	CP	PRICEVILLE, AL	BLANK0000054643	324.7
Yes	WTHC-LD	D28	LD	CP	ATLANTA, GA	BLANK0000054847	152.7
Yes	WJBF	D28	DT	CP	AUGUSTA, GA	BLANK0000028403	194.4
No	WJEA-LD	D28	LD	CP	AUGUSTA, GA	BNPDTL20100401AAG	181.3
Yes	WDWW-LD	D28	LD	LIC	CLEVELAND, GA	BLANK0000013970	126.4
Yes	WDWW-LD	D28	LD	CP	CLEVELAND, GA	BLANK0000058319	126.4
No	W28ER-D	D28	LD	CP	COLUMBUS, GA	BNPDTL20090825BAW	277.5
Yes	WELF-TV	D28	DT	CP	DALTON, GA	BLANK0000026361	189.2
No	W42DU-D	D28	LD	CP	LA GRANGE, GA	BLANK0000053057	181.6
No	NEW	D28	LD	APP	MACON, GA	BNPDTL20090825BST	207.3
No	NEW	D28	LD	APP	MACON, GA	BNPDTL20090825AWJ	207.1
No	NEW	D28	LD	APP	WARNER ROBBINS, GA	BNPDTL20090825AFG	207.5
No	WLEX-TV	D28	DT	CP	LEXINGTON, KY	BLANK0000028121	391.7
No	W28EP-D	D28	LD	CP	BAT CAVE, ETC, NC	BDCCDTT20140611AAF	136.5
No	W28EE-D	D28	LD	LIC	CANTON, ETC., NC	BLDTT20110922AAG	138.8
No	WTVI	D28	LD	APP	CHARLOTTE, NC	BLANK0000054879	223.0
No	WGTB-CD	D28	DC	CP	CHARLOTTE, NC	BLANK0000036111	217.9
No	WGTB-CD	D28	DC	LIC	CHARLOTTE, NC	BLDTA20121102ABD	217.9
No	WRDC	D28	DT	LIC	DURHAM, NC	BLCDT20090612AID	454.6
No	WMYV	D28	DT	CP	GREENSBORO, NC	BLANK0000034498	350.5
No	WHMC	D28	DT	CP	CONWAY, SC	BLANK0000034492	397.7
No	WTGS	D28	DT	LIC	HARDEEVILLE, SC	BLCDT20090706AEU	341.3
Yes	W28DB-D	D28	LD	LIC	HONEA PATH, SC	BLDTT20100825AAD	94.5
No	WJNI-LD	D28	LD	CP	NORTH CHARLESTON, SC	BLANK0000054748	354.5
No	WRJA-TV	D28	DT	LIC	SUMTER, SC	BLEDT20040805ABA	295.5
No	WEMT	D28	DT	CP	GREENEVILLE, TN	BLANK0000034887	234.0
No	WEZK-LP	N28z	TX	LIC	KNOXVILLE, TN	BLTTL20001011ACO	164.0
No	WKUW-LD	D28	LD	CP	WHITE HOUSE, TN	BLANK0000059637	361.3
No	W28EM-D	D28	LD	CP	ROANOKE, VA	BDCCDTT20120710ABX	417.3
No	W29DN-D	D29	LD	LIC	ATHENS, GA	BLDTL20140221ACE	91.2
Yes	W29DN-D	D29	LD	CP	ATHENS, GA	BPDTL20140228AEM	45.8
No	WYGA-CD	D29	DC	CP	ATLANTA, GA	BLANK0000030674	132.7
No	WANN-CD	D29	DC	LIC	ATLANTA, GA	BLDTA20120402AMZ	126.4
No	NEW	D29	LD	APP	MACON, GA	BNPDTT20090825BMS	209.9

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No	W41DI-D	D29	LD	APP	BAT CAVE, ETC., NC	BLANK0000053440	135.3
No	W08AO-D	D29	LD	APP	CANTON, NC	BDISDTT20090928ACC	114.4
No	W29DE-D	D29	LD	LIC	HAYESVILLE, NC	BLDTT20090210AAS	62.6
No	WSQY-LP	D29	LD	CP	SPARTANBURG, SC	BLANK0000059067	94.5
No	WTCI	D29	DT	LIC	CHATTANOOGA, TN	BLANK0000001535	186.9
No	WKOP-TV	D29	DT	CP	KNOXVILLE, TN	BLANK0000024513	163.2
No	W31AZ-D	N31-	TX	LIC	HENDERSONVILLE, NC	BLTTL19940525JJ	110.1

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D28
Mask: Full Service
Latitude: 34 36 32.70 N (NAD83)
Longitude: 83 21 51.20 W
Height AMSL: 472.5 m
HAAT: 122.6 m
Peak ERP: 15.0 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 1.00

50.1 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	15.0 kW	73.7 m	40.1 km
45.0	15.0	169.7	49.0
90.0	15.0	237.3	52.9
135.0	15.0	190.1	50.2
180.0	15.0	208.3	51.3
225.0	15.0	61.3	38.1
270.0	15.0	36.2	31.9
315.0	15.0	3.9	30.2

Distance to Canadian border: 787.8 km

Distance to Mexican border: 1614.3 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 236.8 degrees Distance: 150.0 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 294.1 degrees Distance: 2019.9 km

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

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

**IX check failure to BLDTT20100825AAD LIC scenario 1, 3.23% interference caused
**IX check failure to BLDTT20100825AAD LIC scenario 2, 3.23% interference caused

---- Below is IX received by proposal W08EG-D Ch 28 ----

Proposal receives 28.15% interference from scenario 1
Proposal receives 32.97% interference from scenario 2
Proposal receives 28.14% interference from scenario 3
Proposal receives 32.95% interference from scenario 4

W08EG-D – Post Transition Channel Displacement Relief Application Amendment

Toccoa, GA

APPENDIX B – TVStudy v2.2.5 Allocation Analysis Excluding W28DB-D

Study created: 2018.12.11 09:19:26

Study build station data: LMS TV 2018-12-10

Proposal: W08EG-D D28 LD APP TOCCOA, GA
File number: W08EG-D Ch 28
Facility ID: 23924
Station data: User record
Record ID: 3607
Country: U.S.

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

Search options:
Non-U.S. records included
Baseline record excluded if station has CP

Individual records excluded:
20100825AAD W28DB-D D28 LD LIC HONEA PATH, SC BLDTT20100825AAD

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WAGA-TV	D27	DT	LIC	ATLANTA, GA	BLCDT20060728AEL	126.8 km
No	WDYH-LD	D27	LD	LIC	AUGUSTA, GA	BLANK0000004617	179.2
Yes	WUNW	D27	DD	APP	CANTON, NC	BLANK00000036076	114.5
Yes	WUNW	D27	DT	CP	CANTON, NC	BLANK00000035959	114.5
Yes	WUNW	D27	DT	LIC	CANTON, NC	BLCDT20110921AAA	114.5
No	WCCB	D27	DT	LIC	CHARLOTTE, NC	BLCDT20020227AAZ	250.5
No	WTNB-CD	D27	DC	LIC	CLEVELAND, TN	BLANK0000001208	153.3
No	WKPT-TV	D27	DT	LIC	KINGSPORT, TN	BLANK0000003746	231.0
No	WUOA-LD	D28	LD	CP	BIRMINGHAM, AL	BLANK00000051651	340.8
No	WCQT-LP	D28	LD	CP	CULLMAN, AL	BLANK00000054789	322.8
No	WTOO	D28	DT	LIC	HOMEWOOD, AL	BLCDT20060406AAG	340.8
No	WMCF-TV	D28	DT	CP	MONTGOMERY, AL	BLANK00000042300	359.2
No	WYAM-LD	D28	LD	CP	PRICEVILLE, AL	BLANK00000054643	324.7
Yes	WTHC-LD	D28	LD	CP	ATLANTA, GA	BLANK00000054847	152.7
Yes	WJBF	D28	DT	CP	AUGUSTA, GA	BLANK00000028403	194.4
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Yes	WDWW-LD	D28	LD	LIC	CLEVELAND, GA	BLANK00000013970	126.4
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No	W28ER-D	D28	LD	CP	COLUMBUS, GA	BNPDTL20090825BAW	277.5
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No	NEW	D28	LD	APP	MACON, GA	BNPDTL20090825BST	207.3
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No	WTCI	D29	DT	LIC	CHATTANOOGA, TN	BLANK0000001535	186.9
No	WKOP-TV	D29	DT	CP	KNOXVILLE, TN	BLANK00000024513	163.2
No	W3IAZ-D	N31-	TX	LIC	HENDERSONVILLE, NC	BLTTL19940525JJ	110.1

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Peak ERP: 15.0 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 1.00

50.1 dBu contour:

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

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

---- Below is IX received by proposal W08EG-D Ch 28 ----

Proposal receives 3.69% interference from scenario 1
Proposal receives 9.61% interference from scenario 2
Proposal receives 3.45% interference from scenario 3
Proposal receives 9.37% interference from scenario 4
No IX check failures found.

APPENDIX C – Far Field Exposure to RF Emissions

