

**WTHC-LD DISPLACEMENT APPLICATION FOR CH 3 3 kW OMNI-DIRECTIONAL  
FACILITY ID 65409  
ATLANTA, GEORGIA  
ENGINEERING NARRATIVE AND RF RADIATION ENVIRONMENTAL ANALYSIS  
APRIL 2019**

WTHC-LD is licensed on CH 42 and considered displaced as the channel of operation is above television CH 36. This situation is believed to qualify WTHC-LD as displaced and eligible to change channels. The proposed facility is otherwise believed to qualify as a minor change as there is abundant contour overlap between the proposed and authorized facilities as depicted on Figure 1 and the proposed site location is 36.6 kilometers from the current licensed site in compliance with 74.787 (b) (iii). FCC TVStudy software was utilized to determine the interference levels associated with the proposed WTHC-LD CH 3 facility and they are pasted in below.

The applicant proposes herein to locate at tower Registration #1035911. The proposed antenna system is a Dielectric DCR-Q custom antenna with an Omni pattern. The antenna is a VHF low band, ring type, elliptically polarized with 0.5 degrees of beam tilt with a radiation center 67 meters above ground. Utilizing formula 10 OF OET Bulletin No. 65, Edition 97-01, a value F of 0.5 has been used to calculate the power density 2 meters above ground. The maximum power density is 11.85 uw/cm squared calculated for an ERP of 3,000 watts H. polarization and 3,000 watts V. polarization. This value is 5.9% of the Public Exposure MPE per section 1.1310. Based on this analysis, it is believed that the proposed facility follows OET-65 Guidelines.

The applicant will reduce power or cease transmission as required to meet FCC OET-65 Guidelines.

The proposed tower is existing along with the transmitter building, access road and power.

Below is a copy of the TVStudy interference analysis for CH 3 based on the facilities described above. As can be seen at the conclusion of the report, there is no impermissible ISIX interference.

## TVStudy Report: Proposed facility

Study created: 2019.04.18 11:13:37

Study build station data: LMS TV 2019-04-18

Proposal: WTHC-LD D3 LD LIC ATLANTA, GA  
File number: BLDTL20060511ABF  
Facility ID: 65409  
Station data: User record  
Record ID: 221  
Country: U.S.

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	WUVM-LP	D2z	LD	CP	ATLANTA, GA	BLANK0000052455	42.7 km
No	WGGS-TV	D2	DT	CP	GREENVILLE, SC	BLANK0000034219	250.8
No	WBCF-LP	N3z	TX	LIC	FLORENCE, AL	BLTVL19890508IC	334.0
No	WDVZ-CD	D3	DC	LIC	GREENSBORO, AL	BLANK0000001620	287.2
No	W03AK-D	D3	LD	LIC	ELA, ETC., NC	BLDTV20120620ABW	236.2
No	WWWB-LD	D3	LD	CP	CLARKRANGE, TN	BLANK0000010853	276.0
No	WWWB-LD	D3	LD	LIC	CLARKRANGE, TN	BLDVL20120106ABC	288.8
No	W04DN-D	D4	LD	CP	AUBURN, AL	BNPDVL20091020AAP	134.3
No	WNHT-LD	D4	LD	LIC	MONTGOMERY, AL	BLANK0000013269	213.2
No	WUVM-LP	N4z	TX	LIC	ATLANTA, GA	BLTVL20030523AEX	42.7
Yes	WNGH-TV	D4	DT	CP	CHATSWORTH, GA	BLANK0000029684	148.7

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D3  
Mask: Full Service  
Latitude: 33 25 56.90 N (NAD83)

Longitude: 84 26 25.40 W  
Height AMSL: 354.1 m  
HAAT: 0.0 m  
Peak ERP: 3.00 kW  
Antenna: OMNI 0.0 deg  
Elev Pattn: Generic  
Elec Tilt: 0.50

43.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	3.00 kW	86.8 m	45.6 km
45.0	3.00	93.9	46.9
90.0	3.00	81.2	44.6
135.0	3.00	105.1	48.9
180.0	3.00	95.0	47.1
225.0	3.00	108.7	49.5
270.0	3.00	85.2	45.3
315.0	3.00	87.2	45.7

Database HAAT does not agree with computed HAAT  
Database HAAT: 0 m    Computed HAAT: 93 m

Distance to Canadian border: 929.3 km

Distance to Mexican border: 1460.9 km

Conditions at FCC monitoring station: Powder Springs GA  
Bearing: 331.3 degrees    Distance: 54.5 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 297.9 degrees    Distance: 1988.1 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%

----- Below is IX received by proposal BLDTL20060511ABF -----

Proposal receives 10.10% interference from scenario 2

No IX check failures found.

## TVIX

tvstudy v2.2.5 (4uoc83)  
Database: 127.0.0.1, Study: BLDTL20060511ABF #311, Model: Longley-Rice  
Start: 2019.04.18 11:03:31

Study created: 2019.04.18 11:03:31

Study build station data: LMS TV 2019-04-18

Proposal: WTHC-LD D3 LD LIC ATLANTA, GA  
File number: BLDTL20060511ABF  
Facility ID: 65409  
Station data: User record  
Record ID: 220  
Country: U.S.

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	WUVM-LP	D2z	LD	CP	ATLANTA, GA	BLANK0000052455	42.7 km
No	WGGs-TV	D2	DT	CP	GREENVILLE, SC	BLANK0000034219	250.8
No	WBCF-LP	N3z	TX	LIC	FLORENCE, AL	BLTVL19890508IC	334.0
No	WDVZ-CD	D3	DC	LIC	GREENSBORO, AL	BLANK0000001620	287.2
No	W03AK-D	D3	LD	LIC	ELA, ETC., NC	BLDTV20120620ABW	236.2
No	WWWB-LD	D3	LD	CP	CLARKRANGE, TN	BLANK0000010853	276.0
No	WWWB-LD	D3	LD	LIC	CLARKRANGE, TN	BLDVL20120106ABC	288.8
No	W04DN-D	D4	LD	CP	AUBURN, AL	BNPDVL20091020AAP	134.3
No	WNHT-LD	D4	LD	LIC	MONTGOMERY, AL	BLANK0000013269	213.2
No	WUVM-LP	N4z	TX	LIC	ATLANTA, GA	BLTVL20030523AEX	42.7
Yes	WNGH-TV	D4	DT	CP	CHATSWORTH, GA	BLANK0000029684	148.7

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D3  
Mask: Full Service  
Latitude: 33 25 56.90 N (NAD83)  
Longitude: 84 26 25.40 W  
Height AMSL: 354.1 m  
HAAT: 0.0 m  
Peak ERP: 1.00 kW  
Antenna: OMNI 0.0 deg  
Elev Pattn: Generic  
Elec Tilt: 0.50

43.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	1.00 kW	86.8 m	38.2 km
45.0	1.00	93.9	39.3
90.0	1.00	81.2	37.2
135.0	1.00	105.1	41.0
180.0	1.00	95.0	39.5
225.0	1.00	108.7	41.5
270.0	1.00	85.2	37.9
315.0	1.00	87.2	38.2

Database HAAT does not agree with computed HAAT

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Distance to Canadian border: 929.3 km

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Conditions at FCC monitoring station: Powder Springs GA

Bearing: 331.3 degrees    Distance: 54.5 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 297.9 degrees    Distance: 1988.1 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%

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 Interference to BLANK0000052455 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WUVM-LP	D2z	LD	CP	ATLANTA, GA	BLANK0000052455	
Undesireds:	WTHC-LD	D3	LD	LIC	ATLANTA, GA	BLDTL20060511ABF	42.7 km
	WHDF	D2	DT	LIC	FLORENCE, AL	BLANK0000071601	288.8
	W02AF-D	D2	LD	LIC	SYLVA, ETC., NC	BLANK0000008418	201.3
	WGGG-TV	D2	DT	CP	GREENVILLE, SC	BLANK0000034219	217.1
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	12503.2	4,895,445	12326.0	4,879,028	11915.9	4,806,535	11887.1 4,797,289 0.24 0.19
Undesired				Total IX	Unique IX, before	Unique IX, after	
WTHC-LD D3 LD LIC		28.8		9,246		28.8	9,246
WHDF D2 DT LIC		6.9		166	5.0 32	5.0	32
WGGG-TV D2 DT CP		405.1		72,461	403.2 72,327	403.2	72,327

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 Interference to BLANK0000029684 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WNGH-TV	D4	DT	CP	CHATSWORTH, GA	BLANK0000029684	
Undesireds:	WTHC-LD	D3	LD	LIC	ATLANTA, GA	BLDTL20060511ABF	148.7 km
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	49755.7	5,717,695	46547.1	5,578,347	46547.1	5,578,347	46538.2 5,566,096 0.02 0.22
Undesired				Total IX	Unique IX, before	Unique IX, after	
WTHC-LD D3 LD LIC		8.9		12,251		8.9	12,251

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 Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTHC-LD	D3	LD	LIC	ATLANTA, GA	BLDTL20060511ABF	
Undesireds:	WWWB-LD	D3	LD	CP	CLARKRANGE, TN	BLANK0000010853	276.0 km

WUVM-LP	N4z	TX	LIC	ATLANTA, GA	BLTVL20030523AEX	42.7
Service area	Terrain-limited		IX-free		Percent IX	
4841.0	1,376,304	4796.3	1,369,275	4796.3	1,369,275	0.00 0.00

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Interference to proposal scenario 2  
4.49% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTHC-LD	D3	LD	LIC	ATLANTA, GA	BLDTL20060511ABF	
Undesireds:	WUVM-LP	D2z	LD	CP	ATLANTA, GA	BLANK0000052455	42.7 km
	WWWB-LD	D3	LD	CP	CLARKRANGE, TN	BLANK0000010853	276.0

Service area	Terrain-limited		IX-free		Percent IX	
4841.0	1,376,304	4796.3	1,369,275	4759.7	1,307,836	0.76 4.49
Undesired	Total IX		Unique IX		Prct Unique IX	
WUVM-LP D2z LD CP	36.6	61,439	36.6	61,439	0.76	4.49

The foregoing was prepared on behalf of The Atlanta Channel, Inc. by Clarence M. Beverage of *Communications Technologies, Inc.*, Marlton, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements he believes them to be true and correct.



Clarence M. Beverage  
for Communications Technologies, Inc.  
Marlton, New Jersey  
April 18, 2019

