

ENGINEERING EXHIBIT

Application for Class A Television Station Construction Permit

prepared for

Gray Television Licensee, LLC

WAGT-CD Augusta, GA

Facility ID 3369

Ch. 16 15 kW

Gray Television Licensee, LLC (“Gray”) is the licensee of Class A television station WAGT-CD, Channel 16, Facility ID 3369, Augusta, GA. WAGT-CD is licensed to operate on Channel 16 with 6.9 kW effective radiated power (“ERP”), directional (file# 0000001455). WAGT-CD presently operates on Channel 30 at an alternate site location pursuant to Special Temporary Authority (file# 0000007776, as extended). *Gray* proposes herein a minor modification of WAGT-CD to relocate the Channel 16 facility, increase the ERP and antenna height, and utilize a different directional antenna pattern. This application is intended to be filed during the temporary lift of the freeze on minor modification applications that expand the coverage contour.¹

As proposed herein, WAGT-CD will be relocated to the tower structure associated with FCC Antenna Structure Registration number 1059411, 19.1 km (11.9 miles) from the licensed WAGT-CD site. The proposed WAGT-CD facility will employ a new antenna system to be side-mounted on the tower and no change to the overall structure height is proposed.

The proposed WAGT-CD facility will operate with a directional antenna at 15 kW ERP using a “full service” out of channel emission mask. A plot of the directional antenna’s azimuthal and elevation patterns are supplied in Figures 1 and 2, respectively. The antenna will utilize 1.5 degrees electrical beamtilt and 0.8 degree mechanical beamtilt towards 160 degrees True. Figure 3 depicts the 51 dB μ coverage contour of the proposed facility as well as that of the

¹Public Notice “Media Bureau Temporarily Lifts the Freeze on the Filing of Minor Modification Applications that Expand the Contour of Full Power and Class A Television Stations from November 28 through December 7, 2017” DA 17-1086, released November 6, 2017.

licensed facility. The service area overlap demonstrates compliance with §73.3572 for a minor change.

Interference study per OET Bulletin 69² shows that the proposal complies with the FCC's interference protection requirements toward all post-auction digital television and Class A television stations, as well as existing and previously proposed television translator and low power television stations. 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.

The nearest FCC monitoring station is 272 km distant at Powder Springs, GA. This exceeds by a large margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with "quiet" zones specified in §73.1030(a) and (b). There are no authorized AM stations within 3 kilometers of the site. The site location is beyond the border areas requiring international coordination.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

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 25 percent antenna relative field in downward elevations (pattern data shows less than 25 percent relative field at angles 10 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 $0.24 \mu\text{W}/\text{cm}^2$, 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

²FCC 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 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. In order to allow the upload of elevation pattern data, a response of "Yes" is provided in the accompanying Form 2100 Antenna Technical Data section question regarding whether the elevation pattern varies for reasons other than the use of mechanical beamtilt.

§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. No increase in structure height is proposed.

List of Attachments

Figure 1	Antenna Azimuthal Pattern
Figure 2	Antenna Elevation Pattern
Figure 3	Proposed Coverage Contours
Table 1	OET Bulletin 69 Interference Study
Form 2100	Saved Version of Engineering Sections from FCC Form at Time of Upload

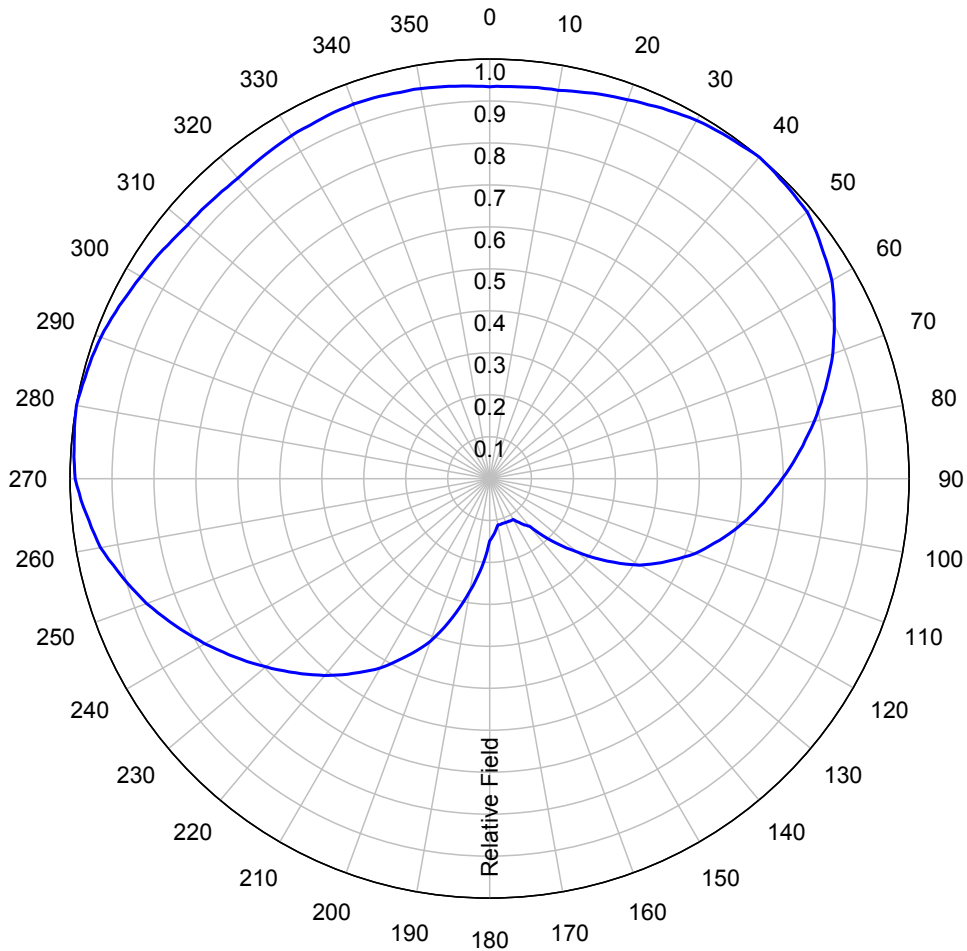
Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E.	November 27, 2017	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600

AZIMUTH PATTERN

Type: ALP-WR
 Directivity: Numeric 1.69 dBd 2.28
 Peak(s) at: _____

Channel: 16
 Location: _____
 Polarization: Horizontal
 Note: Pattern shape and directivity may vary with
 channel and mouting configuration.



Preliminary, subject to final design and review.

ELECTRONICS RESEARCH, INC. ERI



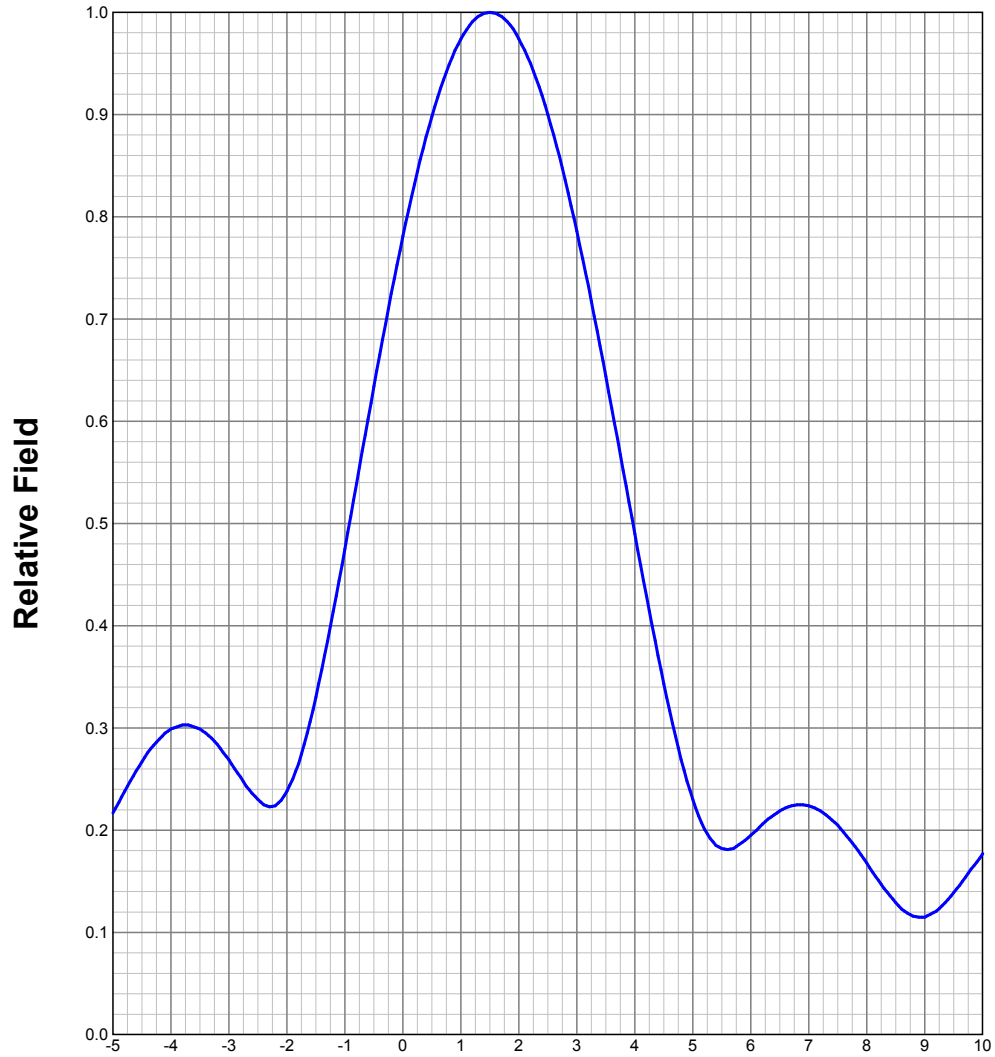
Figure 1
Antenna Azimuthal Pattern - Main Beam
Without Mechanical Beamtilt
WAGT-CD Augusta, GA
Facility ID 3369
Ch. 16 15 kW

prepared for
Gray Television Licensee, LLC

November, 2017

ELEVATION PATTERN

Type:	ALP12M6		Channel:	16
Directivity:	Numeric	dBd	Location:	
Main Lobe:	12.64	11.02	Beam Tilt:	-1.50
Horizontal:	7.71	8.87	Polarization:	Horizontal



Preliminary, subject to final design and review.

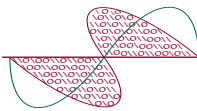
ELECTRONICS RESEARCH, INC. ERI



Figure 2
Antenna Elevation Pattern
Without Mechanical Beamtilt
WAGT-CD Augusta, GA
Facility ID 3369
Ch. 16 15 kW

prepared for
Gray Television Licensee, LLC

November, 2017



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

Figure 3
Coverage Contour Comparison
WAGT-CD Augusta, GA
Facility ID 3369
Ch. 16 15 kW

prepared for
Gray Television Licensee, LLC

November, 2017

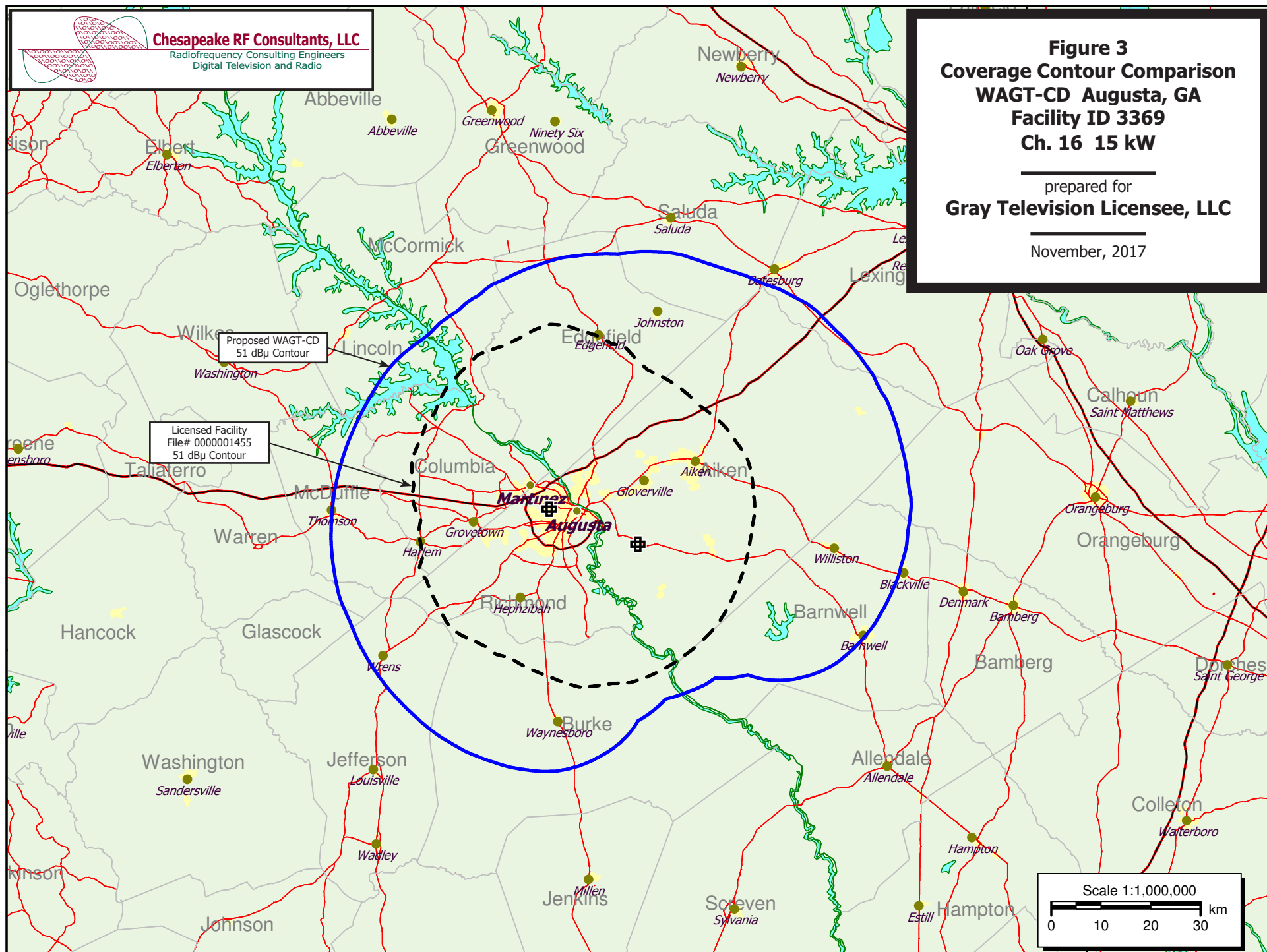
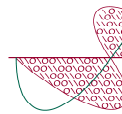


Table 1 WAGT-CD OET Bulletin 69 Interference Study
(page 1 of 5 – No IX check failures found, condensed to show first scenarios only)



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

tvstudy v2.2.4 (Z2Qqz3)
Database: localhost, Study: WAGT-CD 15kW ALP-WR 0.8MBT160, Model: Longley-Rice
Start: 2017.11.27 11:07:33

Study created: 2017.11.27 11:07:32

Study build station data: LMS TV 2017-11-26 LMSTV

Proposal: WAGT-CD D16 DC APP AUGUSTA, GA
File number: WAGT-CD 15kW ALP-WR 0.8MBT160
Facility ID: 3369
Station data: User record
Record ID: 264
Country: U.S.

Build options:
Protect LPTV records from Class A

Search options:
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	WDDZ-LD	D15	LD	CP	AUGUSTA, GA	BNPDTL20100128AGB	34.1 km
No	WGGD-LD	D15	LD	LIC	GAINESVILLE, GA	BLDTL20121213AIK	208.9
No	W21CK-D	D15	DC	APP	CHARLOTTE, NC	BLANK0000034509	217.7
No	WCYD-LD	D15	LD	CP	Charleston, SC	BLANK0000007874	172.6
Yes	WLTX	D15	DT	CP	COLUMBIA, SC	BLANK0000028035	125.6
No	WCJB-TV	D16	DT	LIC	GAINESVILLE, FL	BLCDT20071119AJB	433.8
No	NEW	D16	LD	APP	TALLAHASSEE, FL	BNPDTL20090825AAP	397.8
No	NEW	D16	LD	APP	TALLAHASSEE, FL	BNPDTL20090825BLQ	363.7
Yes	WDMA-CD	D16	DC	CP	MACON, GA	BLANK0000024851	181.5
Yes	WDMA-CD	D16	DC	APP	MACON, GA	BLANK0000034487	181.5
No	WPDW-LD	D16	LD	CP	PEARSON, GA	BDCCDTL20061026ADF	250.1
Yes	WPXA-TV	D16	DT	APP	ROME, GA	BLANK0000034338	277.7
Yes	WPXA-TV	D16	DT	CP	ROME, GA	BLANK0000027423	277.7
Yes	WSAV-TV	D16	DT	APP	SAVANNAH, GA	BLANK0000034780	158.6
Yes	WSAV-TV	D16	DT	CP	SAVANNAH, GA	BLANK0000027673	158.6
No	WCEE-LD	D16	LD	LIC	CHARLOTTE, NC	BLANK0000005163	230.6
No	WCEE-LD	N16-	TX	LIC	CHARLOTTE, NC	BLTT20041025ACE	230.6
No	WPXU-TV	D16	DT	CP	JACKSONVILLE, NC	BLANK0000026976	423.5
No	WXII-TV	D16	DT	APP	WINSTON-SALEM, NC	BLANK0000034697	355.7
No	WXII-TV	D16	DT	CP	WINSTON-SALEM, NC	BLANK0000024623	355.7
Yes	WJPM-TV	D16	DT	CP	FLORENCE, SC	BLANK0000025028	216.7
No	WMKH-LD	D16	LD	LIC	HILTON HEAD ISLAND, SC	BLDTL20121019ADL	156.8
No	WAPK-CD	D16	DC	APP	BRISTOL VA/KINGSPORT, TN	BLANK0000034342	336.9
No	WAPK-CD	D16	DC	CP	BRISTOL VA/KINGSPORT, TN	BLANK0000026121	336.9
No	WUVG-DT	D17	LD	LIC	ATHENS, GA	BLCDT20091210ABP	202.5
No	W17DW-D	D17	LD	CP	SOPERTON, GA	BNPDTL20100510AHD	122.7
No	WTAT-TV	D17	DT	APP	CHARLESTON, SC	BLANK0000034503	206.5
No	WTAT-TV	D17	DT	CP	CHARLESTON, SC	BLANK0000027762	206.5
No	WHNS	D17	DT	CP	GREENVILLE, SC	BLANK0000024830	211.5

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

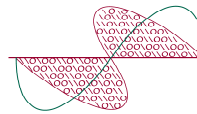
Channel: D16
Mask: Full Service
Latitude: 33 24 37.00 N (NAD83)
Longitude: 81 50 36.00 W
Height AMSL: 480.4 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: ALP-WR 340.0 deg
Elev Pattn: ALP12 EL pat 1.5degET
Tilts: elec 1.50, mech 0.80 @ 160.0 deg

48.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	13.0 kW	377.1 m	61.1 km
45.0	13.6	367.0	60.9
90.0	5.24	381.8	56.4
135.0	0.353	392.7	41.2
180.0	0.175	433.0	38.1
225.0	4.56	442.4	58.1
270.0	13.4	437.8	64.5
315.0	13.0	394.0	62.0

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 403 m

Table 1 WAGT-CD OET Bulletin 69 Interference Study
(page 2 of 5 – No IX check failures found, condensed to show first scenarios only)



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

Distance to Canadian border: 920.1 km

Distance to Mexican border: 1671.6 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 281.5 degrees Distance: 271.2 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 296.5 degrees Distance: 2203.5 km

No land mobile station failures found

Proposal is not within the Offshore Radio Service protected area

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%

Interference to BNPDTL20100128AGB CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WDDZ-LD	D15	LD	CP	AUGUSTA, GA	BNPDTL20100128AGB	
Undesireds:	WAGT-CD	D16	DC	BL	AUGUSTA, GA	DTVBL3369	23.1 km
	WAGT-CD	D16	DC	APP	AUGUSTA, GA	WAGT-CD 15kW ALP-WR 0.	34.1
	W21CK-D	D15	DC	CP	CHARLOTTE, NC	BLANK0000027832	242.0
	W15CW-D	D15	LD	CP	FRANKLIN, NC	BDISDTT20090824ACL	243.0
	WCYD-LD	D15	LD	LIC	Charleston, SC	BLANK0000006413	227.9
	WLTX	D15	DT	CP	COLUMBIA, SC	BLANK0000028035	158.2

	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	1681.3	371,134	1659.5	370,505	1237.8 227,625	1578.1 355,087	-27.49 -56.00
Undesired				Total IX	Unique IX, before	Unique IX, after	
WAGT-CD D16 DC BL		375.0		135,581	350.2 128,277		
WAGT-CD D16 DC APP		22.8		1,601		9.9 815	
WLTX D15 DT CP		71.5		14,603	46.7 7,299	58.6 13,817	

Interference to BLANK0000028035 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WLTX	D15	DT	CP	COLUMBIA, SC	BLANK0000028035	
Undesireds:	WAGT-CD	D16	DC	BL	AUGUSTA, GA	DTVBL3369	136.3 km
	WAGT-CD	D16	DC	APP	AUGUSTA, GA	WAGT-CD 15kW ALP-WR 0.	125.6
	WHKY-TV	D14	DD	CP	HICKORY, NC	BLANK0000024614	189.0
	W21CK-D	D15	DC	CP	CHARLOTTE, NC	BLANK0000027832	122.9
	WRAZ	D15	DT	CP	RALEIGH, NC	BLANK0000025194	268.9
	WTNZ	D15	DT	APP	KNOXVILLE, TN	BLANK0000034160	358.5
	WJPM-TV	D16	DT	CP	FLORENCE, SC	BLANK0000025028	96.0

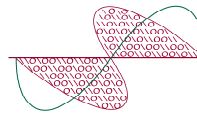
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	35141.6	1,598,115	34994.9	1,593,326	33728.1 1,514,190	33650.7 1,511,407	0.23 0.18
Undesired				Total IX	Unique IX, before	Unique IX, after	
WAGT-CD D16 DC BL		61.5		12,656	61.5 12,656		
WAGT-CD D16 DC APP		138.9		15,439		138.9 15,439	
W21CK-D D15 DC CP		281.4		13,013	228.3 9,456	228.3 9,456	
WRAZ D15 DT CP		667.9		14,962	547.5 10,702	547.5 10,702	
WJPM-TV D16 DT CP		376.5		42,765	309.1 42,062	309.1 42,062	

Interference to BLANK0000024851 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WDMA-CD	D16	DC	CP	MACON, GA	BLANK0000024851	
Undesireds:	WAGT-CD	D16	DC	BL	AUGUSTA, GA	DTVBL3369	167.7 km
	WAGT-CD	D16	DC	APP	AUGUSTA, GA	WAGT-CD 15kW ALP-WR 0.	181.5
	WJHG-TV	D16	DT	CP	PANAMA CITY, FL	BLANK0000025385	321.0
	WPXA-TV	D16	DT	APP	ROME, GA	BLANK0000034338	187.0
	WSAV-TV	D16	DT	APP	SAVANNAH, GA	BLANK0000034780	239.0
	WLGA	D17	DD	APP	OPELIKA, AL	BLANK0000030376	106.0

	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX

Table 1 WAGT-CD OET Bulletin 69 Interference Study
(page 3 of 5 – No IX check failures found, condensed to show first scenarios only)



6516.3	418,111	6459.4	413,302	6223.3	405,791	6222.3	405,776	0.02	0.00
Undesired			Total IX	Unique IX, before		Unique IX, after			
WAGT-CD D16 DC BL		0.0	0	0.0		0			
WAGT-CD D16 DC APP		3.0	15			1.0		15	
WJHG-TV D16 DT CP		2.0	0	0.0		0.0		0	
WPXA-TV D16 DT APP	213.1		6,791	160.1		3,118		160.1	
WSAV-TV D16 DT APP	76.0		4,393	23.0		720		23.0	
								3,118	
								720	

Interference to BLANK0000034487 APP scenario 1

Desired:	Call WDMA-CD	Chan D16	Svc DC	Status APP	City, State MACON, GA	File Number BLANK0000034487	Distance			
Undesireds:	WAGT-CD	D16	DC	BL	AUGUSTA, GA	DTVBL3369	167.7 km			
	WAGT-CD	D16	DC	APP	AUGUSTA, GA	WAGT-CD 15kW ALP-WR 0.	181.5			
	WJHG-TV	D16	DT	CP	PANAMA CITY, FL	BLANK0000025385	321.0			
	WPXA-TV	D16	DT	APP	ROME, GA	BLANK0000034338	187.0			
	WSAV-TV	D16	DT	APP	SAVANNAH, GA	BLANK0000034780	239.0			
	WLGA	D17	DD	APP	OPELIKA, AL	BLANK0000030376	106.0			
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX		
6715.5	429,812	6656.6		425,738	6424.6	418,689	6423.6	418,674	0.02	0.00

Undesired			Total IX	Unique IX, before		Unique IX, after	
WAGT-CD D16 DC BL		0.0	0	0.0		0	
WAGT-CD D16 DC APP		4.0	15			1.0	
WJHG-TV D16 DT CP		1.0	0	0.0		0.0	
WPXA-TV D16 DT APP	207.1		6,827	154.1		2,800	
WSAV-TV D16 DT APP	78.0		4,249	25.0		222	
						25.0	
						2,800	
						222	

Interference to BLANK0000034338 APP scenario 1

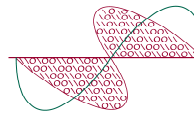
Desired:	Call WPXA-TV	Chan D16	Svc DT	Status APP	City, State ROME, GA	File Number BLANK0000034338	Distance		
Undesireds:	WAGT-CD	D16	DC	BL	AUGUSTA, GA	DTVBL3369	258.6 km		
	WAGT-CD	D16	DC	APP	AUGUSTA, GA	WAGT-CD 15kW ALP-WR 0.	277.7		
	WAFF	D15	DT	CP	HUNTSVILLE, AL	BLANK0000025101	178.4		
	WTNZ	D15	DT	APP	KNOXVILLE, TN	BLANK0000034160	198.5		
	W47EI-D	D16	DC	CP	BIRMINGHAM, AL	BLANK0000027943	219.6		
	WDMA-CD	D16	DC	CP	MACON, GA	BLANK0000024851	187.0		
	WSAV-TV	D16	DT	APP	SAVANNAH, GA	BLANK0000034780	399.8		
	WLOV-TV	D16	DT	LIC	WEST POINT, MS	BLCDT20070405ABC	412.8		
	WAPK-CD	D16	DC	APP	BRISTOL VA/KINGSPORT, TN	BLANK0000034342	327.4		
	WHTN	D16	DT	CP	MURFREESBORO, TN	BLANK0000025312	254.7		
	WAAY-TV	D17	DT	CP	HUNTSVILLE, AL	BLANK0000027632	178.9		
	WLGA	D17	DD	APP	OPELIKA, AL	BLANK0000030376	137.0		
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
41232.5	6,586,413	38007.6		6,460,879	36538.4	6,356,825	36525.4	6,356,745	0.04 0.00

Undesired			Total IX	Unique IX, before		Unique IX, after	
WAGT-CD D16 DC BL		1.0	0	0.0		0	
WAGT-CD D16 DC APP		26.0	706			13.0	
WAFF D15 DT CP		79.2	2,352	1.0		1.0	
WTNZ D15 DT APP		15.9	38	9.0		9.0	
W47EI-D D16 DC CP		51.7	1,133	38.7		565	
WDMA-CD D16 DC CP	333.6		37,629	296.9		34,617	
WSAV-TV D16 DT APP	38.6		809	14.8		430	
WLOV-TV D16 DT LIC	2.0		0	1.0		0	
WAPK-CD D16 DC APP	3.0		0	1.0		0	
WHTN D16 DT CP	646.2		23,047	334.1		11,733	
WAAY-TV D17 DT CP	440.9		16,583	145.8		5,291	
WLGA D17 DD APP	283.0		39,480	272.0		36,847	
						272.0	
						36,847	

Interference to BLANK0000027423 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WPXA-TV	D16	DT	CP	ROME, GA	BLANK0000027423	
Undesireds:	WAGT-CD	D16	DC	BL	AUGUSTA, GA	DTVBL3369	258.6 km
	WAGT-CD	D16	DC	APP	AUGUSTA, GA	WAGT-CD 15kW ALP-WR 0.	277.7
	WAFF	D15	DT	CP	HUNTSVILLE, AL	BLANK0000025101	178.4
	WTNZ	D15	DT	APP	KNOXVILLE, TN	BLANK0000034160	198.5
	W47EI-D	D16	DC	CP	BIRMINGHAM, AL	BLANK0000027943	219.6
	WDMA-CD	D16	DC	CP	MACON, GA	BLANK0000024851	187.0
	WSAV-TV	D16	DT	APP	SAVANNAH, GA	BLANK0000034780	399.8
	WLOV-TV	D16	DT	LIC	WEST POINT, MS	BLCDT20070405ABC	412.8
	WAPK-CD	D16	DC	APP	BRISTOL VA/KINGSPORT, TN	BLANK0000034342	327.4
	WHTN	D16	DT	CP	MURFREESBORO, TN	BLANK0000025312	254.7

Table 1 WAGT-CD OET Bulletin 69 Interference Study
(page 4 of 5 – No IX check failures found, condensed to show first scenarios only)



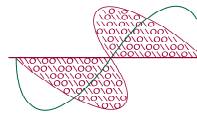
WAAY-TV	D17	DT	CP	HUNTSVILLE, AL	BLANK0000027632	178.9
WLGA	D17	DD	APP	OPELIKA, AL	BLANK0000030376	137.0
Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
41070.0	6,577,038	37847.0	6,450,614	36415.8	6,346,115	36402.8 6,346,035 0.04 0.00
Undesired	Total IX		Unique IX, before		Unique IX, after	
WAGT-CD D16 DC BL	1.0	0	0.0	0		
WAGT-CD D16 DC APP	28.0	1,578			13.0	80
WAFB D15 DT CP	73.2	2,093	1.0	0	1.0	0
WTNZ D15 DT APP	15.9	38	9.0	0	9.0	0
W47EI-D D16 DC CP	47.6	830	35.7	565	35.7	565
WDMA-CD D16 DC CP	321.7	36,580	287.0	33,568	279.0	32,317
WSAV-TV D16 DT APP	36.6	716	13.9	337	11.9	161
WLOV-TV D16 DT LIC	2.0	0	1.0	0	1.0	0
WAPK-CD D16 DC APP	3.0	0	1.0	0	1.0	0
WHTN D16 DT CP	633.2	22,606	331.1	11,875	331.1	11,875
WAAY-TV D17 DT CP	422.9	15,569	138.8	4,948	138.8	4,948
WLGA D17 DD APP	281.0	41,939	271.0	39,306	271.0	39,306

Interference to BLANK0000034780 APP scenario 1						
Desired:	Call	Chan	Svc	Status	City, State	File Number
	WSAV-TV	D16	DT	APP	SAVANNAH, GA	BLANK0000034780
Undesireds:	WAGT-CD	D16	DC	BL	AUGUSTA, GA	DTVBL3369
	WAGT-CD	D16	DC	APP	AUGUSTA, GA	WAGT-CD 15kW ALP-WR 0.
	WCJB-TV	D16	DT	LIC	GAINESVILLE, FL	BLCDT20071119AJB
	WDMA-CD	D16	DC	CP	MACON, GA	BLANK0000024851
	WPXA-TV	D16	DT	APP	ROME, GA	BLANK0000034338
	WJPM-TV	D16	DT	CP	FLORENCE, SC	BLANK0000025028
	WTAT-TV	D17	DT	APP	CHARLESTON, SC	BLANK0000034503
Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
41507.3	1,015,095	41482.3	1,015,065	40712.4	1,007,457	39989.3 1,002,524 1.78 0.49
Undesired	Total IX		Unique IX, before		Unique IX, after	
WAGT-CD D16 DC BL	240.7	1,965	223.7	1,909		
WAGT-CD D16 DC APP	970.8	6,913			946.8	6,842
WCJB-TV D16 DT LIC	4.0	0	1.0	0	1.0	0
WDMA-CD D16 DC CP	11.0	39	1.0	0	0.0	0
WPXA-TV D16 DT APP	20.0	71	6.0	2	1.0	0
WJPM-TV D16 DT CP	6.0	0	1.0	0	1.0	0
WTAT-TV D17 DT APP	515.1	5,628	515.1	5,628	515.1	5,628

Interference to BLANK0000027673 CP scenario 1						
Desired:	Call	Chan	Svc	Status	City, State	File Number
	WSAV-TV	D16	DT	CP	SAVANNAH, GA	BLANK0000027673
Undesireds:	WAGT-CD	D16	DC	BL	AUGUSTA, GA	DTVBL3369
	WAGT-CD	D16	DC	APP	AUGUSTA, GA	WAGT-CD 15kW ALP-WR 0.
	WCJB-TV	D16	DT	LIC	GAINESVILLE, FL	BLCDT20071119AJB
	WDMA-CD	D16	DC	CP	MACON, GA	BLANK0000024851
	WPXA-TV	D16	DT	APP	ROME, GA	BLANK0000034338
	WTAT-TV	D17	DT	APP	CHARLESTON, SC	BLANK0000034503
Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
38579.5	987,462	38560.4	987,406	38132.8	983,665	37596.3 979,106 1.41 0.46
Undesired	Total IX		Unique IX, before		Unique IX, after	
WAGT-CD D16 DC BL	115.9	1,156	101.9	1,119		
WAGT-CD D16 DC APP	656.4	5,754			638.4	5,678
WCJB-TV D16 DT LIC	2.0	0	1.0	0	1.0	0
WDMA-CD D16 DC CP	9.0	20	3.0	0	2.0	0
WPXA-TV D16 DT APP	16.0	76	1.0	28	0.0	0
WTAT-TV D17 DT APP	303.7	2,546	303.7	2,546	303.7	2,546

Interference to BLANK0000025028 CP scenario 1						
Desired:	Call	Chan	Svc	Status	City, State	File Number
	WJPM-TV	D16	DT	CP	FLORENCE, SC	BLANK0000025028
Undesireds:	WAGT-CD	D16	DC	BL	AUGUSTA, GA	DTVBL3369
	WAGT-CD	D16	DC	APP	AUGUSTA, GA	WAGT-CD 15kW ALP-WR 0.
	W21CK-D	D15	DC	CP	CHARLOTTE, NC	BLANK0000027832
	WLTX	D15	DT	CP	COLUMBIA, SC	BLANK0000028035
	WSAV-TV	D16	DT	APP	SAVANNAH, GA	BLANK0000034780
	WPXU-TV	D16	DT	CP	JACKSONVILLE, NC	BLANK0000026976
	WXII-TV	D16	DT	APP	WINSTON-SALEM, NC	BLANK0000034697
	WAPK-CD	D16	DC	APP	BRISTOL VA/KINGSPORT, TN	BLANK0000034342

Table 1 WAGT-CD OET Bulletin 69 Interference Study
(page 5 of 5 – No IX check failures found, condensed to show first scenarios only)



WTAT-TV	D17	DT	APP	CHARLESTON, SC	BLANK0000034503	149.0
Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
17234.7	622,849	17212.6	622,647	16808.2 606,973	16808.2 606,973	0.00 0.00
Undesired		Total IX		Unique IX, before	Unique IX, after	
WAGT-CD D16 DC BL	2.0		86	0.0 0		
WAGT-CD D16 DC APP	10.0		316		0.0 0	
WLTX D15 DT CP	159.3		4,248	65.1 2,121	65.1 2,121	
WSAV-TV D16 DT APP	57.1		1,269	1.0 0	1.0 0	
WPXU-TV D16 DT CP	39.1		1,719	0.0 0	0.0 0	
WXII-TV D16 DT APP	290.7		12,878	201.5 10,149	201.5 10,149	
WTAT-TV D17 DT APP	36.6		526	36.6 526	36.6 526	

Interference to proposal scenario 1
**MX: 0.66% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WAGT-CD	D16	DC	APP	AUGUSTA, GA	WAGT-CD 15kW ALP-WR 0.	
Undesireds:	WLTX	D15	DT	CP	COLUMBIA, SC	BLANK0000028035	125.6 km
	WDMA-CD	D16	DC	CP	MACON, GA	BLANK0000024851	181.5
	WPXA-TV	D16	DT	APP	ROME, GA	BLANK0000034338	277.7
	WSAV-TV	D16	DT	APP	SAVANNAH, GA	BLANK0000034780	158.6
	WXII-TV	D16	DT	APP	WINSTON-SALEM, NC	BLANK0000034697	355.7
	WAPK-CD	D16	DC	APP	BRISTOL VA/KINGSPORT, TN	BLANK0000034342	336.9
Service area		Terrain-limited		IX-free	Percent IX		
9966.6	588,965	9955.7	588,936	9483.4 585,071	4.74 0.66		
Undesired		Total IX		Unique IX	Prcnt Unique IX		
WLTX D15 DT CP	2.0		25	2.0 25	0.02 0.00		
WPXA-TV D16 DT APP	8.9		221	5.0 115	0.05 0.02		
WSAV-TV D16 DT APP	465.3		3,725	461.4 3,619	4.63 0.61		

**Channel and
Facility
Information**

Section	Question	Response
Proposed Community of License	Facility ID	3369
	State	Georgia
	City	AUGUSTA
	DCA Channel	16

**Antenna Location
Data**

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1059411
Coordinates (NAD83)	Latitude	33° 24' 37.0" N+
	Longitude	081° 50' 36.0" W-
	Structure Type	TOWER-A free standing or guyed struct
	Overall Structure Height	459.0 meters
	Support Structure Height	434.3 meters
	Ground Elevation (AMSL)	114.6 meters
Antenna Data	Height of Radiation Center Above Ground Level	365.8 meters
	Height of Radiation Center Above Mean Sea Level	480.4 meters
	Effective Radiated Power	15 kW

Antenna
Technical Data

Section	Question	Response
Antenna Type	Antenna Type	Directional Custom
	Do you have an Antenna ID?	No
	Antenna ID	
Antenna Manufacturer and Model	Manufacturer:	ERI
	Model	ALP12M6-HSWR-16
	Rotation	340 degrees
	Electrical Beam Tilt	1.5
	Mechanical Beam Tilt	0.8
	toward azimuth	160
	Polarization	Horizontal
Elevation Radiation Pattern	Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?	Yes
	Uploaded file for elevation antenna (or radiation) pattern data	ALP12 EL pat 1.5degET.xml
	Out-of-Channel Emission Mask:	Full Service

Directional Antenna Relative Field Values (Pre-rotated Pattern)

Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)
0	0.950	90	0.870	180	0.111	270	0.870
10	0.944	100	0.785	190	0.112	280	0.942
20	0.934	110	0.697	200	0.148	290	0.988
30	0.940	120	0.612	210	0.272	300	1.000
40	0.961	130	0.521	220	0.412	310	0.986
50	0.986	140	0.412	230	0.521	320	0.961
60	1.000	150	0.272	240	0.612	330	0.940
70	0.988	160	0.148	250	0.697	340	0.934
80	0.942	170	0.112	260	0.785	350	0.944

Additional Azimuths

Degree	V _A
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