

ENGINEERING EXHIBIT

Digital Low Power Television Station Application for Minor Modification of Licensed Facility prepared for

Gray Television Licensee, LLC
W24FC-D Augusta, GA
Facility ID 185708
Ch. 24 15 kW Directional

Gray Television Licensee, LLC (“Gray”) is the licensee of digital Low Power Television station W24FC-D, Channel 24, Facility ID 185708, Augusta GA. W24FC-D is licensed to operate at 0.2 kW effective radiated power (“ERP”) with a directional antenna (file# 0000194531). *Gray* herein seeks a minor modification Construction Permit to relocate W24FC-D, increase ERP, increase antenna height, and utilize a different directional antenna pattern.

The proposed facility will employ a new antenna to be side-mounted on the tower structure associated with FCC Antenna Structure Registration number 1013475, located 36.3 km (22.6 miles) from the licensed site. No change to the overall structure height is proposed.

The proposed antenna is a Dielectric model DLP-8B having horizontal polarization. The proposed ERP is 15 kW using a “full service” out of channel emission mask. A plot of the directional antenna’s azimuthal pattern is supplied in Figure 1.

Figure 2 depicts the coverage contour of the proposed facility as well as that of the licensed facility, demonstrating compliance with §73.3572 for a minor change. Since the proposed 51 dBμ contour encompasses that of the licensed facility, no service loss area will be created. Considerable service improvement will result as the population within the 51 dBμ contour increases to 83,673 persons (2010 census), which is a 24-fold increase beyond the 3,470 persons within the licensed W24FC-D facility’s 51 dBμ contour.

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, and Class A 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.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The proposed facility 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 25 percent antenna relative field in downward elevations (pattern data shows 25 percent or less relative field at angles 10 to 90 degrees below the antenna), the calculated power density attributable to the proposed facility at locations near the transmitter site at a height of two meters above ground level is $3.9 \mu\text{W}/\text{cm}^2$, which is 1.1 percent of the general population / uncontrolled maximum permissible exposure limit. This is 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. No increase in structure height is proposed.

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 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.

Engineering Exhibit
Gray Television Licensee, LLC (W24FC-D)
(page 3 of 3)

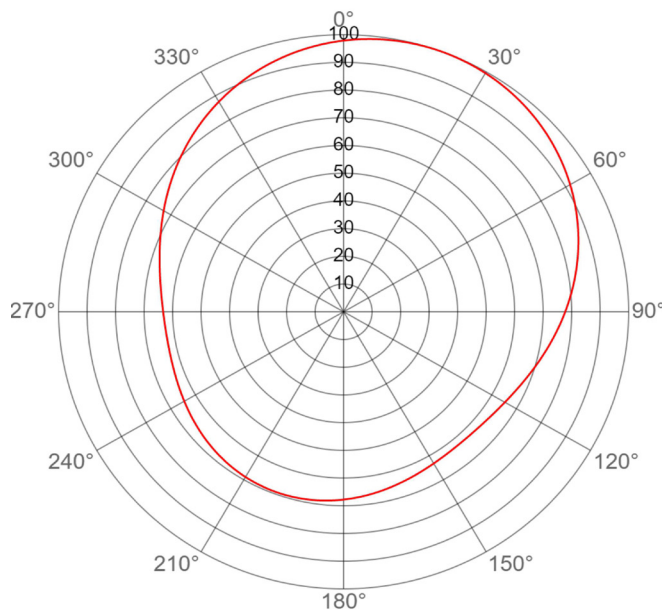


List of Attachments

Figure 1	Antenna Azimuthal Pattern
Figure 2	Coverage Contour Comparison
Table 1	TVStudy Analysis of Proposal
Form 2100	Saved Version of Engineering Sections of FCC Form at Time of Upload

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E.	November 3, 2022	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600



Horizontal Polarization AZIMUTH PATTERN

Exhibit No.

Date **3 Nov 2022**

Call Letters **W24FC-D**

Channel **24**

Antenna Type **B**

Location **Augusta GA**

Customer **Gray TV**

Gain **1.7 (2.30 dB)**

Calculated

Drawing # **b-pattern**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.979	36	0.986	72	0.866	108	0.694	144	0.628	180	0.678	216	0.683	252	0.630	288	0.679	324	0.847
1	0.981	37	0.985	73	0.861	109	0.690	145	0.628	181	0.679	217	0.682	253	0.629	289	0.682	325	0.852
2	0.983	38	0.983	74	0.857	110	0.686	146	0.629	182	0.680	218	0.680	254	0.629	290	0.686	326	0.857
3	0.985	39	0.981	75	0.852	111	0.682	147	0.629	183	0.682	219	0.679	255	0.628	291	0.690	327	0.861
4	0.986	40	0.979	76	0.847	112	0.679	148	0.630	184	0.683	220	0.678	256	0.628	292	0.694	328	0.866
5	0.988	41	0.977	77	0.842	113	0.675	149	0.631	185	0.684	221	0.676	257	0.627	293	0.698	329	0.871
6	0.990	42	0.974	78	0.837	114	0.672	150	0.632	186	0.685	222	0.675	258	0.627	294	0.702	330	0.875
7	0.991	43	0.972	79	0.833	115	0.668	151	0.633	187	0.686	223	0.673	259	0.627	295	0.707	331	0.880
8	0.992	44	0.970	80	0.828	116	0.665	152	0.634	188	0.687	224	0.672	260	0.627	296	0.711	332	0.884
9	0.993	45	0.967	81	0.823	117	0.662	153	0.635	189	0.688	225	0.670	261	0.627	297	0.715	333	0.889
10	0.995	46	0.964	82	0.818	118	0.659	154	0.637	190	0.689	226	0.669	262	0.627	298	0.720	334	0.893
11	0.996	47	0.962	83	0.813	119	0.656	155	0.638	191	0.689	227	0.667	263	0.627	299	0.724	335	0.897
12	0.997	48	0.959	84	0.808	120	0.653	156	0.639	192	0.690	228	0.666	264	0.628	300	0.729	336	0.902
13	0.997	49	0.956	85	0.803	121	0.651	157	0.641	193	0.690	229	0.664	265	0.628	301	0.734	337	0.906
14	0.998	50	0.953	86	0.798	122	0.648	158	0.642	194	0.691	230	0.662	266	0.629	302	0.738	338	0.910
15	0.999	51	0.950	87	0.793	123	0.646	159	0.644	195	0.691	231	0.661	267	0.630	303	0.743	339	0.914
16	0.999	52	0.946	88	0.788	124	0.643	160	0.646	196	0.692	232	0.659	268	0.631	304	0.748	340	0.918
17	0.999	53	0.943	89	0.783	125	0.641	161	0.647	197	0.692	233	0.657	269	0.632	305	0.753	341	0.922
18	1.000	54	0.940	90	0.778	126	0.639	162	0.649	198	0.692	234	0.655	270	0.633	306	0.758	342	0.925
19	1.000	55	0.936	91	0.773	127	0.638	163	0.650	199	0.692	235	0.654	271	0.635	307	0.763	343	0.929
20	1.000	56	0.933	92	0.768	128	0.636	164	0.652	200	0.692	236	0.652	272	0.636	308	0.768	344	0.933
21	1.000	57	0.929	93	0.763	129	0.635	165	0.654	201	0.692	237	0.650	273	0.638	309	0.773	345	0.936
22	1.000	58	0.925	94	0.758	130	0.633	166	0.655	202	0.692	238	0.649	274	0.639	310	0.778	346	0.940
23	0.999	59	0.922	95	0.753	131	0.632	167	0.657	203	0.692	239	0.647	275	0.641	311	0.783	347	0.943
24	0.999	60	0.918	96	0.748	132	0.631	168	0.659	204	0.692	240	0.646	276	0.643	312	0.788	348	0.946
25	0.999	61	0.914	97	0.743	133	0.630	169	0.661	205	0.691	241	0.644	277	0.646	313	0.793	349	0.950
26	0.998	62	0.910	98	0.738	134	0.629	170	0.662	206	0.691	242	0.642	278	0.648	314	0.798	350	0.953
27	0.997	63	0.906	99	0.734	135	0.628	171	0.664	207	0.690	243	0.641	279	0.651	315	0.803	351	0.956
28	0.997	64	0.902	100	0.729	136	0.628	172	0.666	208	0.690	244	0.639	280	0.653	316	0.808	352	0.959
29	0.996	65	0.897	101	0.724	137	0.627	173	0.667	209	0.689	245	0.638	281	0.656	317	0.813	353	0.962
30	0.995	66	0.893	102	0.720	138	0.627	174	0.669	210	0.689	246	0.637	282	0.659	318	0.818	354	0.964
31	0.993	67	0.889	103	0.715	139	0.627	175	0.670	211	0.688	247	0.635	283	0.662	319	0.823	355	0.967
32	0.992	68	0.884	104	0.711	140	0.627	176	0.672	212	0.687	248	0.634	284	0.665	320	0.828	356	0.970
33	0.991	69	0.880	105	0.707	141	0.627	177	0.673	213	0.686	249	0.633	285	0.668	321	0.833	357	0.972
34	0.990	70	0.875	106	0.702	142	0.627	178	0.675	214	0.685	250	0.632	286	0.672	322	0.837	358	0.974
35	0.988	71	0.871	107	0.698	143	0.627	179	0.676	215	0.684	251	0.631	287	0.675	323	0.842	359	0.977

Figure 1
Antenna Azimuthal Pattern
W24FC-D Augusta, GA
Facility ID 185708
Ch. 24 15 kW Directional

prepared for
Gray Television Licensee, LLC

November, 2022

Figure 2
Coverage Contour Comparison
W24FC-D Augusta, GA
Facility ID 185708
Ch. 24 15 kW Directional

prepared for
Gray Television Licensee, LLC

November, 2022

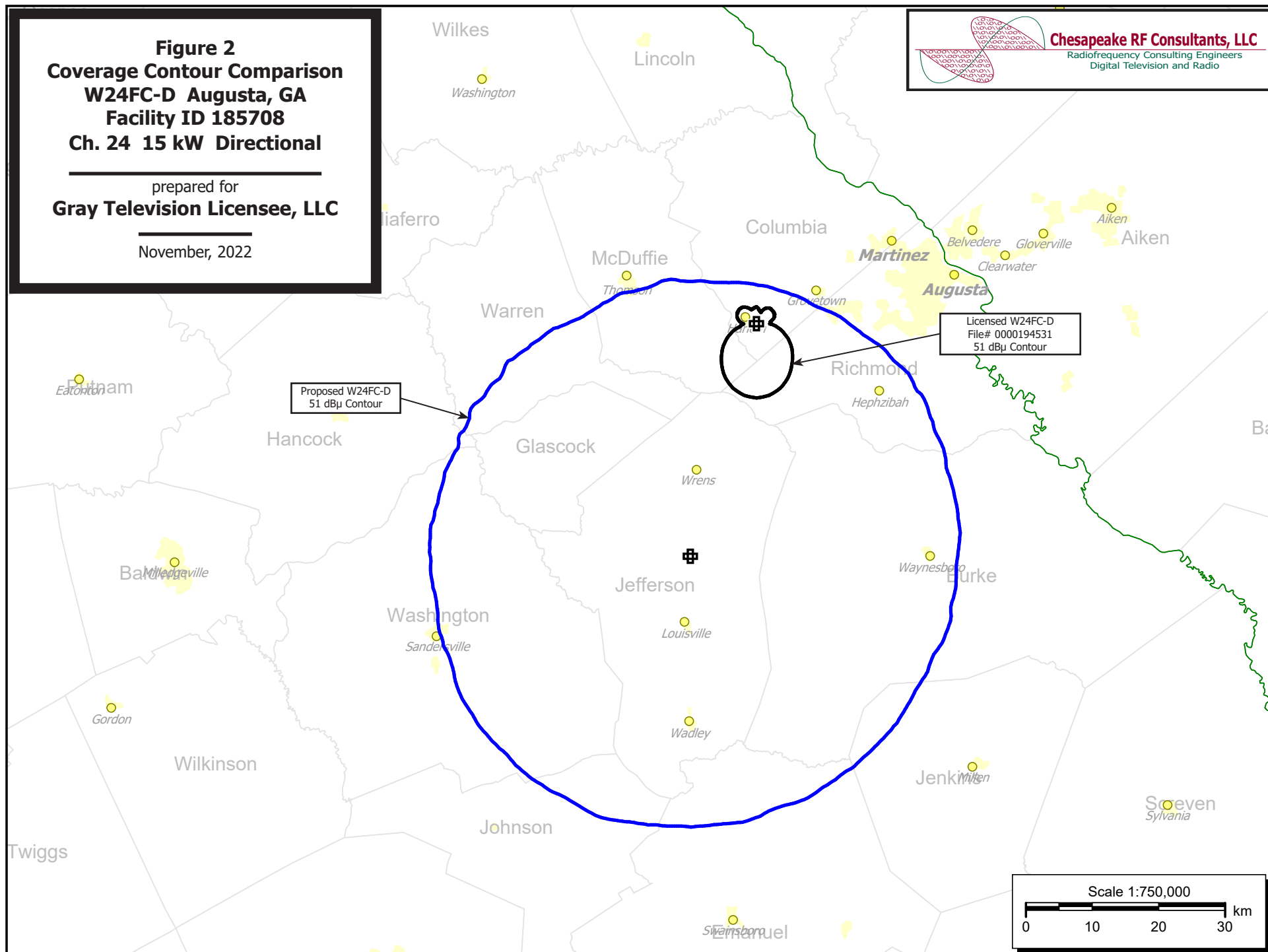


Table 1 W24FC-D TVStudy Analysis of Proposal (page 1 of 4)



tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: W24FC-D 1013475 DLP-8B, Model: Longley-Rice
Start: 2022.11.03 11:07:46

Study created: 2022.11.03 11:07:46

Study build station data: LMS TV 2022-11-03

Proposal: W24FC-D D24 LD APP AUGUSTA, GA
File number: W24FC-D 1013475 DLP-8B
Facility ID: 185708
Station data: User record
Record ID: 4744
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	WZVC-LD	D23	LD	LIC	ATHENS, GA	BLANK0000178758	112.3 km
No	WZVC-LD	D23	LD	CP	ATHENS, GA	BLANK0000185000	117.2
No	WAAU-LD	D23	LD	LIC	AUGUSTA, GA	BLDTL20120522AFJ	56.2
No	WKTG-CD	D23	DC	LIC	NORCROSS, GA	BLANK0000081811	190.4
No	WPGA-TV	D23	DT	LIC	PERRY, GA	BLANK0000116580	114.2
No	WTOG-TV	D23	DT	CP	SAVANNAH, GA	BLANK0000149921	151.5
No	WBTG	D23	DT	LIC	CHARLOTTE, NC	BLANK0000147971	276.3
No	WAZS-LD	D23	LD	CP	NORTH CHARLESTON, SC	BLANK0000054749	215.0
No	WTBM-CD	D24	DC	CP	BIRMINGHAM, AL	BLANK0000198234	411.0
No	WHIQ	D24	DT	LIC	HUNTSVILLE, AL	BLANK0000004828	422.4
No	WTLF	D24	DT	CP	TALLAHASSEE, FL	BLANK0000035775	306.1
No	WTLF	D24	DT	LIC	TALLAHASSEE, FL	BLCDT20030303ABF	345.7
Yes	WPXC-TV	D24	DT	LIC	BRUNSWICK, GA	BLCDT20110426AAQ	259.1
No	WXTX	D24	DT	LIC	COLUMBUS, GA	BLANK0000064021	241.8
No	WKSY-LD	D24	LD	CP	SUMMERVILLE/TRION, GA	BLANK0000194960	271.3
No	WVND-LD	D24	LD	LIC	SUWANEE, GA	BLANK0000179560	189.5
Yes	WGTA	D24	DT	LIC	TOCCOA, GA	BLANK0000001315	191.1
Yes	WCNC-TV	D24	DT	LIC	CHARLOTTE, NC	BLANK0000147158	275.2
No	W24CP-D	D24	LD	LIC	DURHAM, NC	BLANK0000004266	428.6
No	WWAY	D24	DT	LIC	WILMINGTON, NC	BLANK0000100423	406.9
No	WITV	D24	DT	LIC	CHARLESTON, SC	BLANK0000118279	252.6
No	W24EX-D	D24	LD	CP	FLORENCE, SC	BLANK0000199600	280.2
No	WDDA-LD	D24	LD	LIC	CHATTANOOGA, TN	BLANK0000185266	352.3
No	WETP-TV	D24	DT	LIC	SNEEDVILLE, TN	BLANK0000120200	372.6
No	WATL	D25	DT	LIC	ATLANTA, GA	BLCDT20020716AAH	196.6
No	WQIX-LD	D25	LD	LIC	VIDALIA, GA	BLANK0000116268	148.2
No	WJZY	D25	DT	LIC	BELMONT, NC	BLANK0000146872	277.3
No	WCIV	D25	DT	LIC	CHARLESTON, SC	BLANK0000184940	252.8
No	WZRB	D25	DT	LIC	COLUMBIA, SC	BLANK0000081456	167.8

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D24
Mask: Full Service
Latitude: 33 5 24.80 N (NAD83)
Longitude: 82 24 6.50 W
Height AMSL: 207.2 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: Dielectric-DLP-8B (ID 1009941) 20.0 deg
Elev Pattn: Generic
Elec Tilt: 1.00

49.8 dBu contour:
Azimuth ERP HAAT Distance

Table 1 W24FC-D TVStudy Analysis of Proposal
(page 2 of 4)



0.0 deg	14.4 kW	88.2 m	42.4 km
45.0	14.0	98.6	43.6
90.0	9.08	97.0	41.3
135.0	5.95	115.1	41.1
180.0	6.90	116.7	41.9
225.0	6.73	118.6	42.0
270.0	6.01	106.5	40.3
315.0	9.67	90.5	40.8

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 104 m

Distance to Canadian border: 954.4 km

Distance to Mexican border: 1609.5 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 292.4 degrees Distance: 231.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 297.6 degrees Distance: 2173.5 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%

Interference to BLCDT20110426AAQ LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WPXC-TV	D24	DT	LIC	BRUNSWICK, GA	BLCDT20110426AAQ	
Undesireds:	W24FC-D	D24	LD	APP	AUGUSTA, GA	W24FC-D 1013475 DLP-8B	259.1 km
	WTOC-TV	D23	DT	CP	SAVANNAH, GA	BLANK0000149921	141.3
	WDSC-TV	D24	DT	LIC	NEW SMYRNA BEACH, FL	BLANK0000090505	255.1
	WWSB	D24	DT	CP	SARASOTA, FL	BLANK0000035646	368.4
	WTLF	D24	DT	CP	TALLAHASSEE, FL	BLANK0000035775	213.8
	WITV	D24	DT	LIC	CHARLESTON, SC	BLANK0000118279	302.4
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
31644.4 1,560,880		31640.3 1,560,880		29889.4 1,548,758		29889.4 1,548,758	0.00 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
W24FC-D D24 LD APP		1.0 0				0.0 0	
WTOC-TV D23 DT CP		318.8 5,721		304.7 5,708		304.7 5,708	
WDSC-TV D24 DT LIC		1.0 0		1.0 0		1.0 0	
WTLF D24 DT CP		1431.1 6,401		1431.1 6,401		1431.1 6,401	
WITV D24 DT LIC		14.2 13		0.0 0		0.0 0	

Interference to BLCDT20110426AAQ LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WPXC-TV	D24	DT	LIC	BRUNSWICK, GA	BLCDT20110426AAQ	
Undesireds:	W24FC-D	D24	LD	APP	AUGUSTA, GA	W24FC-D 1013475 DLP-8B	259.1 km
	WTOC-TV	D23	DT	CP	SAVANNAH, GA	BLANK0000149921	141.3
	WDSC-TV	D24	DT	LIC	NEW SMYRNA BEACH, FL	BLANK0000090505	255.1
	WWSB	D24	DT	CP	SARASOTA, FL	BLANK0000035646	368.4
	WITV	D24	DT	LIC	CHARLESTON, SC	BLANK0000118279	302.4
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
31644.4 1,560,880		31640.3 1,560,880		31320.5 1,555,159		31320.5 1,555,159	0.00 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
W24FC-D D24 LD APP		1.0 0				0.0 0	
WTOC-TV D23 DT CP		318.8 5,721		304.7 5,708		304.7 5,708	

Table 1 W24FC-D TVStudy Analysis of Proposal
(page 3 of 4)



WDSC-TV D24 DT LIC	1.0	0	1.0	0	1.0	0
WITV D24 DT LIC	14.2	13	0.0	0	0.0	0

Interference to BLANK0000001315 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WGTA	D24	DT	LIC	TOCCOA, GA	BLANK0000001315	
Undesireds:	W24FC-D	D24	LD	APP	AUGUSTA, GA	W24FC-D 1013475 DLP-8B	191.1 km
	WTBM-CD	D24	DC	LIC	BIRMINGHAM, AL	BLANK0000001638	340.3
	WHIQ	D24	DT	LIC	HUNTSVILLE, AL	BLANK0000004828	289.1
	WXTX	D24	DT	LIC	COLUMBUS, GA	BLANK0000064021	276.7
	WCNC-TV	D24	DT	LIC	CHARLOTTE, NC	BLANK0000147158	216.5
	WETP-TV	D24	DT	LIC	SNEEDVILLE, TN	BLANK0000120200	197.6
	WATL	D25	DT	LIC	ATLANTA, GA	BLCDT20020716AAH	126.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
16677.9 1,060,190		15554.7 1,022,592		15434.3 1,013,701		15418.3 1,013,701	0.10 0.00
Undesired			Total IX	Unique IX, before		Unique IX, after	
W24FC-D D24 LD APP			29.0	62		16.0 0	
WHIQ D24 DT LIC			20.1	934		6.0 224	
WXTX D24 DT LIC			3.0	71		0.0 0	
WCNC-TV D24 DT LIC			54.1	2,272		36.1 1,581	
WETP-TV D24 DT LIC			14.9	432		5.9 358	
WATL D25 DT LIC			52.3	6,416		45.3 5,931	

Interference to BLANK0000147158 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WCNC-TV	D24	DT	LIC	CHARLOTTE, NC	BLANK0000147158	
Undesireds:	W24FC-D	D24	LD	APP	AUGUSTA, GA	W24FC-D 1013475 DLP-8B	275.2 km
	WBTW	D23	DT	LIC	CHARLOTTE, NC	BLANK0000147971	2.4
	WGTA	D24	DT	LIC	TOCCOA, GA	BLANK0000001315	216.5
	WUBX-CD	D24	DC	LIC	DURHAM, ETC., NC	BLANK0000108883	223.9
	WWAY	D24	DT	LIC	WILMINGTON, NC	BLANK0000100423	304.1
	WITV	D24	DT	LIC	CHARLESTON, SC	BLANK0000118279	301.3
	WETP-TV	D24	DT	LIC	SNEEDVILLE, TN	BLANK0000120200	214.4
	WRLH-TV	D24	DT	LIC	RICHMOND, VA	BLANK0000186907	399.7
	WJZY	D25	DT	LIC	BELMONT, NC	BLANK0000146872	2.2
	WZRB	D25	DT	LIC	COLUMBIA, SC	BLANK0000081456	145.7
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
40233.1 3,879,942		38550.8 3,802,586		36992.1 3,741,784		36992.1 3,741,784	0.00 0.00
Undesired			Total IX	Unique IX, before		Unique IX, after	
W24FC-D D24 LD APP			6.0	87		0.0 0	
WBTW D23 DT LIC			540.9	27,633		320.7 18,084	
WGTA D24 DT LIC			28.1	755		11.0 300	
WUBX-CD D24 DC LIC			14.0	1,003		1.0 0	
WWAY D24 DT LIC			417.7	10,205		345.5 8,028	
WITV D24 DT LIC			210.3	2,344		128.8 1,779	
WETP-TV D24 DT LIC			57.3	1,697		27.2 1,282	
WRLH-TV D24 DT LIC			17.0	1,622		6.0 128	
WJZY D25 DT LIC			608.9	28,514		385.7 19,255	
WZRB D25 DT LIC			22.2	138		5.0 44	

Interference to proposal scenario 1
4.13% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W24FC-D	D24	LD	APP	AUGUSTA, GA	W24FC-D 1013475 DLP-8B	
Undesireds:	WZVC-LD	D23	LD	LIC	ATHENS, GA	BLANK0000178758	112.3 km
	WAAU-LD	D23	LD	LIC	AUGUSTA, GA	BLDTL20120522AFJ	56.2
	WTLF	D24	DT	CP	TALLAHASSEE, FL	BLANK0000035775	306.1
	WPXC-TV	D24	DT	LIC	BRUNSWICK, GA	BLCDT20110426AAQ	259.1
	WGTA	D24	DT	LIC	TOCCOA, GA	BLANK0000001315	191.1
	WCNC-TV	D24	DT	LIC	CHARLOTTE, NC	BLANK0000147158	275.2

Table 1 W24FC-D TVStudy Analysis of Proposal
(page 4 of 4)



WITV		D24	DT	LIC	CHARLESTON, SC		BLANK0000118279		252.6
Service area		Terrain-limited		IX-free		Percent IX			
5449.1	102,304	5425.3		101,321	5394.5	97,136	0.57	4.13	
Undesired		Total IX		Unique IX		Prcnt Unique IX			
WAAU-LD	D23 LD LIC	3.0		1,800	3.0	1,800	0.05	1.78	
WPXC-TV	D24 DT LIC	11.9		196	7.0	52	0.13	0.05	
WGTA	D24 DT LIC	7.0		144	1.0	0	0.02	0.00	
WCNC-TV	D24 DT LIC	5.0		606	2.0	481	0.04	0.47	
WITV	D24 DT LIC	13.9		1,786	11.9	1,708	0.22	1.69	

**Channel and
Facility
Information**

Section	Question	Response
Facility ID	185708	
State	Georgia	
City	AUGUSTA	
LPD Channel	24	

**Antenna Location
Data**

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1013475
Coordinates (NAD83)	Latitude	33° 05' 24.8" N+
	Longitude	082° 24' 06.5" W-
	Structure Type	GTOWER-Guyed Structure Used for Communication Purposes
	Overall Structure Height	115.5 meters
	Support Structure Height	110.0 meters
	Ground Elevation (AMSL)	115.8 meters
Antenna Data	Height of Radiation Center Above Ground Level	91.4 meters
	Height of Radiation Center Above Mean Sea Level	207.2 meters
	Effective Radiated Power	15 kW

Antenna
Technical Data

Section	Question	Response
Antenna Type	Antenna Type	Directional Custom
	Do you have an Antenna ID?	Yes
	Antenna ID	1009941
Antenna Manufacturer and Model	Manufacturer:	Dielectric
	Model	DLP-8B
	Rotation	20 degrees
	Electrical Beam Tilt	1.0
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	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?	No
	Uploaded file for elevation antenna (or radiation) pattern data	
	Out-of-Channel Emission Mask:	Full Service

Directional Antenna Relative Field Values (Pre-rotated Pattern)

Degree	Value	Degree	Value	Degree	Value	Degree	Value
0	1.000	90	0.686	180	0.692	270	0.686
10	0.995	100	0.653	190	0.689	280	0.729
20	0.979	110	0.633	200	0.678	290	0.778
30	0.953	120	0.627	210	0.662	300	0.828
40	0.918	130	0.632	220	0.646	310	0.875
50	0.875	140	0.646	230	0.632	320	0.918
60	0.828	150	0.662	240	0.627	330	0.953
70	0.778	160	0.678	250	0.633	340	0.979
80	0.729	170	0.689	260	0.653	350	0.995

Additional Azimuths

Degree	V _A
--------	----------------