ENGINEERING EXHIBIT

Application for Modification of Digital Television Translator Station Construction Permit

prepared for

Gray Television Licensee, LLC
W27EF-D Charleston WV
Facility ID 36921
Ch. 27 (digital) 4 kW

Gray Television Licensee, LLC ("Gray") is the licensee of analog Television Translator station W16CE, Channel 16, Charleston WV, Facility ID 36921 (file# BLTTL-20030606ABF). As a result of the Special Displacement Window,[1] a Construction Permit ("CP" file# 0000054050) authorizes W16CE to operate on Channel 27 as digital with a new callsign of W27EF-D at 15 kW effective radiated power ("ERP") and a nondirectional antenna. *Gray* proposes herein a minor modification of the displacement CP for decreased ERP and antenna height, and to utilized a directional antenna. No change in site location is proposed.

W27EF-D will continue to utilize the tower structure associated with FCC Antenna Structure Registration number 1061555. The proposed antenna will be side-mounted on the tower and no change to the overall structure height will result.

The proposed directional antenna is a Kathrein model 723147 1x2 having horizontal polarization. The ERP is 4 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 51 dBµ coverage contour of the licensed Channel 16 facility and those of the Channel 27 CP and proposed facilities, demonstrating compliance with §73.3572 for a minor change.

[1] *"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 18-124, released February 9, 2018.

Interference study per OET Bulletin 69[2] shows that the proposal complies with the FCC's interference protection requirements toward all digital television, television translator, LPTV, and Class A stations (existing and post-auction). 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 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 20 percent antenna relative field in downward elevations (antenna elevation pattern data shows less than 20 percent relative field for angles 30-90 degrees below the horizontal), the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 30.7 $\mu W/cm^2$, which is 8.3 percent of the general population/uncontrolled maximum permitted exposure limit. A summary is provided in the following of RF signal density calculations that consider other authorized broadcast emitters that are near enough to be significant contributors near the W27EF-D site. For simplicity, all are considered to be located on the same tower as W27EF-D, while their actual locations are approximately 0.1 km distant.

[2]FCC 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 FCCs implementation of TVStudy show excellent correlation.

Summary of Radiofrequency Electromagnetic Field Calculations

Facility	Channel	ERP (kW)	Polari-zation	Relative Field	Distance (meters)	S - Calculated ($\mu W/cm^2$)	S - Limit ($\mu W/cm^2$)	Percent of Limit
W27EF-D Proposed CP modification	27	4	H	0.20	13.2	30.7	337.3	8.3%
WVPB(FM) Lic BLED-20060622AAJ	203	44	C	0.28	89.4	28.8	200	14.4%
W251BH Lic BMLFT-20190521AAB	251	0.25	V	1	38	5.8	200	2.9%
W205CG Lic BLFT-20190517AAS	203	0.25	V	1	38	5.8	200	2.9%
						Total Calculated Signal Density:		**28.5%**

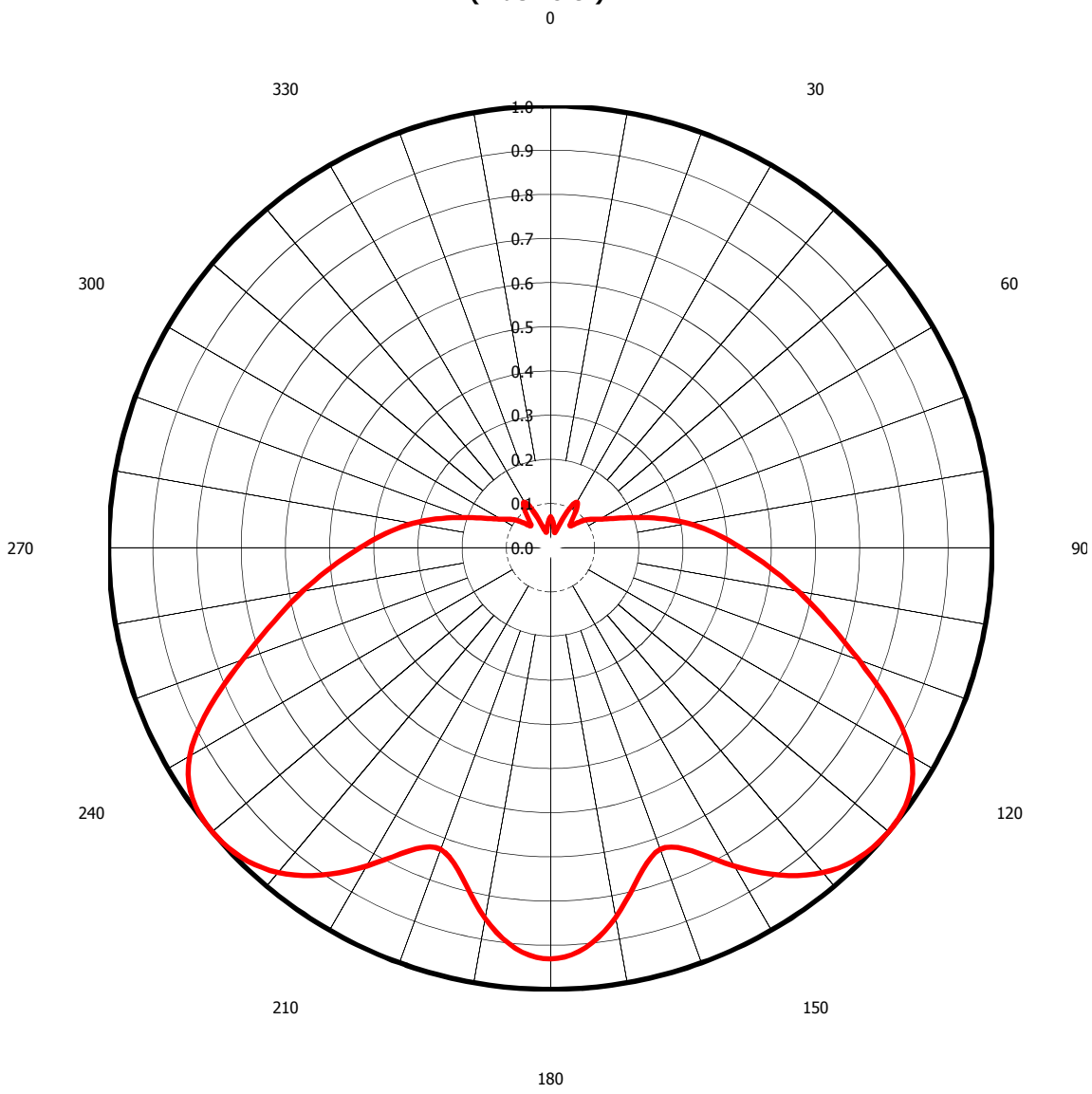
ERP: Effective Radiated Power
Polarization: C – Circular; E – Elliptical; H-Horizontal; V - Vertical
Field: Elevation Pattern Relative Field Value (from elevation data, or 1.0 worst-case)
Distance: Distance to radiation center (all assumed as co-located with proposal)
S-Calc: OET Bulletin 65 calculated value of signal density at two meters above ground level
S-Limit §1.1310 occupational/controlled limit for signal density

This analysis shows that the total maximum calculated RF density at two meters above ground level near the W27EF-D site will be 28.5 percent of the FCC's uncontrolled / general population maximum permissible exposure limit. 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 Coverage Contour Comparison
Table 1 TVStudy Analysis of Proposal
Form 2100 Saved Version of Engineering Sections from FCC Form at Time of Upload

Chesapeake RF Consultants, LLC
Joseph M. Davis, P.E. November 4, 2019
207 Old Dominion Road Yorktown, VA 23692 703-650-9600



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

Figure 1
Antenna Azimuthal Pattern
W27EF-D Charleston WV
Facility ID 36921
Ch. 27 (digital) 4 kW

prepared for
Gray Television Licensee, LLC

November, 2019

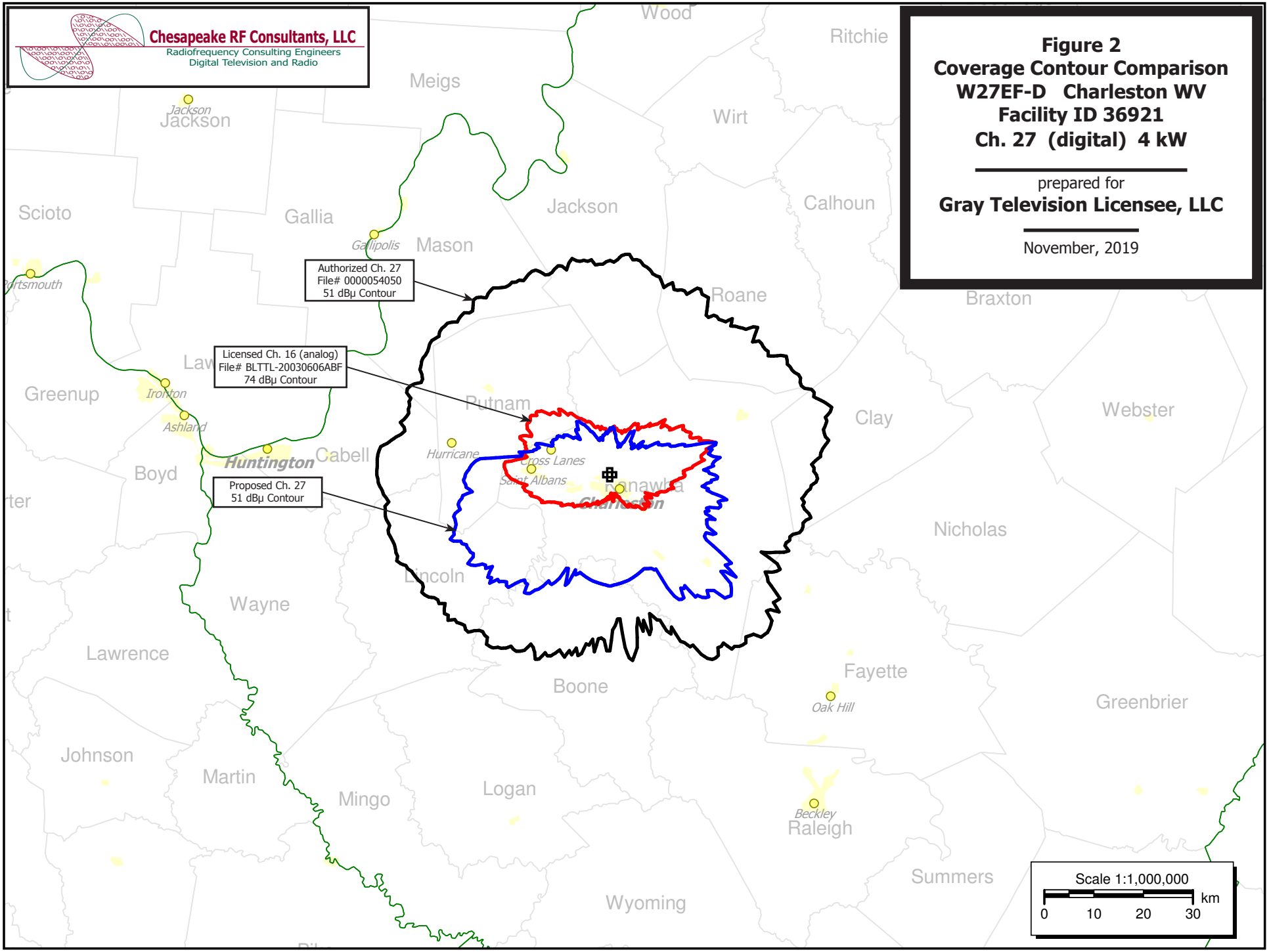

Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio
Figure 2
Coverage Contour Comparison
W27EF-D Charleston WV
Facility ID 36921
Ch. 27 (digital) 4 kW
prepared for
Gray Television Licensee, LLC
November, 2019
Authorized Ch. 27
File# 0000054050
51 dBµ Contour
Licensed Ch. 16 (analog)
File# BLTTL-20030606ABF
74 dBµ Contour
Proposed Ch. 27
51 dBµ Contour
Wood
Ritchie
Meigs
Jackson
Wirt
Scioto
Gallia
Calhoun
Gallipolis
Mason
Roane
Braxton
Greenup
Ironton
Ashland
Putnam
Clay
Webster
Huntington
Cabell
Hurricane
Cross Lanes
Saint Albans
Kanawha
Charleston
Boyd
Nicholas
Lincoln
Wayne
Lawrence
Fayette
Boone
Oak Hill
Greenbrier
Johnson
Martin
Mingo
Logan
Beckley
Raleigh
Summers
Wyoming
Scale 1:1,000,000
km
0
10
20
30

Table 1 W27EF-D TVStudy Analysis of Proposal


```
tvstudy v2.2.5 (4uoc83)
Database: localhost,  Study: W27EF-D MOD 4kW,  Model: Longley-Rice
Start: 2019.11.04 14:25:13

Study created: 2019.11.04 14:25:13

Study build station data: LMS TV 2019-10-29

    Proposal: W27EF-D D27 LD APP CHARLESTON, WV
 File number: W27EF-D MOD 4kW
 Facility ID: 36921
Station data: User record
   Record ID: 2916
     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	WKAS	D26	DT	LIC	ASHLAND, KY	BLEDT20020404ABM	84.5 km
No	WVVK-LP	D26-	LD	CP	MARTIN, KY	BLANK0000054354	143.3
No	WGPT	D26	DT	LIC	OAKLAND, MD	BLANK0000080370	234.3
No	WCPO-TV	D26	DT	LIC	CINCINNATI, OH	BLANK0000087181	260.2
No	WCSN-LD	D26	LD	CP	COLUMBUS, OH	BLANK0000053697	217.1
No	WIVD-LD	D26	LD	LIC	NEWCOMERSTOWN, OH	BLANK0000079906	220.9
No	WIVD-LD	D26	LD	CP	NEWCOMERSTOWN, OH	BLANK0000080067	220.9
No	W26EL-D	D26	LD	CP	CLARKSBURG, WV	BNPDTL20100514AAX	154.8
No	W30DG-D	D26	LD	CP	HUNTINGTON, WV	BLANK0000086400	65.2
No	WIYE-LD	D26	LD	LIC	PARKERSBURG, WV	BLANK0000079793	108.6
No	WETA-TV	D27	DT	LIC	WASHINGTON, DC	BLEDT20120731ALN	402.2
No	WTTV	D27	DT	LIC	BLOOMINGTON, IN	BLANK0000086972	405.2
No	WIPX-TV	D27	DT	LIC	BLOOMINGTON, IN	BLANK0000050610	404.8
No	WTVQ-DT	D27	DT	LIC	LEXINGTON, KY	BLANK0000087240	242.2
No	WMAR-TV	D27	DT	CP	BALTIMORE, MD	BLANK0000026796	446.1
No	WADL	D27	DT	CP	MOUNT CLEMENS, MI	BLANK0000027047	476.0
No	W27EK-D	D27	LD	LIC	BOONE, NC	BLANK0000082270	237.9
No	WUNW	D27	DD	APP	CANTON, NC	BLANK0000036076	331.2
No	WUNW	D27	DT	CP	CANTON, NC	BLANK0000035959	331.2
No	WUNW	D27	DT	LIC	CANTON, NC	BLEDT20110921AAA	331.2
No	WGTB-CD	D27	DC	CP	CHARLOTTE, NC	BLANK0000080004	337.8
No	WCCB	D27	DT	LIC	CHARLOTTE, NC	BLCDT20020227AAZ	355.0
No	WLFL	D27	DT	LIC	RALEIGH, NC	BLCDT20090612AIF	408.8
No	WUNP-TV	D27	DT	CP	ROANOKE RAPIDS, NC	BLANK0000034416	409.3
No	WEKA-LD	D27	LD	LIC	CANTON, OH	BLANK0000007976	345.9
No	W16DO-D	D27	DC	CP	CLEVELAND, OH	BLANK0000034701	334.4
No	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	209.7
No	WPNM-LP	D27z	LD	CP	LEIPSIC, OH	BLANK0000054500	362.2
No	W27DG-D	D27	LD	LIC	MILLERSBURG, OH	BLANK0000055476	283.0
No	W27DG-D	D27	LD	CP	MILLERSBURG, OH	BLANK0000058887	283.0
No	WQLN	D27	DT	LIC	ERIE, PA	BLANK0000083708	429.4
No	WTAE-TV	D27	DT	LIC	PITTSBURGH, PA	BLANK0000059152	265.0
No	WHVL-LD	D27	LD	LIC	STATE COLLEGE, ETC., PA	BLANK0000006251	423.3
Yes	WPXR-TV	D27	DT	LIC	ROANOKE, VA	BLANK0000081460	186.0
No	W08EE-D	D27	LD	CP	MARTINSBURG, WV	BLANK0000054634	333.3
No	W27EI-D	D27	LD	LIC	MOOREFIELD, WV	BLANK0000081243	247.7
Yes	WHJC-LP	D27	LD	LIC	WILLIAMSON, WV	BLDTL20100910AAH	89.2
No	WLEX-TV	D28	DT	CP	LEXINGTON, KY	BLANK0000028121	242.2
No	WLEX-TV	D28	DT	LIC	LEXINGTON, KY	BLANK0000087372	242.2
No	W28DD-D	D28	LD	LIC	LOUISA, KY	BLDTT20080919ABS	88.3
No	WSYX	D28	DT	CP	COLUMBUS, OH	BLANK0000027371	209.7
No	WSYX	D28	DT	LIC	COLUMBUS, OH	BLANK0000087264	209.7
No	WPTO	D28	DT	LIC	OXFORD, OH	BLEDT20040714AAQ	264.1
No	WPCB-TV	D28	DT	LIC	GREENSBURG, PA	BLANK0000079894	276.0
No	WEMT	D28	DT	LIC	GREENEVILLE, TN	BLANK0000072087	217.7
No	W28EM-D	D28	LD	CP	ROANOKE, VA	BDCCDTT20120710ABX	190.0
No	W28DR-D	D28	LD	LIC	CEDARVILLE, WV	BLDTT20130220AAB	94.8
No	W28EX-D	D28	LD	CP	CLARKSBURG, WV	BLANK0000072947	154.6

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

```
    Channel: D27
       Mask: Full Service
   Latitude:  38 22 31.00 N (NAD83)
  Longitude:  81 39 20.00 W
Height AMSL: 323.1 m
       HAAT: 0.0 m
   Peak ERP: 4.00 kW
    Antenna: KAT-K723147 1X2 (ID 1001019) 180.0 deg
Elev Pattrn: Generic
```

50.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.020 kW	67.4 m	10.0 km
45.0	0.027	57.2	10.0
90.0	0.743	54.0	22.3
135.0	3.84	87.0	35.4
180.0	3.47	17.2	23.6
225.0	3.84	60.4	31.5
270.0	0.743	119.1	30.4
315.0	0.027	70.5	11.0

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 67 m

Distance to Canadian border: 372.3 km

Distance to Mexican border: 1985.4 km

Conditions at FCC monitoring station: Laurel MD
Bearing: 76.7 degrees Distance: 428.0 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 283.0 degrees Distance: 2031.9 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%

Interference to BLANK0000081460 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WPXR-TV	D27	DT	LIC	ROANOKE, VA	BLANK0000081460	
Undesireds:	W27EF-D	D27	LD	APP	CHARLESTON, WV	W27EF-D MOD 4kW	186.0 km
	WGPX-TV	D26	DT	LIC	BURLINGTON, NC	BLANK0000081829	150.2
	WHTJ	D26	DT	CP	CHARLOTTESVILLE, VA	BLANK0000034130	170.7
	WTVQ-DT	D27	DT	LIC	LEXINGTON, KY	BLANK0000087240	385.0
	WMAR-TV	D27	DT	CP	BALTIMORE, MD	BLANK0000026796	386.8
	WUNW	D27	DD	APP	CANTON, NC	BLANK0000036076	306.1
	WGTB-CD	D27	DC	CP	CHARLOTTE, NC	BLANK0000080004	223.1
	WUNP-TV	D27	DT	CP	ROANOKE RAPIDS, NC	BLANK0000034416	229.4
	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	393.5
	WTAE-TV	D27	DT	LIC	PITTSBURGH, PA	BLANK0000059152	343.8
	WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK0000034379	323.3
	WJGN-CD	D27	DC	CP	CHESAPEAKE, VA	BLANK0000025319	339.0
	WMYV	D28	DT	CP	GREENSBORO, NC	BLANK0000034498	150.8
	WEMT	D28	DT	LIC	GREENEVILLE, TN	BLANK0000072087	193.1

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
39002.8	1,375,927	33080.5	1,204,959	32004.5	1,175,705	31953.0	1,175,218	0.16	0.04

Undesired		Total IX	Unique IX, before		Unique IX, after	
W27EF-D D27 LD APP	95.9	1,816			51.5	487
WGPX-TV D26 DT LIC	40.2	716	0.0	0	0.0	0
WHTJ D26 DT CP	4.1	1	0.0	0	0.0	0
WTVQ-DT D27 DT LIC	38.2	1,929	30.1	1,033	26.1	867
WMAR-TV D27 DT CP	37.5	510	19.3	242	19.3	242
WUNW D27 DD APP	3.0	15	1.0	0	1.0	0
WGTB-CD D27 DC CP	135.5	2,658	61.2	1,437	61.2	1,437
WUNP-TV D27 DT CP	676.8	17,439	526.0	12,535	526.0	12,535
WTTE D27 DT CP	43.4	1,156	23.2	258	6.1	95
WTAE-TV D27 DT LIC	29.3	430	11.1	136	5.0	35
WPDE-TV D27 DT CP	124.5	3,220	26.1	418	26.1	418
WJGN-CD D27 DC CP	1.0	1	0.0	0	0.0	0
WMYV D28 DT CP	239.2	10,188	157.8	6,974	157.8	6,974
WEMT D28 DT LIC	8.0	0	8.0	0	8.0	0

Interference to BLANK0000081460 LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WPXR-TV	D27	DT	LIC	ROANOKE, VA	BLANK0000081460	
Undesireds:	W27EF-D	D27	LD	APP	CHARLESTON, WV	W27EF-D MOD 4kW	186.0 km
	WGPX-TV	D26	DT	LIC	BURLINGTON, NC	BLANK0000081829	150.2
	WHTJ	D26	DT	CP	CHARLOTTESVILLE, VA	BLANK0000034130	170.7
	WTVQ-DT	D27	DT	LIC	LEXINGTON, KY	BLANK0000087240	385.0
	WMAR-TV	D27	DT	CP	BALTIMORE, MD	BLANK0000026796	386.8
	WUNW	D27	DT	CP	CANTON, NC	BLANK0000035959	306.1
	WGTB-CD	D27	DC	CP	CHARLOTTE, NC	BLANK0000080004	223.1
	WUNP-TV	D27	DT	CP	ROANOKE RAPIDS, NC	BLANK0000034416	229.4
	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	393.5
	WTAE-TV	D27	DT	LIC	PITTSBURGH, PA	BLANK0000059152	343.8
	WPDE-TV	D27	DT	CP	FLORENCE, SC	BLANK0000034379	323.3
	WJGN-CD	D27	DC	CP	CHESAPEAKE, VA	BLANK0000025319	339.0
	WMYV	D28	DT	CP	GREENSBORO, NC	BLANK0000034498	150.8
	WEMT	D28	DT	LIC	GREENEVILLE, TN	BLANK0000072087	193.1

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
39002.8	1,375,927	33080.5	1,204,959	32005.5	1,175,705	31954.0	1,175,218	0.16	0.04

Undesired		Total IX	Unique IX, before		Unique IX, after	
W27EF-D D27 LD APP	95.9	1,816			51.5	487
WGPX-TV D26 DT LIC	40.2	716	0.0	0	0.0	0
WHTJ D26 DT CP	4.1	1	0.0	0	0.0	0
WTVQ-DT D27 DT LIC	38.2	1,929	30.1	1,033	26.1	867
WMAR-TV D27 DT CP	37.5	510	19.3	242	19.3	242
WGTB-CD D27 DC CP	135.5	2,658	61.2	1,437	61.2	1,437
WUNP-TV D27 DT CP	676.8	17,439	526.0	12,535	526.0	12,535
WTTE D27 DT CP	43.4	1,156	23.2	258	6.1	95
WTAE-TV D27 DT LIC	29.3	430	11.1	136	5.0	35
WPDE-TV D27 DT CP	124.5	3,220	26.1	418	26.1	418
WJGN-CD D27 DC CP	1.0	1	0.0	0	0.0	0
WMYV D28 DT CP	239.2	10,188	157.8	6,974	157.8	6,974
WEMT D28 DT LIC	8.0	0	8.0	0	8.0	0

Interference to BLDTL20100910AAH LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WHJC-LP	D27	LD	LIC	WILLIAMSON, WV	BLDTL20100910AAH	
Undesireds:	W27EF-D	D27	LD	APP	CHARLESTON, WV	W27EF-D MOD 4kW	89.2 km
	WVVK-LP	D26-	LD	CP	MARTIN, KY	BLANK0000054354	54.2
	WTVQ-DT	D27	DT	LIC	LEXINGTON, KY	BLANK0000087240	194.7
	WUNW	D27	DD	APP	CANTON, NC	BLANK0000036076	245.3
	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	257.8
	WPXR-TV	D27	DT	LIC	ROANOKE, VA	BLANK0000081460	190.6

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
2812.3	66,525	2405.1	55,995	2329.3	54,829	2298.1	54,726	1.34	0.19

Undesired		Total IX	Unique IX, before		Unique IX, after	

Table 1 W27EF-D TVStudy Analysis of Proposal

W27EF-D D27 LD APP	44.4	193			31.3	103
WVVK-LP D26- LD CP	28.3	496	22.2	372	20.2	372
WTVQ-DT D27 DT LIC	32.3	384	19.2	337	13.2	332
WTTE D27 DT CP	30.3	410	15.2	295	12.1	295
WPXR-TV D27 DT LIC	6.1	38	3.0	0	3.0	0

Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W27EF-D	D27	LD	APP	CHARLESTON, WV	W27EF-D MOD 4kW	
Undesireds:	WTVQ-DT	D27	DT	LIC	LEXINGTON, KY	BLANK0000087240	242.2 km
	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	209.7
	W27DG-D	D27	LD	LIC	MILLERSBURG, OH	BLANK0000055476	283.0
	WTAE-TV	D27	DT	LIC	PITTSBURGH, PA	BLANK0000059152	265.0
	WPXR-TV	D27	DT	LIC	ROANOKE, VA	BLANK0000081460	186.0
	WHJC-LP	D27	LD	LIC	WILLIAMSON, WV	BLDTL20100910AAH	89.2

Service area		Terrain-limited		IX-free		Percent IX	
1536.4	176,287	1382.6	155,545	1332.3	153,380	3.64	1.39

Undesired	Total IX		Unique IX		Prcnt Unique IX	
WTVQ-DT D27 DT LIC	2.0	149	1.0	149	0.07	0.10
WTTE D27 DT CP	26.2	801	24.1	572	1.75	0.37
WTAE-TV D27 DT LIC	5.0	286	3.0	152	0.22	0.10
WPXR-TV D27 DT LIC	1.0	713	1.0	713	0.07	0.46
WHJC-LP D27 LD LIC	21.1	579	16.1	216	1.16	0.14

Channel and Facility Information

Section	Question	Response
Facility ID	36921	
State	West Virginia	
City	CHARLESTON	
LPD Channel	27	

Antenna Location Data

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1061555
Coordinates (NAD83)	Latitude	38° 22' 31.0" N+
	Longitude	081° 39' 20.0" W-
	Structure Type	TOWER-A free standing or guyed struct
	Overall Structure Height	59.4 meters
	Support Structure Height	55.3 meters
	Ground Elevation (AMSL)	307.9 meters
Antenna Data	Height of Radiation Center Above Ground Level	15.2 meters
	Height of Radiation Center Above Mean Sea Level	323.1 meters
	Effective Radiated Power	4 kW

Antenna Technical Data

Section	Question	Response
Antenna Type	Antenna Type	Directional Custom
	Do you have an Antenna ID?	Yes
	Antenna ID	1001019
Antenna Manufacturer and Model	Manufacturer:	KAT
	Model	K723147 1X2
	Rotation	180 degrees
	Electrical Beam Tilt	Not Applicable
	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	.931	**90**	.431	**180**	.070	**270**	.431
10	.852	**100**	.317	**190**	.045	**280**	.570
20	.727	**110**	.199	**200**	.048	**290**	.743
30	.832	**120**	.129	**210**	.119	**300**	.943
40	.960	**130**	.095	**220**	.069	**310**	1.00
50	1.00	**140**	.069	**230**	.095	**320**	.960
60	.943	**150**	.119	**240**	.129	**330**	.832
70	.742	**160**	.048	**250**	.199	**340**	.727
80	.570	**170**	.045	**260**	.317	**350**	.850

Additional Azimuths

Degree	V_A