

## **ENGINEERING EXHIBIT**

### **Incentive Auction Channel Reassignment**

### **Application for Minor Modification of Digital Television Station Construction Permit**

prepared for

#### **Gray Television Licensee, LLC**

WVFX(DT) Clarksburg, WV

Facility ID 10976

Ch. 13 32 kW 243 m

*Gray Television Licensee, LLC* (“Gray”) is the licensee of digital television station WVFX(DT), Channel 10, Facility ID 10976, Clarksburg WV. Reassignment of WVFX from Channel 10 to Channel 13 was specified in the *Incentive Auction Closing and Channel Reassignment Public Notice* (“CCRPN”, DA 17-317, released April 13, 2017). A Construction Permit (“CP” file# 0000034189) authorizes WVFX to operate on Channel 13 at 110 kW effective radiated power (“ERP”) with a directional antenna at 212 meters height above average terrain (“HAAT”). WVFX transitioned to Channel 13 utilizing an interim antenna facility and the expiration date of the CP has been tolled (see file nos. 0000119356, 0000120287, 0000129895, 0000138023, and 0000138026).

Implementation of the final WVFX post-auction facility requires replacement of the WVFX tower. The replacement tower will be constructed immediately adjacent to the existing WVFX tower. The associated FCC Antenna Structure Registration number is 1034466.

The proposed WVFX facility will utilize a new antenna to be top-mounted on the replacement tower. *Gray* proposes herein a minor modification of the Channel 13 CP to utilize an alternate directional antenna at increased HAAT and decreased ERP. *Gray* proposes to operate WVFX with an ERP of 32 kW at 243 meters antenna HAAT. There will be no change to the transmitting location.

The proposed antenna is an elliptically polarized directional ERI model ATW5V5-ETP-13H (13 percent vertical polarization). The maximum horizontally polarized ERP is 32 kW and the maximum vertically polarized ERP is 4.16 kW. The vertically polarized component will not exceed the horizontally polarized component at any azimuth. The directional antenna's azimuthal patterns are depicted in Figures 1 and 1A for horizontal and vertical polarization, respectively. The antenna's elevation patterns are depicted in Figures 2 and 2A for horizontal polarization and in Figures 2B, and 2C for vertical polarization.

Figure 3 supplies a map that demonstrates compliance with §73.625(a)(1) regarding coverage of the entire principal community. The proposed facility's predicted population exceeds 95 percent of the *CCRPN* baseline facility's population.

As with the presently authorized facility, the proposed WVFX noise limited service contour ("NLSC") extends beyond that of the *CCRPN* facility. Interference study per FCC OET Bulletin 69<sup>1</sup> shows that the proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby full service and Class A television stations as required by §73.616. FCC processing of this proposal is requested using a 2 km cell size and 0.2 km terrain profile increment. The interference study output report is provided as Table 1.

The proposed 32 kW ERP exceeds the maximum permitted by §73.622(f)(7) for the proposed antenna HAAT of 243 meters. Section 73.622(f)(5) permits the maximum ERP to be exceeded in order to provide the same geographic coverage area as the largest station within the same market. As demonstrated in Figure 4, the total area within the proposed WVFX NLSC is 26,585 square kilometers, which does not exceed the NLSC area of WDTV(DT) (32,865 sq. km, Ch. 5, Weston WV, BLCDT-20090612AJX). Further, the proposed WVFX NLSC area is less than the 30,961 sq. km of the currently authorized WVFX facility (110 kW ERP, file# 0000034189). Although WVFX is located in Zone I, ERP in excess of 30 kW has already been

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<sup>1</sup>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, 2 km cell size, and 0.2 km terrain profile increment. Comparisons of various results of this computer program (run on a Mac processor) to the FCC's implementation of TVStudy show excellent correlation.

authorized for other Zone I VHF Channel 7-13 stations<sup>2</sup> on the basis of the same “largest station in the market” exception in §73.622(f)(5). Thus, the 32 kW ERP specified herein is in compliance with §73.622(f)(5).

### **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 30 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  $2.2 \mu\text{W}/\text{cm}^2$ , which is 1.1 percent of the general population/uncontrolled maximum permitted 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.

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<sup>2</sup>For example, see WPXS (160 kW ERP, Ch. 13, Lic file# 0000116945, Mount Vernon IL), WTPC-TV (85 kW ERP, Ch. 7, Lic file# 0000021983, Virginia Beach VA), and WBPH-TV (80.6 kW, Lic file# 0000064341, Bethlehem PA).

**Engineering Exhibit**  
**Gray Television Licensee, LLC (WVFX)**  
(page 4 of 4)



List of Attachments

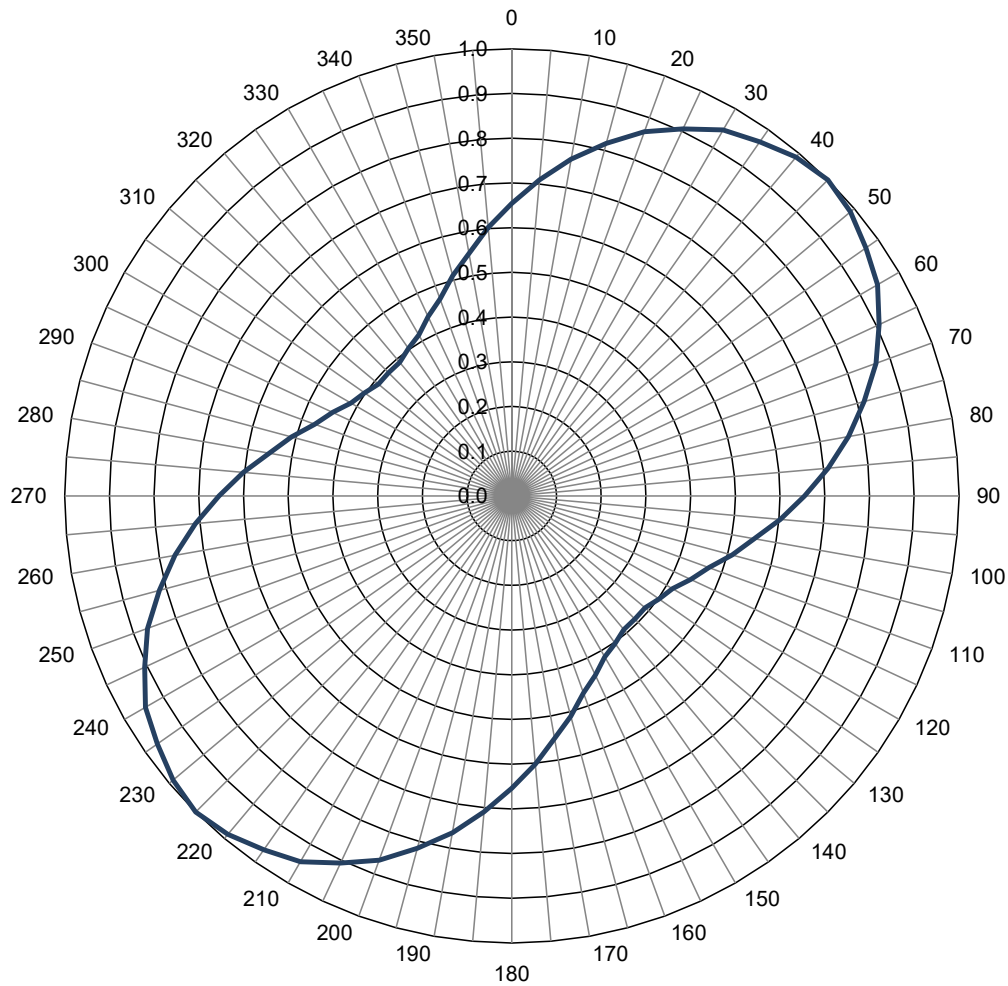
Figure 1, 1A	Antenna Azimuthal Pattern
Figure 2, 2A, 2B, 2C	Antenna Elevation Pattern
Figure 3	Proposed Coverage Contours
Figure 4	Coverage Contour Comparison
Table 1	TVStudy Analysis of Proposal
Form 2100	Saved Version of Engineering Sections from FCC Form at Time of Upload

**Chesapeake RF Consultants, LLC**

Joseph M. Davis, P.E.	May 12, 2021	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600

**Azimuth Pattern**

Type:	ATW-P	Polarization:	Horizontal
Directivity:	2.01 numeric (3.03 dB)	Frequency:	13 (ATSC)
Peak(s) at:		Location:	Clarksburg, WV
		NOTE: Pattern shape and directivity may vary with channel and mounting configuration.	

**Relative Field**ELECTRONICS RESEARCH, INC. **ERI**

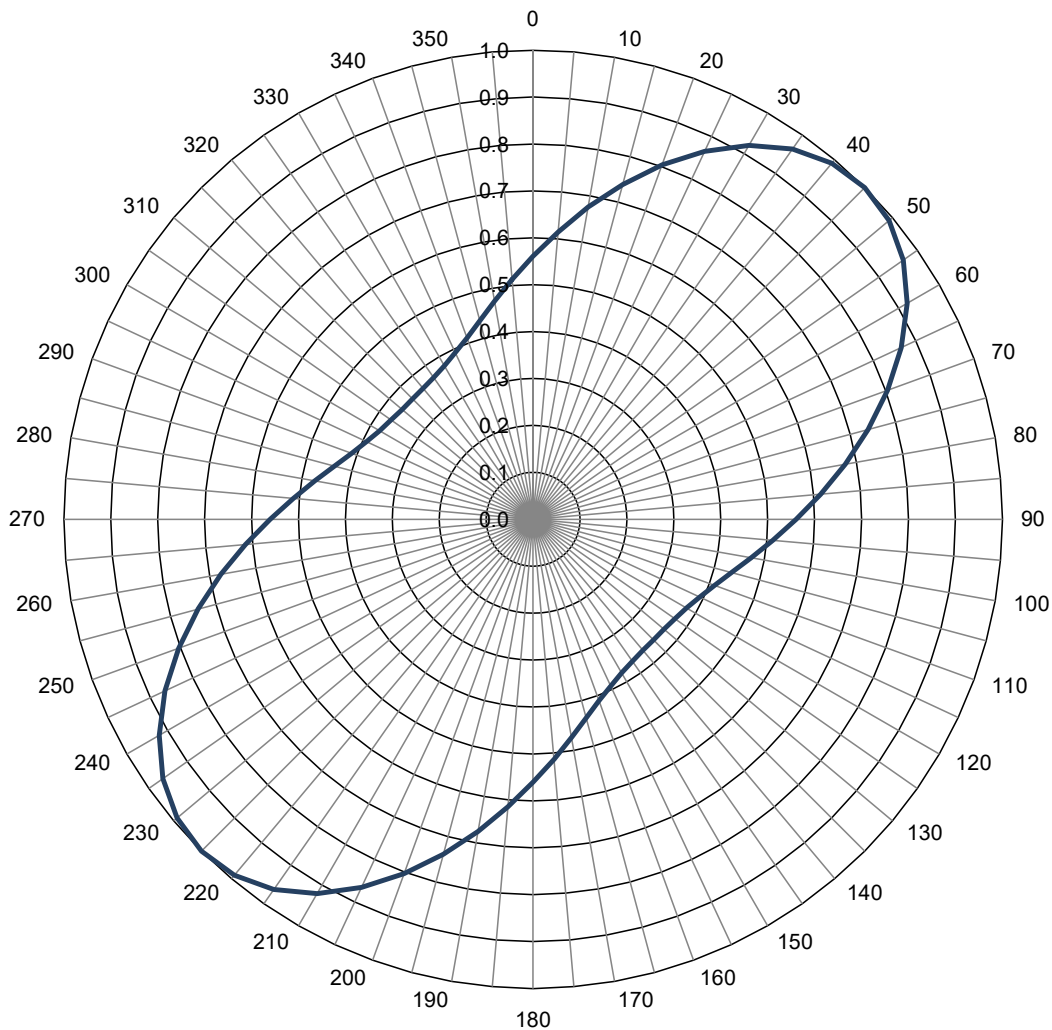
**Figure 1**  
**Antenna Azimuthal Pattern**  
**Horizontal Polarization**  
**WVFX(DT) Clarksburg, WV**  
**Facility ID 10976**  
**Ch. 13 32 kW 243 m**

prepared for  
**Gray Television Licensee, LLC**

May, 2021

**Azimuth Pattern**

Type:	ATW-P-V	Polarization:	Vertical
Directivity:	2.30 numeric (3.62 dB)	Frequency:	13 (ATSC)
Peak(s) at:		Location:	Clarksburg, WV
		NOTE: Pattern shape and directivity may vary with channel and mounting configuration.	

**Relative Field**ELECTRONICS RESEARCH, INC. **ERI**

**Figure 1A**  
**Antenna Azimuthal Pattern**  
**Vertical Polarization (Ref 13%)**  
**WVFX(DT) Clarksburg, WV**  
**Facility ID 10976**  
**Ch. 13 32 kW 243 m**

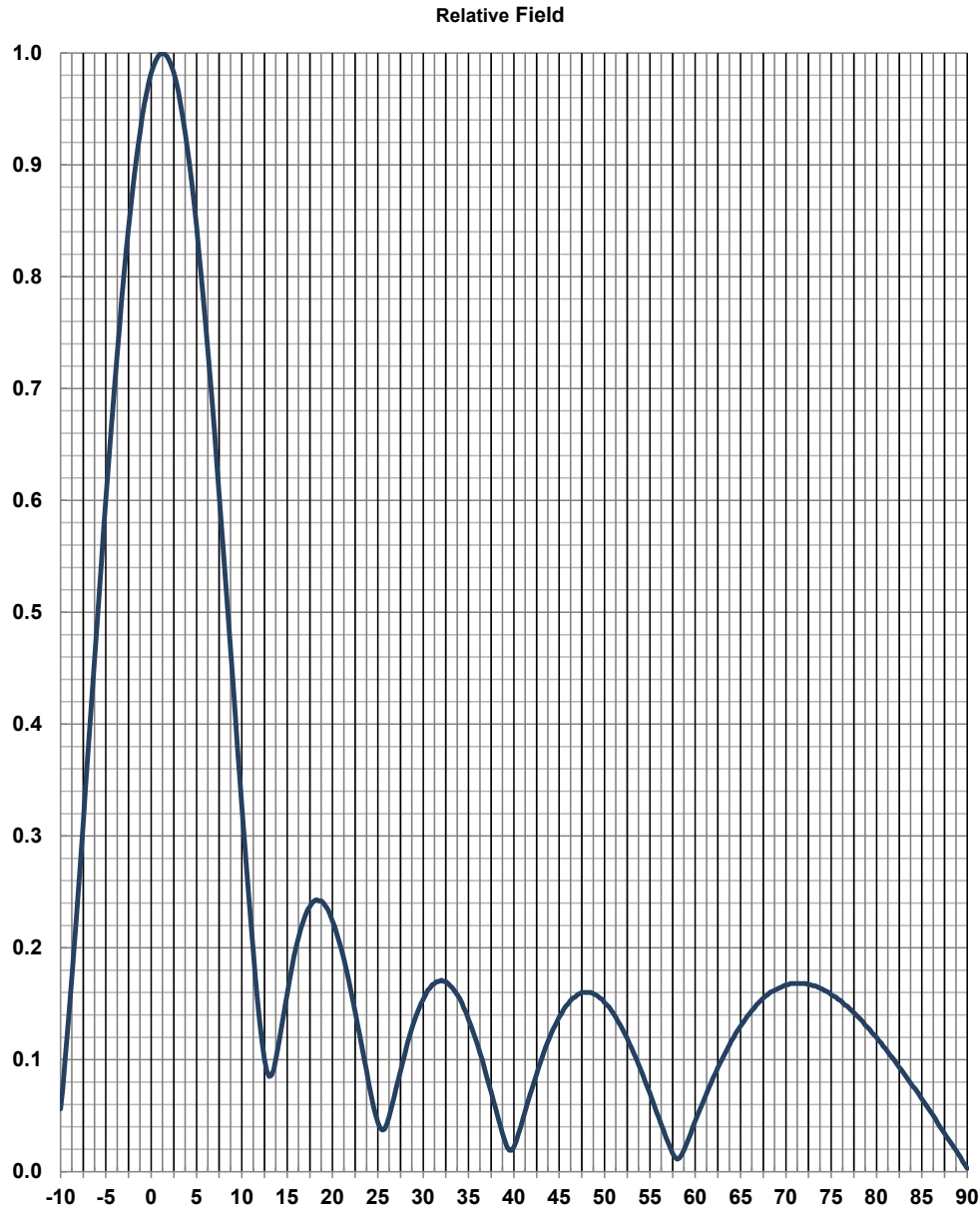
prepared for  
**Gray Television Licensee, LLC**

May, 2021



**Elevation Pattern**

Type:	ATW5V5H		Polarization:	Horizontal
Directivity:			Frequency:	13 (ATSC)
Main Lobe:	5.00 numeric	(6.99 dB)	Location:	Clarksburg, WV
Horizontal:	4.82 numeric	(6.83 dB)	Beam Tilt:	1.25 degrees

**ELECTRONICS RESEARCH, INC. ERI**

**Figure 2**  
**Antenna Elevation Pattern**  
**Horizontal Polarization**  
**WVFX(DT) Clarksburg, WV**  
**Facility ID 10976**  
**Ch. 13 32 kW 243 m**

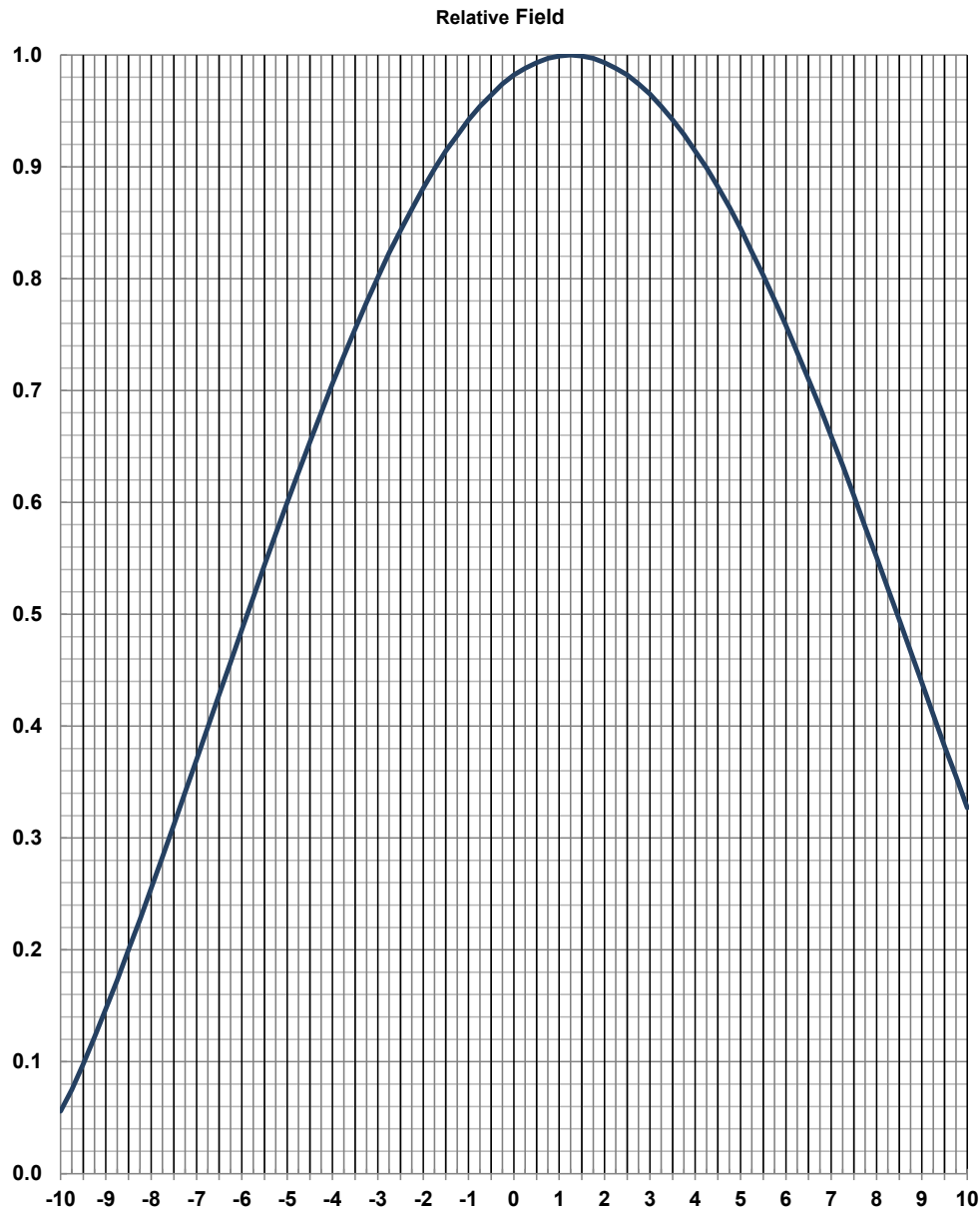
prepared for  
**Gray Television Licensee, LLC**

May, 2021



**Elevation Pattern**

Type:	ATW5V5H		Polarization:	Horizontal
Directivity:			Frequency:	13 (ATSC)
Main Lobe:	5.00 numeric	(6.99 dB)	Location:	Clarksburg, WV
Horizontal:	4.82 numeric	(6.83 dB)	Beam Tilt:	1.25 degrees

**ELECTRONICS RESEARCH, INC. ERI**

**Figure 2A - Detail  
Antenna Elevation Pattern  
Horizontal Polarization  
WVFX(DT) Clarksburg, WV  
Facility ID 10976  
Ch. 13 32 kW 243 m**

prepared for  
**Gray Television Licensee, LLC**

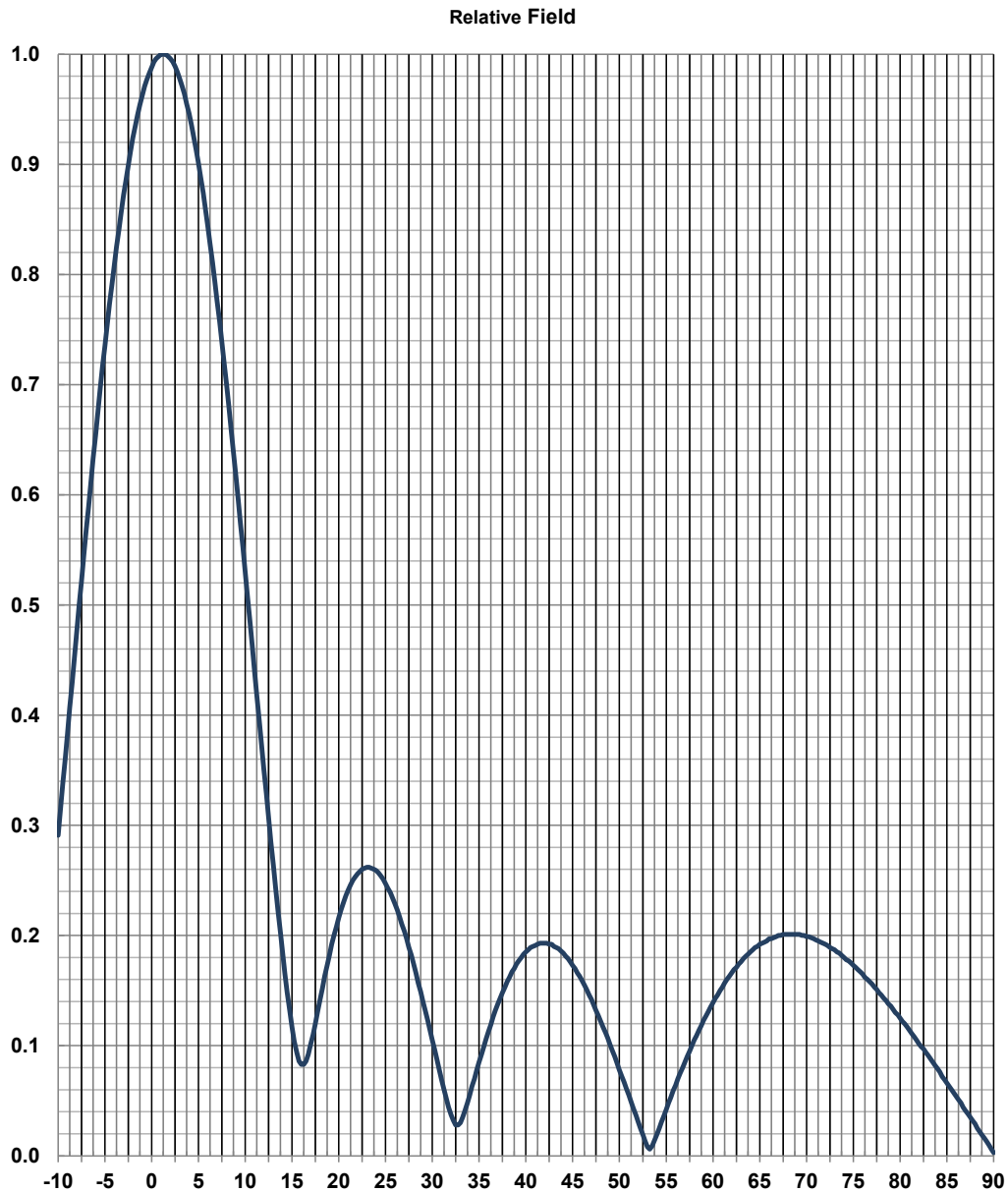
May, 2021





**Elevation Pattern**

Type:	ATW4V5H		Polarization:	Vertical
Directivity:			Frequency:	13 (ATSC)
Main Lobe:	4.00 numeric	(6.02 dB)	Location:	Clarksburg, WV
Horizontal:	3.90 numeric	(5.92 dB)	Beam Tilt:	1.25 degrees

**ELECTRONICS RESEARCH, INC. ERI**

**Figure 2B**  
**Antenna Elevation Pattern**  
**Vertical Polarization**  
**WVFX(DT) Clarksburg, WV**  
**Facility ID 10976**  
**Ch. 13 32 kW 243 m**

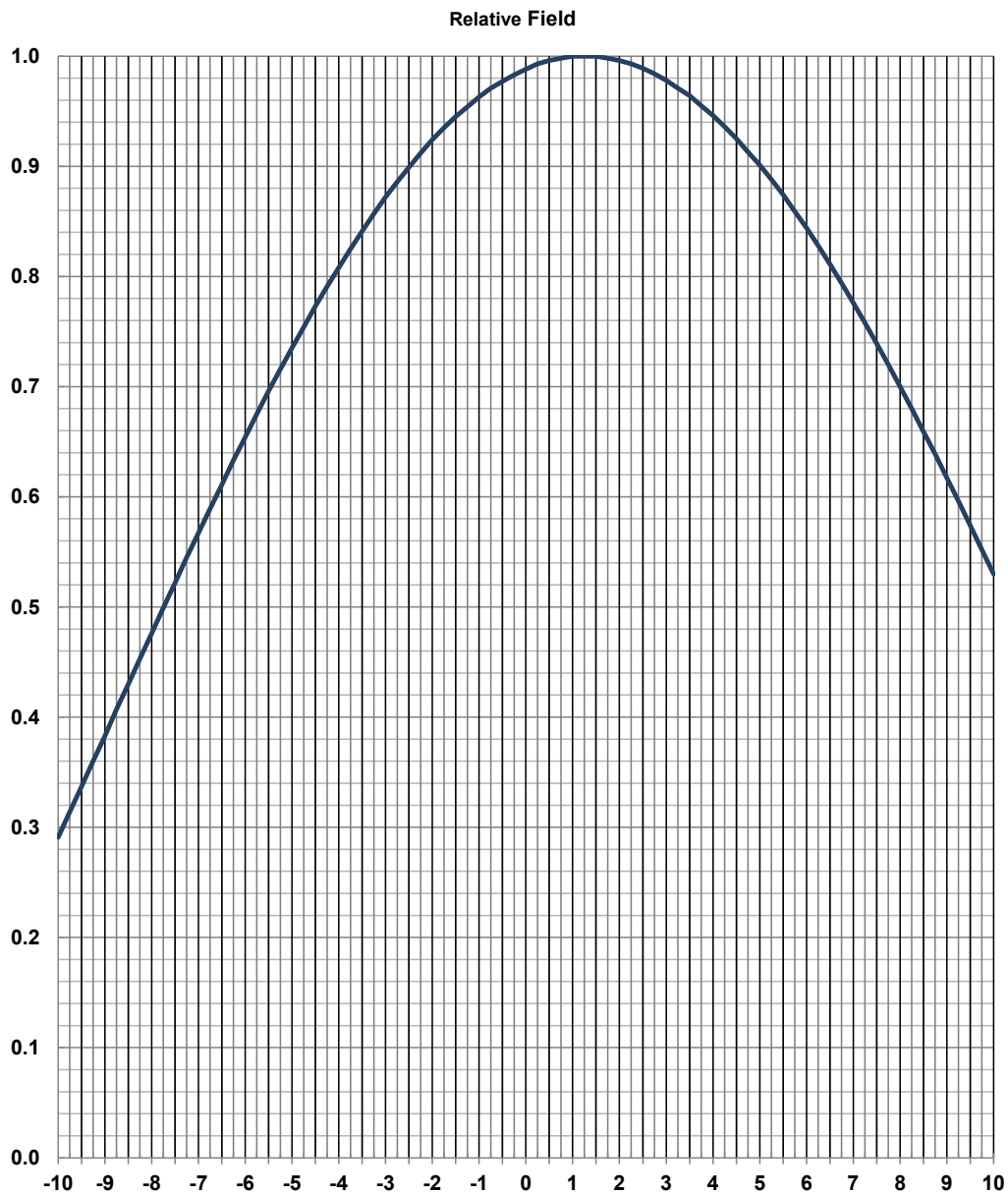
prepared for  
**Gray Television Licensee, LLC**

May, 2021



**Elevation Pattern**

Type:	ATW4V5H		Polarization:	Vertical
Directivity:			Frequency:	13 (ATSC)
Main Lobe:	4.00 numeric	(6.02 dB)	Location:	Clarksburg, WV
Horizontal:	3.90 numeric	(5.92 dB)	Beam Tilt:	1.25 degrees

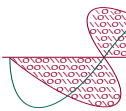
**ELECTRONICS RESEARCH, INC. ERI**

**Figure 2C - Detail  
Antenna Elevation Pattern  
Vertical Polarization  
WVFX(DT) Clarksburg, WV  
Facility ID 10976  
Ch. 13 32 kW 243 m**

prepared for  
**Gray Television Licensee, LLC**

May, 2021





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

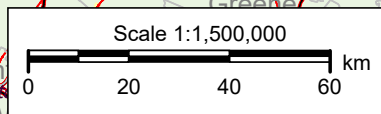
**Figure 3**  
**Proposed Coverage Contours**  
**WVFX(DT) Clarksburg, WV**  
**Facility ID 10976**  
**Ch. 13 32 kW 243 m**

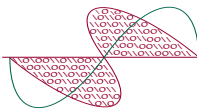
prepared for  
**Gray Television Licensee, LLC**

May, 2021

Proposed WVFX	
43 dBu	(Principal Community)
36 dBu	(Noise Limited Service Contour)

Proposed Digital Coverage	Area (sq. km)	Population (2010 Census)
Within Noise Limited Service Contour	26,585.1	722,680
OET Bulletin 69: TVStudy Within noise limited contour	26,460.6	720,101
Not affected by terrain losses	24,671.8	641,121
Lost to all interference	143.7	2,804
Net Interference-Free Service	24,528.1	638,317





**Chesapeake RF Consultants, LLC**

Radiofrequency Consulting Engineers  
Digital Television and Radio

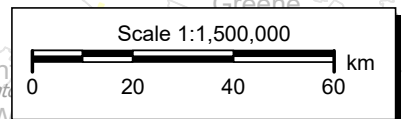
**Figure 4**  
**Maximum ERP per §73.622(f)**  
**WVFX(DT) Clarksburg, WV**  
**Facility ID 10976**  
**Ch. 13 32 kW 243 m**

prepared for  
**Gray Television Licensee, LLC**

May, 2021

Proposed WVFX  
36 dBu Contour (NLSC)  
Area: 26,585 sq. km

WDTV(DT) Ch. 5 Weston, WV  
BLCDT-20090612AJX  
28 dBu Contour (NLSC)  
Area: 32,865 sq. km



**Table 1 WVFX TVStudy Analysis of Proposal**  
(page 1 of 4)



tvstudy v2.2.5 (4uoc83)

Database: localhost, Study: WVFX Ch13 prop CP-MOD 2.0-0.2, Model: Longley-Rice  
Start: 2021.05.11 14:44:08

Study created: 2021.05.11 14:43:41

Study build station data: LMS TV 2021-05-11

Proposal: WVFX D13 DT APP CLARKSBURG, WV  
File number: WVFX Ch13 prop CP-MOD  
Facility ID: 10976  
Station data: User record  
Record ID: 3630  
Country: U.S.  
Zone: I

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	WMFD-TV	D12	DT	LIC	MANSFIELD, OH	BLCDT20081112ALJ	252.8 km
No	WVPT	D12	DD	CP	STAUNTON, VA	BLANK0000028448	154.6
Yes	WBOY-TV	D12	DT	LIC	CLARKSBURG, WV	BLANK0000003150	2.1
No	WHYY-TV	D13	DT	LIC	WILMINGTON, DE	BLANK00000124776	444.3
Yes	WTSF	D13	DT	LIC	ASHLAND, KY	BLANK00000117277	203.3
No	WSKY-TV	D13	DT	LIC	MANTEO, NC	BLANK00000116863	469.9
No	WTVG	D13	DT	LIC	TOLEDO, OH	BLANK00000143483	370.8
Yes	WWPX-TV	D13	DT	LIC	MARTINSBURG, WV	BLANK00000117578	221.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D13  
Latitude: 39 18 2.00 N (NAD83)  
Longitude: 80 20 36.00 W  
Height AMSL: 602.0 m  
HAAT: 242.7 m  
Peak ERP: 32.0 kW  
Antenna: ERI ATW5V5-ETP-13H 20210111-071-1r1c 0.0 deg  
Elev Pattn: None

36.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	13.7 kW	253.0 m	92.8 km
45.0	32.0	245.5	98.9
90.0	13.7	241.1	92.0
135.0	4.85	257.8	84.9
180.0	13.7	228.8	91.1
225.0	32.0	248.1	99.1
270.0	13.7	221.7	90.5
315.0	4.85	246.0	84.3

ERP exceeds maximum

ERP: 32.0 kW ERP maximum: 30.0 kW

Proposal 21.00 dBu contour does not cross Canadian border

Distance to Canadian border: 316.0 km

Distance to Mexican border: 2138.5 km

Conditions at FCC monitoring station: Laurel MD

Bearing: 91.7 degrees Distance: 303.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 280.5 degrees Distance: 2122.2 km

**Table 1 WVFX TVStudy Analysis of Proposal**  
(page 2 of 4)



Study cell size: 2.00 km  
Profile point spacing: 0.20 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 BLANK000003150 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WBOY-TV	D12	DT	LIC	CLARKSBURG, WV	BLANK0000003150	
Undesireds:	WVFX	D13	DT	BL	CLARKSBURG, WV	DTVBL10976	2.1 km
	WVFX	D13	DT	APP	CLARKSBURG, WV	WVFX Ch13 prop CP-MOD	2.1
	WYMT-TV	D12	DT	LIC	HAZARD, KY	BLCDDT20040109ACY	340.6
	WBAL-TV	D12	DT	LIC	BALTIMORE, MD	BLANK0000120167	316.4
	WKRC-TV	D12	DT	LIC	CINCINNATI, OH	BLCDDT20090622AFI	359.9
	WMFD-TV	D12	DT	LIC	MANSFIELD, OH	BLCDDT20081112ALJ	254.8
	WICU-TV	D12	DT	LIC	ERIE, PA	BLANK0000074553	306.8
	WVPT	D12	DD	CP	STAUNTON, VA	BLANK0000028448	152.5
-----							
	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	26747.7	711,302	25090.3	635,022	24950.4	632,640	24950.4 632,425 -0.00 0.03
Undesired			Total IX	Unique IX, before		Unique IX, after	
WVFX D13 DT BL			8.0	9	8.0	9	
WVFX D13 DT APP			7.9	224		7.9	224
WYMT-TV D12 DT LIC			24.0	370	20.0	295	295
WBAL-TV D12 DT LIC			31.8	449	31.8	449	449
WKRC-TV D12 DT LIC			12.0	133	8.0	58	58
WMFD-TV D12 DT LIC			56.1	917	52.1	723	723
WICU-TV D12 DT LIC			8.1	773	4.0	579	579
WVPT D12 DD CP			8.0	0	8.0	0	0

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Interference to BLANK000003150 LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WBOY-TV	D12	DT	LIC	CLARKSBURG, WV	BLANK0000003150	
Undesireds:	WVFX	D13	DT	BL	CLARKSBURG, WV	DTVBL10976	2.1 km
	WVFX	D13	DT	APP	CLARKSBURG, WV	WVFX Ch13 prop CP-MOD	2.1
	WYMT-TV	D12	DT	LIC	HAZARD, KY	BLCDDT20040109ACY	340.6
	WBAL-TV	D12	DT	LIC	BALTIMORE, MD	BLANK0000136441	316.4
	WKRC-TV	D12	DT	LIC	CINCINNATI, OH	BLCDDT20090622AFI	359.9
	WMFD-TV	D12	DT	LIC	MANSFIELD, OH	BLCDDT20081112ALJ	254.8
	WICU-TV	D12	DT	LIC	ERIE, PA	BLANK0000074553	306.8
	WVPT	D12	DD	CP	STAUNTON, VA	BLANK0000028448	152.5
-----							
	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	26747.7	711,302	25090.3	635,022	24950.4	632,640	24950.4 632,425 -0.00 0.03
Undesired			Total IX	Unique IX, before		Unique IX, after	
WVFX D13 DT BL			8.0	9	8.0	9	
WVFX D13 DT APP			7.9	224		7.9	224
WYMT-TV D12 DT LIC			24.0	370	20.0	295	295
WBAL-TV D12 DT LIC			31.8	449	31.8	449	449
WKRC-TV D12 DT LIC			12.0	133	8.0	58	58
WMFD-TV D12 DT LIC			56.1	917	52.1	723	723
WICU-TV D12 DT LIC			8.1	773	4.0	579	579
WVPT D12 DD CP			8.0	0	8.0	0	0

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Interference to BLANK0000117277 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTSP	D13	DT	LIC	ASHLAND, KY	BLANK0000117277	
Undesireds:	WVFX	D13	DT	BL	CLARKSBURG, WV	DTVBL10976	203.3 km
	WVFX	D13	DT	APP	CLARKSBURG, WV	WVFX Ch13 prop CP-MOD	203.3
	WTHR	D13	DT	APP	INDIANAPOLIS, IN	BPCDDT20130702ABM	366.3

**Table 1 WVFX TVStudy Analysis of Proposal**  
(page 3 of 4)



WLOS	D13	DT	LIC	ASHEVILLE, NC	BLCDT20101014ABR	334.3
Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
22254.6	922,441	21264.1	861,594	21192.1	860,289	21029.0 856,673 0.77 0.42
Undesired	Total IX		Unique IX, before		Unique IX, after	
WVFX D13 DT BL	64.0	1,284	56.1	1,168		
WVFX D13 DT APP	231.1	4,910			219.2	4,784
WTHR D13 DT APP	4.0	10	4.0	10	0.0	0
WLOS D13 DT LIC	11.9	127	4.0	11	4.0	11

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Interference to BLANK0000117277 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance		
	WTSF	D13	DT	LIC	ASHLAND, KY	BLANK0000117277			
Undesireds:	WVFX	D13	DT	BL	CLARKSBURG, WV	DTVBL10976	203.3 km		
	WVFX	D13	DT	APP	CLARKSBURG, WV	WVFX Ch13 prop CP-MOD	203.3		
	WLOS	D13	DT	LIC	ASHEVILLE, NC	BLCDT20101014ABR	334.3		
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
22254.6	922,441	21264.1		861,594	21196.1	860,299	21029.0	856,673	0.79    0.42
Undesired				Total IX	Unique IX, before		Unique IX, after		
WVFX	D13	DT	BL	64.0	1,284	56.1	1,168		
WVFX	D13	DT	APP	231.1	4,910		223.2	4,794	
WLOS	D13	DT	LIC	11.9	127	4.0	11	4.0	11

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Interference to BLANK0000117578 LIC scenario 1

Desired:	Call WWPX-TV	Chan D13	Svc DT	Status LIC	City, State MARTINSBURG, WV	File Number BLANK0000117578	Distance
Undesireds:	WVFX	D13	DT	BL	CLARKSBURG, WV	DTVBL10976	221.4 km
	WVFX	D13	DT	APP	CLARKSBURG, WV	WVFX Ch13 prop CP-MOD	221.4
	WBAL-TV	D12	DT	LIC	BALTIMORE, MD	BLANK0000120167	97.0
	WHYY-TV	D13	DT	LIC	WILMINGTON, DE	BLANK0000124776	234.3
	WSKY-TV	D13	DT	LIC	MANTEO, NC	BLANK0000116863	328.4
Service area		Terrain-limited			IX-free, before	IX-free, after	Percent New IX
18935.7	2,299,441	16865.8	2,227,812	16533.8	2,190,624	16529.8 2,190,610	0.02 0.00
Undesired				Total IX	Unique IX, before	Unique IX, after	
WVFX D13 DT BL	0.0			0	0.0	0	
WVFX D13 DT APP	7.9			172		4.0	14
WBAL-TV D12 DT LIC	87.6			6,955	59.7 3,938	59.7	3,938
WHYY-TV D13 DT LIC	171.9			24,909	116.0 12,902	116.0	12,902
WSKY-TV D13 DT LIC	128.4			17,331	100.4 8,341	100.4	8,341

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Interference to BLANK0000117578 LIC scenario 2

Desired:	Call WWPX-TV	Chan D13	Svc DT	Status LIC	City, State MARTINSBURG, WV	File Number BLANK0000117578	Distance
Undesireds:	WVFX	D13	DT	BL	CLARKSBURG, WV	DTVBL10976	221.4 km
	WVFX	D13	DT	APP	CLARKSBURG, WV	WVFX Ch13 prop CP-MOD	221.4
	WBAL-TV	D12	DT	LIC	BALTIMORE, MD	BLANK0000136441	97.0
	WHYY-TV	D13	DT	LIC	WILMINGTON, DE	BLANK0000124776	234.3
	WSKY-TV	D13	DT	LIC	MANTEO, NC	BLANK0000116863	328.4
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
18935.7	2,299,441	16865.8	2,227,812	16533.8	2,190,624	16529.8 2,190,610	0.02 0.00
Undesired				Total IX	Unique IX, before		Unique IX, after
WVFX D13 DT BL			0.0	0	0.0	0	
WVFX D13 DT APP			7.9	172		4.0	14
WBAL-TV D12 DT LIC			87.6	6,955	59.7	3,938	59.7 3,938
WHYY-TV D13 DT LIC			171.9	24,909	116.0	12,902	116.0 12,902
WSKY-TV D13 DT LIC			128.4	17,331	100.4	8,341	100.4 8,341

**Table 1 WVFX TVStudy Analysis of Proposal**  
(page 4 of 4)

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Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WVFX	D13	DT	APP	CLARKSBURG, WV	WVFX Ch13 prop CP-MOD	
Undesireds:	WTSF	D13	DT	LIC	ASHLAND, KY	BLANK0000117277	203.3 km
	WTVG	D13	DT	LIC	TOLEDO, OH	BLANK0000143483	370.8
	WWPX-TV	D13	DT	LIC	MARTINSBURG, WV	BLANK0000117578	221.4
Service area		Terrain-limited		IX-free		Percent IX	
26460.6	720,101	24671.8	641,121	24528.1	638,317	0.58	0.44
Undesired		Total IX		Unique IX		Prcnt Unique IX	
WTSF D13 DT LIC		119.8	2,640	103.9	2,418	0.42	0.38
WTVG D13 DT LIC		12.0	86	8.1	54	0.03	0.01
WWPX-TV D13 DT LIC		27.8	300	15.9	110	0.06	0.02



**Channel and  
Facility  
Information**

Section	Question	Response
<b>Proposed Community of License</b>	Facility ID	10976
	State	West Virginia
	City	CLARKSBURG
	DTV Channel	13
	Designated Market Area	Clarksburg-Weston
<b>Facility Type</b>	Facility Type	Commercial
	Station Type	Main
<b>Zone</b>	Zone	1

**Antenna Location  
Data**

Section	Question	Response
<b>Antenna Structure Registration</b>	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1034466
<b>Coordinates (NAD83)</b>	Latitude	39° 18' 02.0" N+
	Longitude	080° 20' 36.0" W-
	Structure Type	TOWER-A free standing or guyed struct
	Overall Structure Height	192.7 meters
	Support Structure Height	182.9 meters
	Ground Elevation (AMSL)	414.5 meters
<b>Antenna Data</b>	Height of Radiation Center Above Ground Level	187.5 meters
	Height of Radiation Center Above Average Terrain	242.7 meters
	Height of Radiation Center Above Mean Sea Level	602.0 meters
	Effective Radiated Power	32 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	ATW5V5-ETP-13H
	Rotation	0 degrees
	Electrical Beam Tilt	1.25
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Elliptical
DTV and DTS: Elevation 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	

**Directional Antenna Relative Field Values (Pre-rotated Pattern)**

Degree	Value	Degree	Value	Degree	Value	Degree	Value
0	0.654	90	0.655	180	0.654	270	0.655
10	0.765	100	0.551	190	0.765	280	0.551
20	0.867	110	0.469	200	0.867	290	0.469
30	0.945	120	0.415	210	0.945	300	0.415
40	0.989	130	0.389	220	0.988	310	0.389
50	0.989	140	0.390	230	0.989	320	0.390
60	0.945	150	0.416	240	0.946	330	0.416
70	0.867	160	0.469	250	0.867	340	0.469
80	0.765	170	0.551	260	0.765	350	0.551

**Additional Azimuths**

Degree	V <sub>A</sub>
45	1
225	1

**Construction  
Permit  
Certifications**

Section	Question	Response
<b>Post-Incentive Auction Expedited Processing</b>	It will operate on the DTV channel for this station as established in the post-incentive auction channel reassignment public notice.	Yes
	It will operate post-incentive auction facilities that do not expand the noise-limited service contour in any direction beyond that established by the post-incentive auction channel reassignment public notice.	No
	It will operate post-incentive auction facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the post-incentive auction channel reassignment public notice.	Yes
	The antenna structure to be used by this facility has been registered by the Commission and will not require re-registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely affect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.	Yes
<b>Environmental Effect</b>	Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? (See 47 C.F.R. Section 1.1306)	No
<b>Broadcast Facility</b>	The proposed facility complies with the applicable engineering standards and assignment requirements of 47 C. F.R. Sections 73.616, 73.622(i), 73.623(e), 73.625, 73.1030, and 73.1125.	Yes