

ENGINEERING EXHIBIT

Displacement Application of Construction Permit Digital to Digital Replacement Translator Television Station

prepared for

Gray Television Licensee, LLC

WHSV-TV Harrisonburg, VA

DTDRT Broadway, VA

Facility ID 4688

Ch. 25 15 kW Directional

Gray Television Licensee, LLC (“Gray”) is the licensee of television station WHSV-TV, Harrisonburg, VA, Facility ID 4688. WHSV-TV was reassigned from Channel 49 to Channel 20 in the *Incentive Auction Closing and Channel Reassignment Public Notice* (“CCRPN”, DA 17-317, released April 13, 2017). An “unable to construct” waiver was granted regarding implementation of WHSV-TV’s Channel 20 reassignment at the WHSV-TV Channel 49 reference transmitter site at Big Mountain, and a priority filing window¹ Construction Permit (“CP”, file# 0000029912) authorized the WHSV-TV Channel 20 post-auction facility to be sited at Elliott Knob, located 76.6 km from the Channel 49 site at Big Mountain. WHSV-TV has completed its transition to Channel 20 and is now licensed with its reassignment facility (file# 0000063970).

Owing to the 76.6 km change in WHSV-TV’s transmitter site location, there are widespread areas of service loss. To recover those losses, *Gray* obtained authorizations to construct three new digital-to-digital replacement translator (“DTDRT”) facilities. One of those DTDRT authorizations is a CP to utilize Channel 15 (file# 0000071679) to aid in serving Broadway, VA and other nearby communities. The Channel 15 DTDRT facility is authorized to operate from an existing tower at Little North Mountain with a directional antenna at 15 kW maximum effective radiated power (“ERP”). *Gray* herein seeks a minor modification of the CP to change to Channel 25 as a displacement and to utilize a different transmitting location.

¹Public Notice “*Incentive Auction Task Force and Media Bureau Announce the Opening of the First Priority Filing Window for Eligible Full Power and Class A Television Stations from August 9 through September 8, 2017*” DA 17-724, released July 31, 2017.

The existing Channel 15 CP will be displaced by the pending channel substitution proceeding for full-power station WVPT(DT) (Fac ID 60111, Staunton, VA). MB Docket 21-248² proposes to substitute Channel 15 for WVPT's unconstructed post-auction Channel 12 and licensed pre-auction Channel 11. WVPT is currently operating pursuant to Special Temporary Authority on Channel 12. The authorized WHSV-TV Channel 15 DTDRT site is located 60.9 km from the WVPT transmitter site and is within the subject WVPT Channel 15 noise limited service contour. TVStudy analysis shows that the authorized WHSV-TV Channel 15 DTDRT would cause 9.62 percent interference to the WVPT Channel 15 facility and would receive 72.4 percent interference from the WVPT Channel 15 facility. Therefore, the authorized WHSV-TV Channel 15 Broadway DTDRT will be displaced, and *Gray* now seeks to use Channel 25 for the Broadway DTDRT.

In addition to the change to Channel 25, *Gray* proposes to utilize an alternate transmitting site location for the Broadway DTDRT. Regarding the authorized Channel 15 site, ownership of the existing tower at Little North Mountain has changed and there are concerns regarding the structural capacity of the tower to add WHSV-TV's equipment. Accordingly, *Gray* seeks herein to construct a new tower structure for the Channel 25 DTDRT at Great North Mountain, located 29.9 km (18.6 miles) from the currently authorized site at Little North Mountain.

The proposed tower's overall height is 51.8 meters (170 feet) above ground level, including the proposed Channel 25 side-mounted antenna. The proposed antenna supporting structure does not require an Antenna Structure Registration as the overall structure height is less than 61 meters above ground and passes the FCC's TOWAIR program for the site location.

The proposed Channel 25 DTDRT site is located within the quiet zone area specified in §73.1030(a) requiring coordination with National Radio Astronomy Observatory ("NRAO") at Green Bank, WV. The proposed modification and frequency change to Channel 25 have been coordinated with NRAO and a concurrence letter is attached separately.

²*Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Staunton, VA)*, MB Docket No. 21-248, RM 11910, DA 21-694, released June 15, 2021.

The proposed antenna is an ERI model ETU4U5-ESP2C-25 having elliptical polarization (30 percent vertical polarization). This is generally the same antenna and directional pattern as currently authorized, with minor adjustments to the azimuthal pattern and beamtilt to consider the change in site location. The ERP is 15 kW using a “full service” out of channel emission mask. The maximum horizontally polarized ERP is 15 kW and the maximum vertically polarized ERP is 4.5 kW. A plot of the directional antenna’s azimuthal pattern is supplied in Figure 1. Figure 2 depicts the 51 dBμ coverage contour of the authorized Channel 15 and proposed Channel 25 facilities, with the overlap demonstrating compliance with §73.3572 for a displacement and minor change.

As demonstrated in Figure 3, the proposed DTDRT coverage contour does not extend beyond WHSV-TV’s pre-auction digital service area. Figure 3 also shows that the Channel 25 DTDRT will provide service to various locations that lost interference-free service when WHSV-TV transitioned to its reassignment facility.

Interference study per OET Bulletin 69³ 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 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 15 percent antenna relative field in downward elevations (pattern data shows less than 15 percent relative field at angles 35 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

³FCC 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

WHSV-TV DTDRT Channel 25 Broadway, VA (page 4 of 4)



7.2 $\mu\text{W}/\text{cm}^2$, which is 2.0 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 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.

List of Attachments

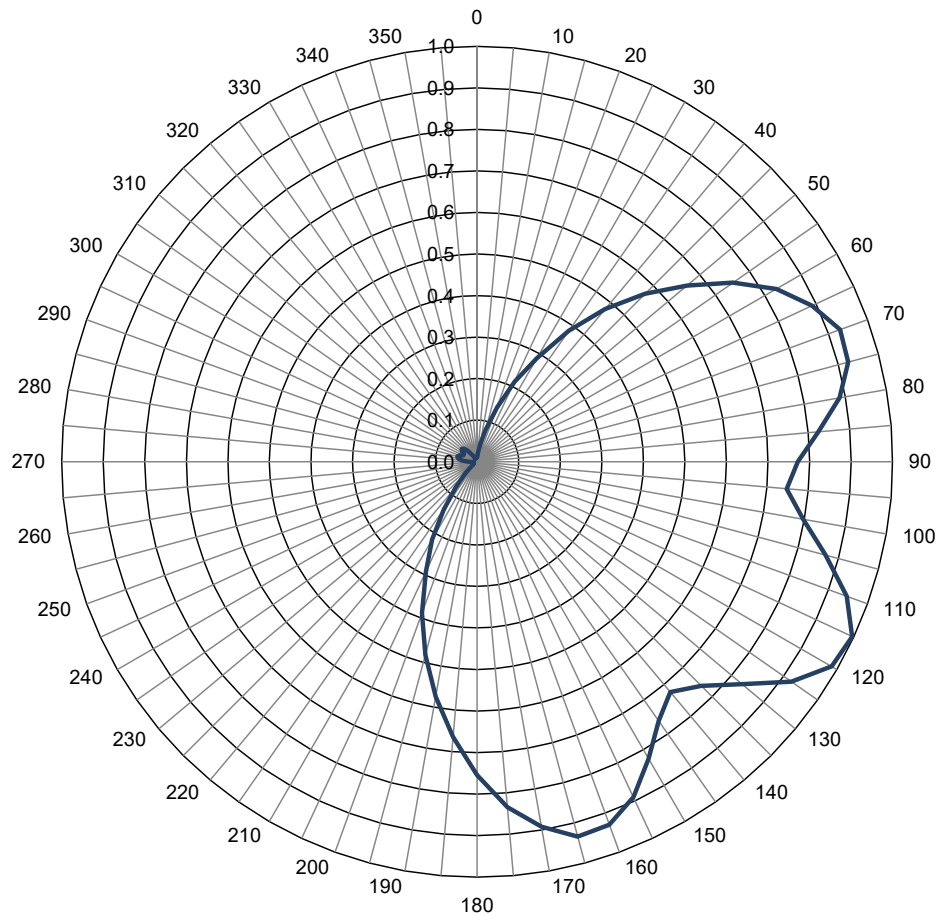
Figure 1	Antenna Azimuthal Pattern
Figure 2	Coverage Contour Comparison
Figure 3	Repack Service Loss – Proposed Translator Contour
Table 1	TVStudy Analysis of Proposal

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E.	December 14, 2021	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600

Azimuth Pattern

Type:	ETUP2C-H	Polarization:	Horizontal
Directivity:	3.31 numeric (5.20 dB)	Frequency:	25 (ATSC)
Peak(s) at:		Location:	Harrisonburg, VA
		NOTE: Pattern shape and directivity may vary with channel and mounting configuration.	

Relative FieldELECTRONICS RESEARCH, INC. **ERI****Figure 1**

Antenna Azimuthal Pattern
WHSV-TV Harrisonburg, VA
DTDRT Broadway, VA
Facility ID 4688
Ch. 25 15 kW Directional

prepared for
Gray Television Licensee, LLC

December, 2021



Figure 2
Coverage Contour Comparison
WHSV-TV Harrisonburg, VA
DTDRT Broadway, VA
Facility ID 4688
Ch. 25 15 kW Directional

prepared for
Gray Television Licensee, LLC

December, 2021

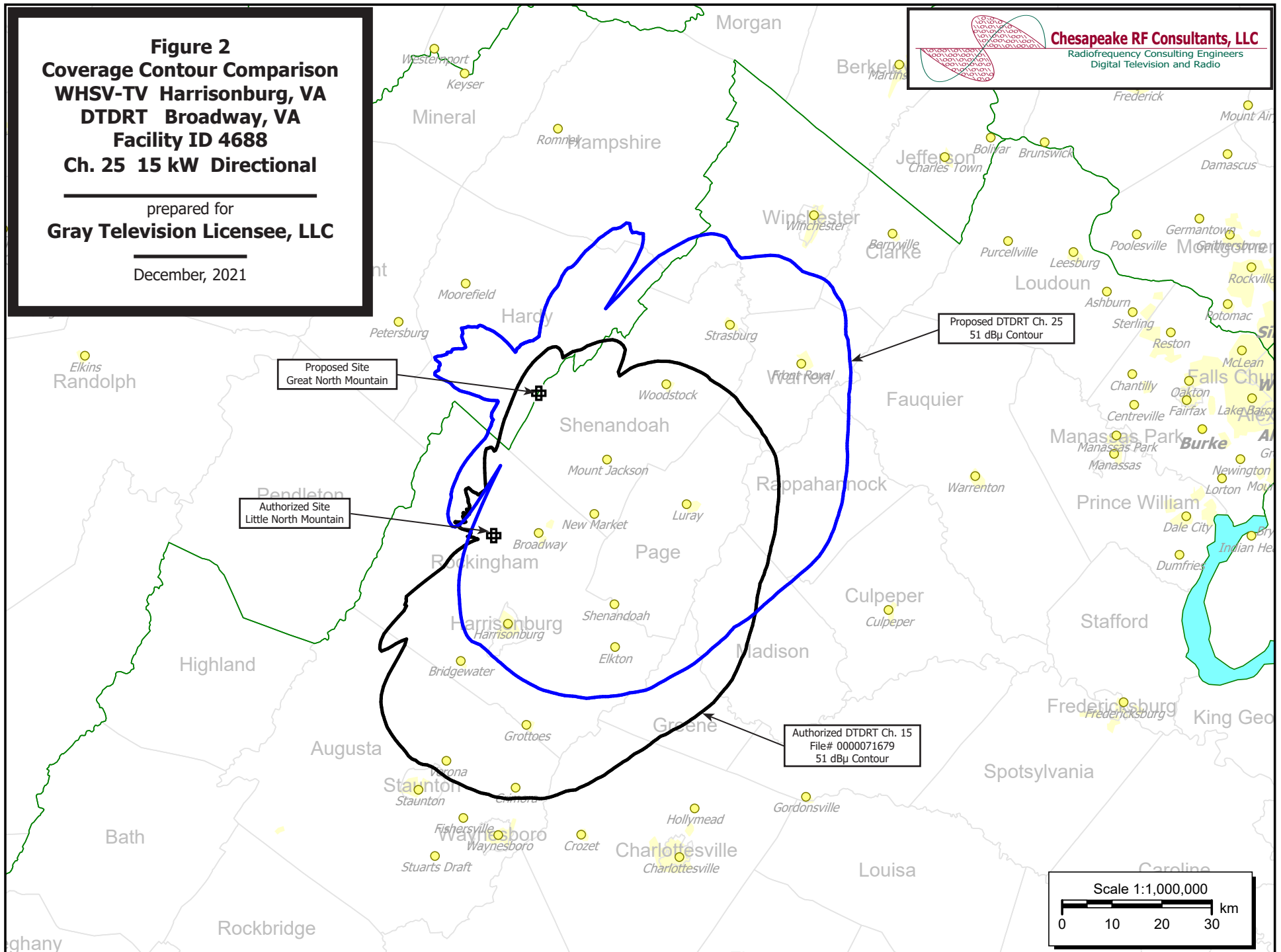
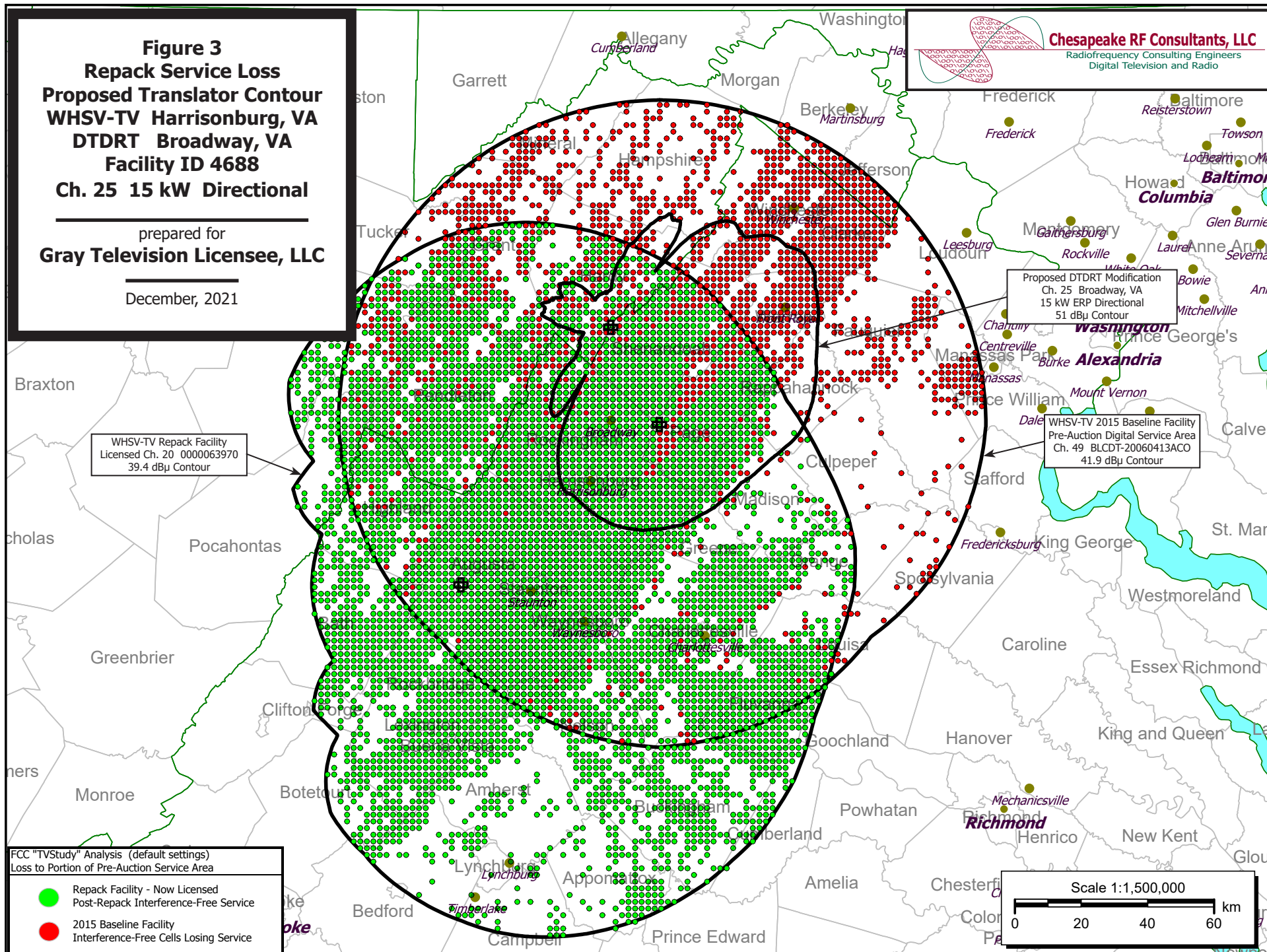


Figure 3
Repack Service Loss
Proposed Translator Contour
WHSV-TV Harrisonburg, VA
DTDRT Broadway, VA
Facility ID 4688
Ch. 25 15 kW Directional

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Gray Television Licensee, LLC

December, 2021



WHSV-TV Repack Facility
 Licensed Ch. 20 0000063970
 39.4 dBu Contour

Proposed DTDRT Modification
 Ch. 25 Broadway, VA
 15 kW ERP Directional
 51 dBu Contour

WHSV-TV 2015 Baseline Facility
 Pre-Auction Digital Service Area
 Ch. 49 BLCDT-20060413ACO
 41.9 dBu Contour

FCC "TVStudy" Analysis (default settings)
 Loss to Portion of Pre-Auction Service Area

- Repack Facility - Now Licensed
 Post-Repack Interference-Free Service
- 2015 Baseline Facility
 Interference-Free Cells Losing Service

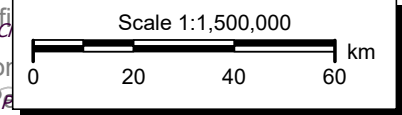
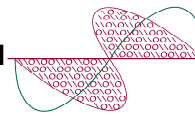


Table 1 WHSV-TV DRT Ch. 25 TVStudy Analysis of Proposal (page 1 of 4)



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

tvstudy v2.2.5 (4uoc83)

Database: localhost, Study: WHSV-TV DRT-3_Ch25_, Model: Longley-Rice

Start: 2021.12.14 09:11:47

Study created: 2021.12.14 09:11:47

Study build station data: LMS TV 2021-12-14

Proposal: WHSV-TV D25 LD APP Broadway, VA
File number: WHSV-TV DRT-3_Ch25
Facility ID: 4688
Station data: User record
Record ID: 4060
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	WDPB	D24	DT	LIC	SEAFORD, DE	BLANK0000080899	277.4 km
No	WTAJ-TV	D24	DT	LIC	ALTOONA, PA	BLANK0000079898	191.7
No	WPXI	D24	LD	LIC	PITTSBURGH, PA	BLANK0000106625	132.3
Yes	WHSV-TV	D24	LD	LIC	Massanutten, VA	BLANK0000122198	41.9
No	WRLH-TV	D24	DT	LIC	RICHMOND, VA	BLANK0000081561	183.2
No	WDCO-CD	D24	DC	LIC	WOODSTOCK, VA	BLANK0000138193	148.9
No	WVAH-TV	D24	DT	LIC	CHARLESTON, WV	BLANK0000167888	274.2
No	W24ER-D	D24	LD	LIC	CLARKSBURG, WV	BLANK0000058555	136.9
No	W24ES-D	D24	LD	LIC	MOOREFIELD, WV	BLANK0000081242	16.1
Yes	WNUV	D25	DT	LIC	BALTIMORE, MD	BLANK0000136472	192.7
Yes	W42CK	D25+	LD	CP	HAGERSTOWN, MD	BLANK0000054340	120.6
No	WJZY	D25	DT	LIC	BELMONT, NC	BLANK0000146872	441.7
No	WUNK-TV	D25	DT	LIC	GREENVILLE, NC	BLANK0000143143	383.1
No	WWOR-TV	D25	DT	LIC	SECAUCUS, NJ	BLANK0000054140	457.4
No	WSKA	D25	DT	LIC	CORNING, NY	BLANK0000080258	392.2
No	WCPX-LP	D25	LD	CP	COLUMBUS, OH	BLANK0000071598	385.2
No	WXCW-CD	D25	DC	LIC	DELAWARE, OH	BLANK0000087098	417.9
No	WTFX-TV	D25	LD	LIC	PHILADELPHIA, PA	BLANK0000064628	343.8
No	W25FG-D	D25	LD	LIC	Philadelphia, PA	BLANK0000124836	332.6
No	KDKA-TV	D25	DT	LIC	PITTSBURGH, PA	BLCDT20041004ACS	208.9
No	WVAD-LD	D25	LD	LIC	CHESAPEAKE, VA	BLDTL20121214ABD	317.7
No	WYAT-LD	D25z	LD	LIC	MARTINSVILLE, VA	BLANK0000116027	259.2
No	W25AA-D	D25	LD	LIC	ONANCOCK, VA	BLDTT20121127AMR	303.5
No	WWBK-LD	D25	LD	LIC	RICHMOND, VA	BLANK0000108657	183.2
No	WLFB	D25	DT	LIC	BLUEFIELD, WV	BLANK0000123625	282.2
No	W25FS-D	D25	LD	LIC	CLARKSBURG, WV	BLANK0000158968	169.9
No	W25FR-D	D25	LD	LIC	CLARKSBURG, WV	BLANK0000158971	169.9
No	W25FX-D	D25	LD	CP	SUTTON, WV	BLANK0000158455	166.9
No	WBFF	D26	DT	LIC	BALTIMORE, MD	BLANK0000136477	192.7
No	WGPT	D26	DT	LIC	OAKLAND, MD	BLANK0000080370	73.5
No	WOSC-CD	D26	DC	LIC	PITTSBURGH, PA	BLANK0000125715	202.0
No	W26EQ-D	D26	LD	LIC	STATE COLLEGE, PA	BLANK0000162843	219.9
Yes	WHTJ	D26	DT	LIC	CHARLOTTESVILLE, VA	BLANK0000112378	101.8
No	W26EL-D	D26	LD	CP	CLARKSBURG, WV	BNPDTL20100514AAX	136.7

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D25
Mask: Full Service
Latitude: 38 51 53.40 N (NAD83)
Longitude: 78 47 59.20 W
Height AMSL: 894.5 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: ERI 20201204-906-4r2 0.0 deg

Table 1 WHSV-TV DRT Ch. 25 TVStudy Analysis of Proposal
(page 2 of 4)



Elev Pattn: Generic
Elec Tilt: 1.20

49.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.002 kW	354.3 m	12.3 km
45.0	4.87	210.1	46.0
90.0	8.94	526.9	63.6
135.0	9.09	511.6	63.2
180.0	8.53	439.8	60.5
225.0	0.039	284.4	24.3
270.0	0.007	261.2	15.0
315.0	0.025	241.8	20.2

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 354 m

Distance to Canadian border: 406.8 km

Distance to Mexican border: 2216.0 km

Conditions at FCC monitoring station: Laurel MD
Bearing: 78.3 degrees Distance: 174.1 km

**Proposal is within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 282.0 degrees Distance: 2262.3 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 BLANK0000122198 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHSV-TV	D24	LD	LIC	Massanutten, VA	BLANK0000122198	
Undesireds:	WHSV-TV	D25	LD	APP	Broadway, VA	WHSV-TV DRT-3 Ch25	41.9 km
	WDVM-TV	D23	DT	LIC	HAGERSTOWN, MD	BLANK0000080408	84.2
	WDWA-LD	D23	LD	LIC	Damascus, VA	BLDTL20140528ACM	88.8
	W23DR-D	D23	LD	LIC	ROMNEY, WV	BLDTT20090609AAZ	51.1
	WTAJ-TV	D24	DT	LIC	ALTOONA, PA	BLANK0000079898	178.8
	WRLH-TV	D24	DT	LIC	RICHMOND, VA	BLANK0000081561	173.1
	WDCO-CD	D24	DC	LIC	WOODSTOCK, VA	BLANK0000138193	108.1
	W24ES-D	D24	LD	LIC	MOOREFIELD, WV	BLANK0000081242	50.0

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
10399.9	415,162	6394.8	258,313	6086.8	245,112	6080.9 245,044	0.10 0.03
Undesired			Total IX	Unique IX, before		Unique IX, after	
WHSV-TV D25 LD APP			7.0 68			6.0 68	
WDVM-TV D23 DT LIC			12.9 844	4.0 340		4.0 340	
WDWA-LD D23 LD LIC			58.9 8,566	2.0 50		2.0 50	
W23DR-D D23 LD LIC			43.7 237	11.9 53		11.9 53	
WTAJ-TV D24 DT LIC			85.6 1,088	25.9 111		25.9 111	
WRLH-TV D24 DT LIC			179.6 8,796	81.8 1,008		81.8 1,008	
WDCO-CD D24 DC LIC			111.7 10,459	28.9 687		28.9 687	
W24ES-D D24 LD LIC			40.8 1	11.9 1		11.9 1	

Interference to BLANK0000122198 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHSV-TV	D24	LD	LIC	Massanutten, VA	BLANK0000122198	
Undesireds:	WHSV-TV	D25	LD	APP	Broadway, VA	WHSV-TV DRT-3 Ch25	41.9 km
	WDVM-TV	D23	DT	APP	HAGERSTOWN, MD	BLANK0000127595	47.3

Table 1 WHSV-TV DRT Ch. 25 TVStudy Analysis of Proposal
(page 3 of 4)



WDWA-LD	D23	LD	LIC	Damascus, VA	BLDTL20140528ACM	88.8
W23DR-D	D23	LD	LIC	ROMNEY, WV	BLDTT20090609AAZ	51.1
WTAJ-TV	D24	DT	LIC	ALTOONA, PA	BLANK0000079898	178.8
WRLH-TV	D24	DT	LIC	RICHMOND, VA	BLANK0000081561	173.1
WDCO-CD	D24	DC	LIC	WOODSTOCK, VA	BLANK0000138193	108.1
W24ES-D	D24	LD	LIC	MOOREFIELD, WV	BLANK0000081242	50.0

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
10399.9 415,162	6394.8 258,313	6063.0 244,293	6057.0 244,225	0.10 0.03

Undesired	Total IX	Unique IX, before	Unique IX, after
WHSV-TV D25 LD APP 7.0	68	6.0	68
WDVM-TV D23 DT APP 36.8	1,309	27.8	1,159
WDWA-LD D23 LD LIC 58.9	8,566	2.0	50
W23DR-D D23 LD LIC 43.7	237	12.9	53
WTAJ-TV D24 DT LIC 85.6	1,088	24.9	213
WRLH-TV D24 DT LIC 179.6	8,796	84.8	1,398
WDCO-CD D24 DC LIC 111.7	10,459	25.9	687
W24ES-D D24 LD LIC 40.8	1	11.9	1

Interference to BLANK0000136472 LIC scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: WNUV	D25	DT	LIC	BALTIMORE, MD	BLANK0000136472	
Undesireds: WHSV-TV	D25	LD	APP	Broadway, VA	WHSV-TV DRT-3 Ch25	192.7 km
WDCO-CD	D24	DC	LIC	WOODSTOCK, VA	BLANK0000138193	57.7
WWOR-TV	D25	DT	LIC	SECAUCUS, NJ	BLANK0000054140	271.6
KDKA-TV	D25	DT	LIC	PITTSBURGH, PA	BLCDT20041004ACS	314.7
WQAV-CD	D26	DC	LIC	GLASSBORO, NJ	BLANK0000079835	161.2

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
29151.3 9,098,298	28008.0 8,900,934	27926.0 8,836,785	27886.2 8,834,599	0.14 0.02

Undesired	Total IX	Unique IX, before	Unique IX, after
WHSV-TV D25 LD APP 46.7	2,891	39.8	2,186
WDCO-CD D24 DC LIC 37.9	54,953	37.9	54,953
WWOR-TV D25 DT LIC 20.1	4,139	12.1	1,179
KDKA-TV D25 DT LIC 32.0	8,017	24.0	5,057
			17.0 4,352

Interference to BLANK0000054340 CP scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: W42CK	D25+	LD	CP	HAGERSTOWN, MD	BLANK0000054340	
Undesireds: WHSV-TV	D25	LD	APP	Broadway, VA	WHSV-TV DRT-3 Ch25	120.6 km
WNUV	D25	DT	LIC	BALTIMORE, MD	BLANK0000136472	101.8
KDKA-TV	D25	DT	LIC	PITTSBURGH, PA	BLCDT20041004ACS	214.2
WBFF	D26	DT	LIC	BALTIMORE, MD	BLANK0000136477	101.8

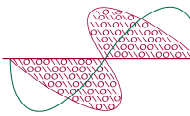
Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
2742.2 308,966	2436.7 294,555	2368.2 291,799	2368.2 291,799	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WHSV-TV D25 LD APP 2.0	63	0.0	0
WNUV D25 DT LIC 63.6	2,644	59.6	2,581
KDKA-TV D25 DT LIC 8.9	175	4.9	112
WBFF D26 DT LIC 4.0	63	0.0	0

Interference to BLANK0000112378 LIC scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: WHTJ	D26	DT	LIC	CHARLOTTESVILLE, VA	BLANK0000112378	
Undesireds: WHSV-TV	D25	LD	APP	Broadway, VA	WHSV-TV DRT-3 Ch25	101.8 km
WBFF	D26	DT	LIC	BALTIMORE, MD	BLANK0000136477	219.0
WGPT	D26	DT	LIC	OAKLAND, MD	BLANK0000080370	172.8
WGTX-TV	D26	DT	LIC	BURLINGTON, NC	BLANK0000081829	264.0
WQAV-CD	D26	DC	LIC	GLASSBORO, NJ	BLANK0000079835	370.5
WPXR-TV	D27	DT	LIC	ROANOKE, VA	BLANK0000081460	170.7

Table 1 WHSV-TV DRT Ch. 25 TVStudy Analysis of Proposal
(page 4 of 4)



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

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
22674.2 808,432	19507.7 682,902	18944.7 670,218	18938.7 668,968	0.03 0.19
Undesired	Total IX	Unique IX, before	Unique IX, after	
WHSV-TV D25 LD APP	21.0 1,268		6.0 1,250	
WBFF D26 DT LIC	483.3 8,948	427.8 7,810	424.8 7,810	
WGPT D26 DT LIC	48.1 335	32.1 166	24.1 148	
WGFX-TV D26 DT LIC	78.9 1,970	40.4 1,224	40.4 1,224	
WPXR-TV D27 DT LIC	8.1 2,569	7.1 2,346	7.1 2,346	

Interference to proposal scenario 1
3.65% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHSV-TV	D25	LD	APP	Broadway, VA	WHSV-TV DRT-3_Ch25	
Undesireds:	WHSV-TV	D24	LD	LIC	Massanutten, VA	BLANK0000122198	41.9 km
	WNUV	D25	DT	LIC	BALTIMORE, MD	BLANK0000136472	192.7
	W42CK	D25+	LD	CP	HAGERSTOWN, MD	BLANK0000054340	120.6
	KDKA-TV	D25	DT	LIC	PITTSBURGH, PA	BLCDT20041004ACS	208.9
	WWBK-LD	D25	LD	LIC	RICHMOND, VA	BLANK0000108657	183.2
	WHTJ	D26	DT	LIC	CHARLOTTESVILLE, VA	BLANK0000112378	101.8

Service area	Terrain-limited	IX-free	Percent IX
6065.2 234,511	3908.3 147,443	3760.5 142,061	3.78 3.65
Undesired	Total IX	Unique IX	Prcnt Unique IX
WHSV-TV D24 LD LIC	44.9 3,331	19.9 1,399	0.51 0.95
WNUV D25 DT LIC	62.9 1,829	41.9 504	1.07 0.34
W42CK D25+ LD CP	40.9 2,888	13.0 272	0.33 0.18
KDKA-TV D25 DT LIC	37.1 313	27.1 313	0.69 0.21
WWBK-LD D25 LD LIC	11.0 299	1.0 0	0.03 0.00
WHTJ D26 DT LIC	2.0 0	0.0 0	0.00 0.00