

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington DC 20554**

In the Matter of)	
)	
Amendment of Section 73.622,)	MB Docket No. _____
Digital Television Table of Allotments)	
For WDTV(DT), Weston, WV)	Rulemaking No. _____
(Facility 70592))	

To: Office of the Secretary, Federal Communications Commission
Attn: Chief, Media Bureau

PETITION FOR RULEMAKING

Gray Television Licensee, LLC (“Gray”), licensee of full power commercial television station WDTV(DT) (“WDTV”), Weston, West Virginia, hereby requests that the Commission institute a rulemaking proceeding for the purpose of amending the DTV Table of Allotments (the “DTV Table”) contained in Section 73.622(i) of the Commission’s rules.¹ Gray requests that the Commission amend the DTV Table to substitute UHF Channel 33 for VHF Channel 5 with the technical parameters as set forth in the attached Engineering Statement. As set forth herein, grant of this Petition will create a preferential arrangement of allotments by expanding the availability of free over-the-air television service in this market.

The FCC has described the goal of the DTV Table as ensuring the provision of digital television service “to the American people in an expeditious and efficient manner.”² In considering channel substitution requests, the Commission considers the

¹ See 47 C.F.R. §§ 1.401, 1.420, 73.622(i).

² See, e.g., *In the Matter of Amendment of Section 73.622(B), Table of Allotments, Digital Television Broadcast Stations (Nampa, Idaho)*, Report and Order, 19 FCC Rcd. 4491, 4493 (2004); *In the Matter of Amendment of Section 73.622(B), Table of Allotments, Digital Television Broadcast Stations (In the Matter of Amendment of Section*

petitioner's public interest justification and whether the proposal would comply with the principal community coverage requirements of Section 73.625(a).³

This channel substitution serves the public interest because it will resolve significant over-the-air ("OTA") reception problems in WDTV's existing service area.⁴ With viewers increasingly reliant on OTA signals to receive the most valued video content,⁵ providing a strong broadcast signal is more important than it has been in decades. Yet, the challenges with digital reception of VHF signals are well-documented. Ten years ago, the Commission recognized the deleterious effects manmade noise has on the reception of VHF signals, finding that "the propagation characteristics of these

73.622(B), *Table of Allotments, Digital Television Broadcast Stations (Albany, New York)*, 19 FCC Rcd. 4279, 4331 (2004); see also *In the Matter of Advanced Television Systems & Their Impact Upon the Existing Television Broadcast Service*, 12 FCC Rcd. 14588 ¶ 76 (1997).

³ See, e.g., *In Re Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Mesa, Arizona)*, Notice of Proposed Rulemaking, MB Docket No. 20-331, RM-11863, DA-20-1192 (rel. Oct. 13, 2020) ("Mesa NPRM"); *In Re Amendment of Section 73.622(b), Table of Allotments, Digital Television Broad. Stations, Ontario, CA*, Notice of Proposed Rulemaking, 16 FCC Rcd. 2276 (2001); *In Re Amendment of Section 73.606(b), Table of Allotments, Television Broad. Stations, Moscow, Idaho*, Notice of Proposed Rulemaking, 17 FCC Rcd. 19447 (2002).

⁴ See *Mesa NPRM* ¶ 6 (recognizing effect of "VHF propagation challenges"); *In Re Amendment of Section 73.622(b), Table of Allotments, Digital Television Broadcast Stations, Missoula, Mt.*, Notice of Proposed Rulemaking, 16 FCC Rcd. 2227 (2001) (finding that proposal to substitute channels to improve signal coverage and eliminate interference "warrants consideration").

⁵ See, e.g., Parks Associates, *TV Antenna Usage in US Broadband Households Jumped to 25% in 2019 and Is Expected to Grow More as COVID-19 Keeps Consumers at Home* (Mar. 26, 2020), <http://www.parksassociates.com/blog/article/pr-02762020> (finding that OTA viewing increased from 15% in 2018 to 25% in 2019); Phil Kurz, *New Research Reveals Resurgence in OTA Antenna Viewing*, TVTechnology (Apr. 29, 2019), available at <https://www.tvtechnology.com/news/new-research-reveals-resurgence-in-ota-antenna-viewing> (finding that viewers consume 19% of viewing time over the air); *The Evolving Over-the-Air Home*, Nielsen Local Watch Report (Jan. 14, 2019), available at <https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/q2-2018-local-watch-report.pdf> (finding that more than 14% of TV households lack cable or satellite service).

channels allow undesired signals and noise to be receivable at relatively farther distances, nearby electrical devices tends to emit noise in this band that can cause interference, and reception of VHF signals requires physically larger antennas ... relative to UHF channels.”⁶ The Commission also observed the “large variability in the performance (especially intrinsic gain) of indoor antennas available to consumers, with most antennas receiving fairly well at UHF and the substantial majority not so well to very poor at high-VHF.”⁷

Attached is an Engineering Statement of Chesapeake RF Consultants, LLC,⁸ which sets forth in detail the proposed WDTV Channel 33 DTV Table specifications. This proposal is in compliance with all relevant technical requirements for amendment of the post-transition DTV Table, including the interference protection requirements of 47 C.F.R. §73.616 and the 0.5% *de minimis* interference standard with respect to all allotments and assignments, existing and proposed. The proposed Channel 33 facilities will provide full principal community coverage to Weston, West Virginia.

As further demonstrated by the attached Engineering Statement, when compared to WDTV’s existing Channel 5 DTV allotment, the proposed Channel 33 facilities will create only a *de minimis* loss area; with the primary loss area served by another CBS station or at least five other services. In evaluating the loss area, Gray first considered whether loss areas were served by another CBS affiliate. The CBS affiliates from

⁶ See *Matter of Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF*, Notice of Proposed Rulemaking, 25 FCC Rcd. 16498 ¶ 42 (2010) (recognizing that “VHF channels have certain characteristics that have posed challenges for their use in providing digital television service.”)

⁷ *Id.* ¶ 44.

⁸ See Exhibit 1 (“Engineering Statement”).

Pittsburgh, PA, Wheeling, WV, Parkersburg, WV, Huntington, WV and Harrisonburg, VA all overlap a portion of the loss area.⁹ Next, Gray evaluated whether the remaining loss area was served by at least five other authorized television services. In conducting this determination, Gray took into account full power television, Class A, low power television and established television translator services.¹⁰ The remaining loss area included only 2,037 persons (or .21 percent of the total population within the Channel 5 contour). And, when the proposed Channel 33 facility is analyzed using the terrain-limited coverage predictions, the loss population is revealed to be that of just 232 persons.¹¹ Both the standard and terrain-limited contour predictions almost certainly overstate the actual loss area given the specific VHF propagation challenges WDTV faces. In practice, Gray expects few if any persons who are currently able to receive WDTV's OTA signal on Channel 5 would no longer be able to receive WDTV's OTA signal as a result of the transition to Channel 33.

⁹ The Commission considers "the availability of other television services in the loss area as well as whether the population which would lose service is outside the station's DMA and is predicted to receive the same network programming from a station in their home DMA"). *Supra* note 6 at ¶ 27. The CBS affiliate for Parkersburg, WV is WIYE-LD, a commonly owned Gray station. Although a low power television station, WIYE-LD has served as the CBS affiliate for this market since 2012, and recently was repacked with new equipment on Channel 26. Gray also owns the CBS affiliate for the Harrisonburg, Virginia DMA, which is broadcast on a digital subchannel for WHSV-TV.

¹⁰ When evaluating loss areas, "evidence of a pre-existing translator service might be shown as an off-the-air alternative both available and utilized in [the] projected loss area." *In Re Application of Elab Dev. Corp. (KQTV-TV) St. Joseph, Missouri for A Constr. Permit for A Major Change*, Review, 96 F.C.C.2d 376, 386–88 (Rev. Bd. 1984). The two television translator stations included in Gray's analysis are owned and operated by the West Virginia Educational Broadcasting Authority, the governing body of West Virginia Public Broadcasting. One station has been in operation since 2008, the other since 2009. These are long-established stations operated by an entity with a vested interest in ensuring ongoing programming is available to local residents.

¹¹ See *WSET, Inc.*, 80 FCC 2d 233, 246 (1980) (finding loss area of population of 500 *de minimis*).

For the foregoing reasons, Gray respectfully requests that the Commission grant this Petition and immediately commence a rulemaking proceeding to change the digital allotment for WDTV from Channel 5 to Channel 33 as proposed herein.

Respectfully submitted,

GRAY TELEVISION LICENSEE, LLC

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Dated: March 19, 2021

Exhibit 1

Engineering Statement
prepared for
Gray Television Licensee, LLC
WDTV(DT) Weston, WV
Facility ID 70592
Ch. 33 935 kW 228 m

This engineering statement has been prepared on behalf of *Gray Television Licensee, LLC* (“Gray”), licensee of WDTV (Facility ID 70592, Weston WV) in support of a *Petition for Rulemaking* to amend §73.622(i)¹ by changing WDTV’s digital television channel assignment. WDTV is licensed to operate on Channel 5 (BLCDT-20090612AJX). As described herein, *Gray* requests substitution of Channel 33 in lieu of Channel 5 for WDTV.

The WDTV Channel 5 facility is in the Low-Band portion of the VHF spectrum and has proven to be ineffective for satisfactory viewer reception as discussed herein and elsewhere in the petition. The use of Channel 33 would place WDTV in the UHF spectrum which is known to provide robust signal levels for home reception.

Since the digital transition in 2009, many viewers have experienced significant difficulty in receiving WDTV’s signal. Problems with digital Low-Band VHF reception by stations in many markets were widely publicized since the 2009 digital transition date. It has been established that indoor reception is difficult for digital Low-Band VHF stations such as WDTV due to the longer wavelength signal’s inability to readily pass through buildings (the windows are smaller than the wavelength size), the ineffectiveness of many indoor antennas many of which were designed to emphasize the shorter wavelengths for UHF reception, and high levels of manmade and environmental noise.

¹The post-incentive auction transition period ended on July 13, 2020, pursuant to the *Incentive Auction Closing and Channel Reassignment Public Notice* (DA 17-317, released April 13, 2017). The FCC’s rules have not yet been amended to reflect all new full power channel assignments in a revised Table of Allotments. Because the Table has not yet been amended, it is understood that FCC’s Media Bureau will continue to refer to the Post-Transition Table of DTV Allotments, 47 CFR § 73.622(i) (2018), for the purpose of post-auction channel change rulemaking proceedings.

No change in transmitting location is proposed. The WDTV tower structure corresponds to FCC Antenna Structure Registration (“ASR”) number 1034466 and is shared with *Gray’s* station WVFX (Facility ID 10976, Clarksburg WV). WVFX was reassigned from Channel 10 to Channel 13 as specified in the *Incentive Auction Closing and Channel Reassignment Public Notice* (DA 17-317, released April 13, 2017). WVFX is currently operating on Channel 13 with an interim facility (see STA file# 0000129895 as extended).

The shared WDTV/WVFX tower will be replaced in order to fully implement the WVFX reassignment Channel 13 facility (see WVFX tolling file# 0000138023). The replacement tower will be built at the existing WDTV/WVFX site location. The replacement WDTV/WVFX tower is designed to support a side-mounted antenna for WDTV. With the necessity to also acquire a new transmitting antenna for WDTV as forced by the tower’s replacement, *Gray* seeks to substitute Channel 33 for WDTV in lieu of Channel 5.

WDTV is licensed to operate on Channel 5 with 10 kW effective radiated power (“ERP”) nondirectional at 240 meters antenna height above average terrain (“HAAT”). *Gray* proposes herein to utilize 935 kW ERP directional on Channel 33 at 228 meters antenna HAAT. A summary of the licensed Channel 5 and proposed Channel 33 technical parameters is provided in the following.

Licensed Channel 5 Parameters (file# BLCDT-20090612AJX)

FacID	Call	Ch	City	St	Lat	Lon	RCAMSL	HAAT	ERP	DA
70592	WDTV	5	WESTON	WV	391802	802036	601.5	240	10	ND

Proposed Channel 33 Parameters

FacID	Call	Ch	City	St	Lat	Lon	RCAMSL	HAAT	ERP	DA
70592	WDTV	33	WESTON	WV	391802	802036	587.4	228.1	935	DA

The proposed directional antenna azimuthal pattern is plotted in Figure 1. A map is supplied as Figure 2, which depicts the standard predicted coverage contours. As demonstrated thereon, the proposed facility complies with §73.625(a)(1) as the entire community of Weston will be encompassed by the 48 dBμ contour.

Interference study per FCC OET Bulletin 69² 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 1.0 km cell size and 0.1 km terrain profile increment. The interference study output report is provided as Table 1.

Figure 3 provides a coverage contour comparison and shows that the proposed Channel 33 noise limited service contour (“NLSC”) will fall short of matching that of the licensed Channel 5 facility. On Channel 33, the best available UHF channel at Weston, the directional pattern is necessary to avoid causing impermissible interference to WFMJ-TV (Ch. 33, Fac ID 72062, Youngstown OH) and WNPB-TV (Ch. 34, Fac ID 71676, Morgantown WV). The corresponding maximum ERP is 935 kW on Channel 33 to comply with the *de minimis* interference limit with the proposed directional pattern.

Figure 3 depicts the proposed WDTV Channel 33 resulting NLSC loss areas along with the NLSC of overlapping alternative authorized television services. The stations providing the alternative services are listed in Table 2. Most of the loss area is within the coverage contour of another station of the same network affiliation (CBS). The areas tinted green on Figure 3 denote WDTV NLSC loss areas that are within one or more overlapping contours from other nearby CBS network affiliate stations. The protected contour of *Gray’s* Low Power Television station WIYE-LD (Fac ID 130392, Parkersburg WV), a CBS network affiliate, also provides overlapping CBS service to a portion of the loss area and is included on the map.

Of the WDTV NLSC loss areas that are not within another CBS affiliate contour, the areas on Figure 3 that are tinted yellow represent locations where there are less than 5 other TV services remaining in those loss areas. For this analysis, the protected contours of two television translator stations are included (W16DT-D Fac ID 167356, Keyser WV and W21DZ-D Fac ID 167358,

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 0.1 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.

Romney WV), as those stations have been licensed as digital³ since 2009 as companions to analog translators that were licensed⁴ prior to 1980. A summary of the number of alternative services for the loss area is provided on the map and in the following table.

Loss Area Analysis – Standard FCC Contours

WDTV Population Within NLSC	(2010 census)
Licensed Ch. 5 Total:	959,448
Proposed Ch. 33 Total:	571,225
Gain Area Population:	0
Loss Area Population:	388,223
Common Area Population:	571,225
Number of Other Services	<u>Loss Pop</u>
0	0
1	0
2	0
3	0
4	2,037
5 or more, or within CBS affil.	386,186
Total Change	388,223
Total less than 5 services	2,037
Total less than 5 (percentage)	0.21%

The licensed Channel 5 facility's NLSC encompasses 959,448 persons and the proposed Channel 33 facility's NLSC would encompass 571,225 persons. The resulting NLSC loss population is 388,223 persons, of which only 2,037 persons would be beyond the contour of another CBS station and have less than five other services. This represents 0.21 percent of the total population within the licensed WDTV Channel 5 NLSC. Most of the NLSC loss area population (386,186 persons) is either within the contour of another CBS affiliate station or well-served, having 5 or more other TV services.

The proposed Channel 33 facility would continue to provide NLSC coverage to considerable areas that are not well-served. As shown in the following table over 34 percent of the proposed WDTV Channel 33 NLSC population is in areas that have four or fewer other services, involving 198,675 persons.

³See BLDTT-20081020ANH and BLDTT-20090609AAZ.

⁴See BLTT-1615 (W48AA, underlying companion of W16DT-D) and BLTT-1616 (W69AC, underlying companion of W23DZ-D).

Service Count Population Report			
Proposed WDTV Ch. 33 NLSC			
Within NLSC	Population	Area (sq. km)	
-----	-----	-----	
0 Other Service	0	0.00	
1 Other Service	0	0.00	
2 Other Service	15,431	1748.85	
3 Other Service	64,390	3114.84	
4 Other Service	118,854	4473.52	
5 or more Other Service	372,550	12852.96	
Total NLSC	571,225	22190.17	
	Population	Running Total	Percent
0 Other Service	0	0	0.0 %
1 Other Service	0	0	0.0 %
2 Other Service	15,431	15,431	2.7 %
3 Other Service	64,390	79,821	14.0 %
4 Other Service	118,854	198,675	34.8 %
5 or more Other Service	372,550	571,225	100.0 %

The results of additional loss area analysis are provided in Figure 4, now to consider terrain-limited coverage predictions of the licensed Channel 5 facility and the proposed Channel 33 operation. Here, the FCC's TVStudy computer program was used to determine terrain-limited coverage predictions at locations beyond the proposed Channel 33 NLSC. The study area was set using the "fixed geography" option to match the WDTV licensed Channel 5 NLSC. Study cell size of 1.0 km and terrain profile step increment of 0.1 km were employed, consistent with the interference analysis for the proposal. The analysis included examination of each cell that is located beyond the Channel 33 NLSC and beyond the contour of another CBS affiliate station or beyond well-served areas, having 5 or more other TV services (the same, yellow-tinted area as Figure 3) as bounded by the existing Channel 5 facility's NLSC. The results regarding the number of alternative services for the loss areas are provided on Figure 4 and in the following table.

Loss Area Analysis – Terrain-Limited

WDTV Terrain-Limited Population	
TVStudy at Fixed Geography Area	(2010 census)
Licensed Ch. 5 Total	889,609
Number of Other NLSC Services	<u>Loss Pop</u>
0	0
1	0
2	0
3	0
4	232
5 or more, or within CBS affil.	69,006
Total Loss	69,238
Total less than 5 services	232
Total less than 5 (percentage)	0.03%

This analysis shows that the terrain-limited loss population beyond the proposed Channel 33 NLSC is 232 persons of the WDTV licensed digital Channel 5 facility. Here, the count of other services where terrain-limited service is lost provides the number of other stations that provide NLSC coverage to each cell. The terrain-limited service loss to 232 persons is located within the existing Channel 5 facility's NLSC, beyond the Channel 33 NLSC, and beyond the contour of another CBS affiliate station or beyond well-served areas, having 5 or more other TV services (the yellow tinted area on Figure 4). Thus, the terrain-limited analysis shows that, except for 232 persons, all of the proposed Channel 33 facility's loss population (69,238 persons) would be within the coverage contour of another CBS station or have five or more other services.

Conclusion

The proposed channel substitution complies with the FCC's principal community coverage requirements of §73.625 and the interference protection requirements of §73.616.

List of Attachments

Figure 1	Antenna Azimuthal Pattern
Figure 2	Proposed Coverage Contours
Figure 3	Coverage Contour Comparison; Loss Area Analysis – Standard FCC Contours
Figure 4	Loss Area Analysis – Terrain-Limited Method
Table 1	TVStudy Analysis of Proposal
Table 2	Overlapping Authorized Alternate Television Services

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E.	March 16, 2021	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600

Azimuth Pattern

Type:	ATW-WC	Polarization:	Horizontal
Directivity:	1.40 numeric (1.46 dB)	Frequency:	33 (ATSC)
Peak(s) at:		Location:	Clarksburg, WV
		NOTE: Pattern shape and directivity may vary with channel and mounting configuration.	

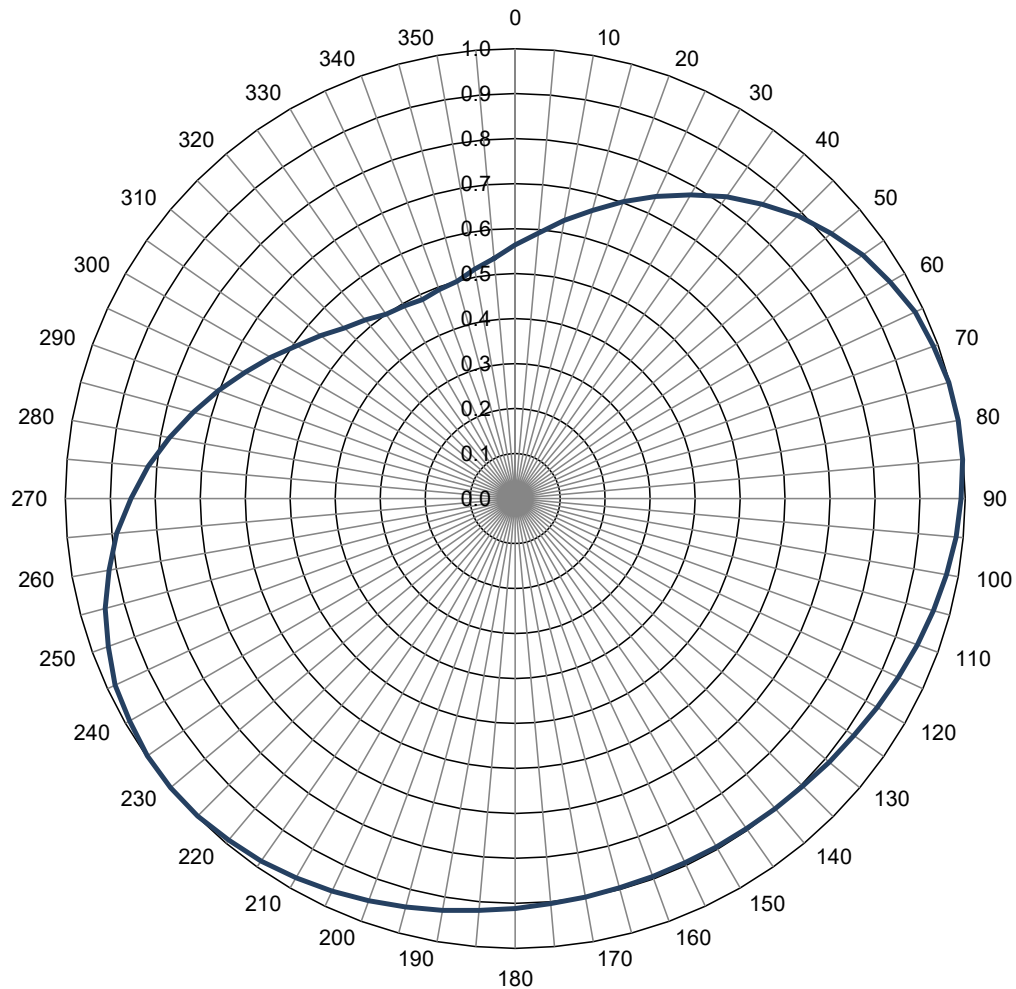
Relative Field

Figure 1
Antenna Azimuthal Pattern
WDTV(DT) Weston, WV
Facility ID 70592
Ch. 33 935 kW 228 m

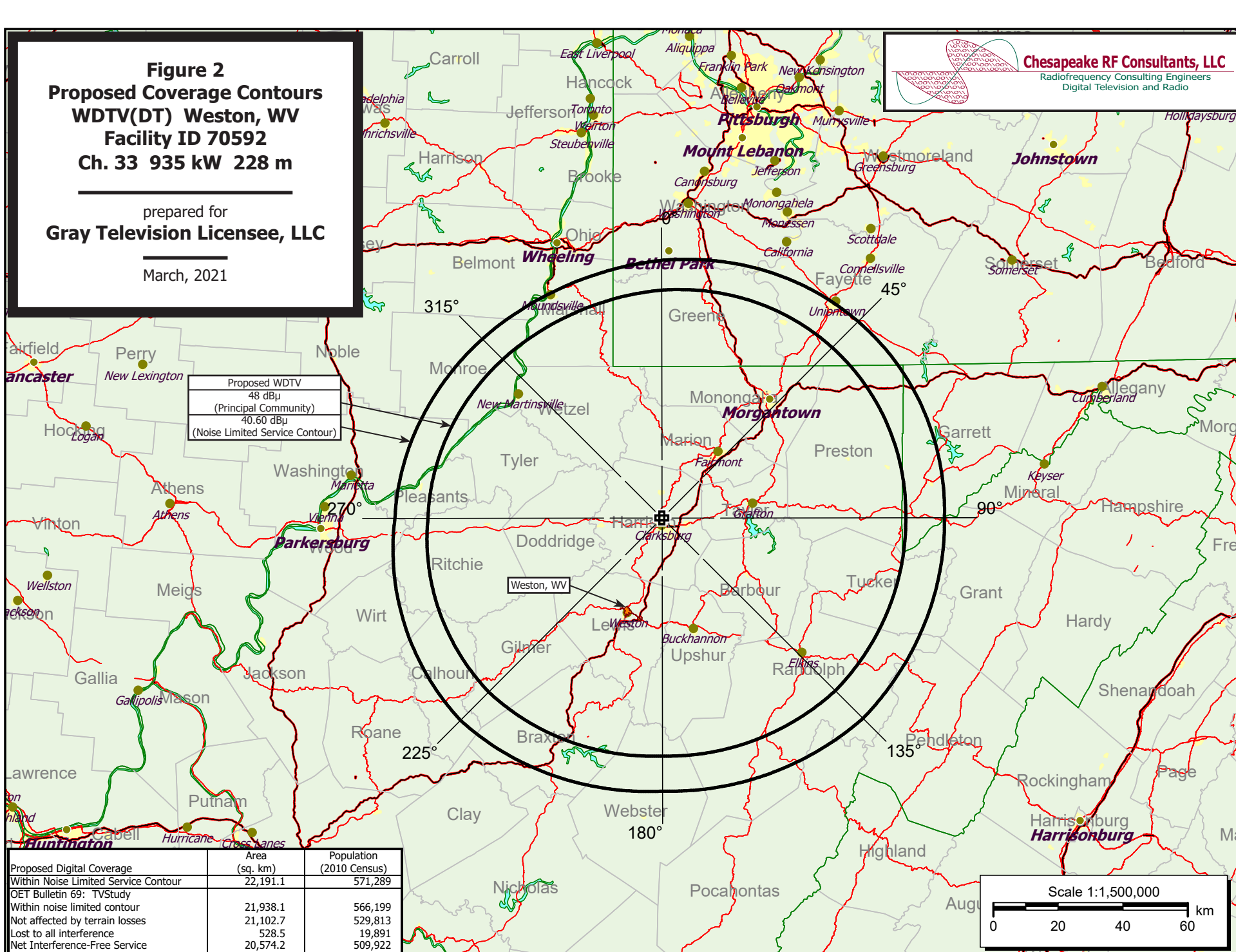
prepared for
Gray Television Licensee, LLC

March, 2021

Figure 2
Proposed Coverage Contours
WDTV(DT) Weston, WV
Facility ID 70592
Ch. 33 935 kW 228 m

prepared for
Gray Television Licensee, LLC

March, 2021



prepared for
Gray Television Licensee, LLC

March, 2021

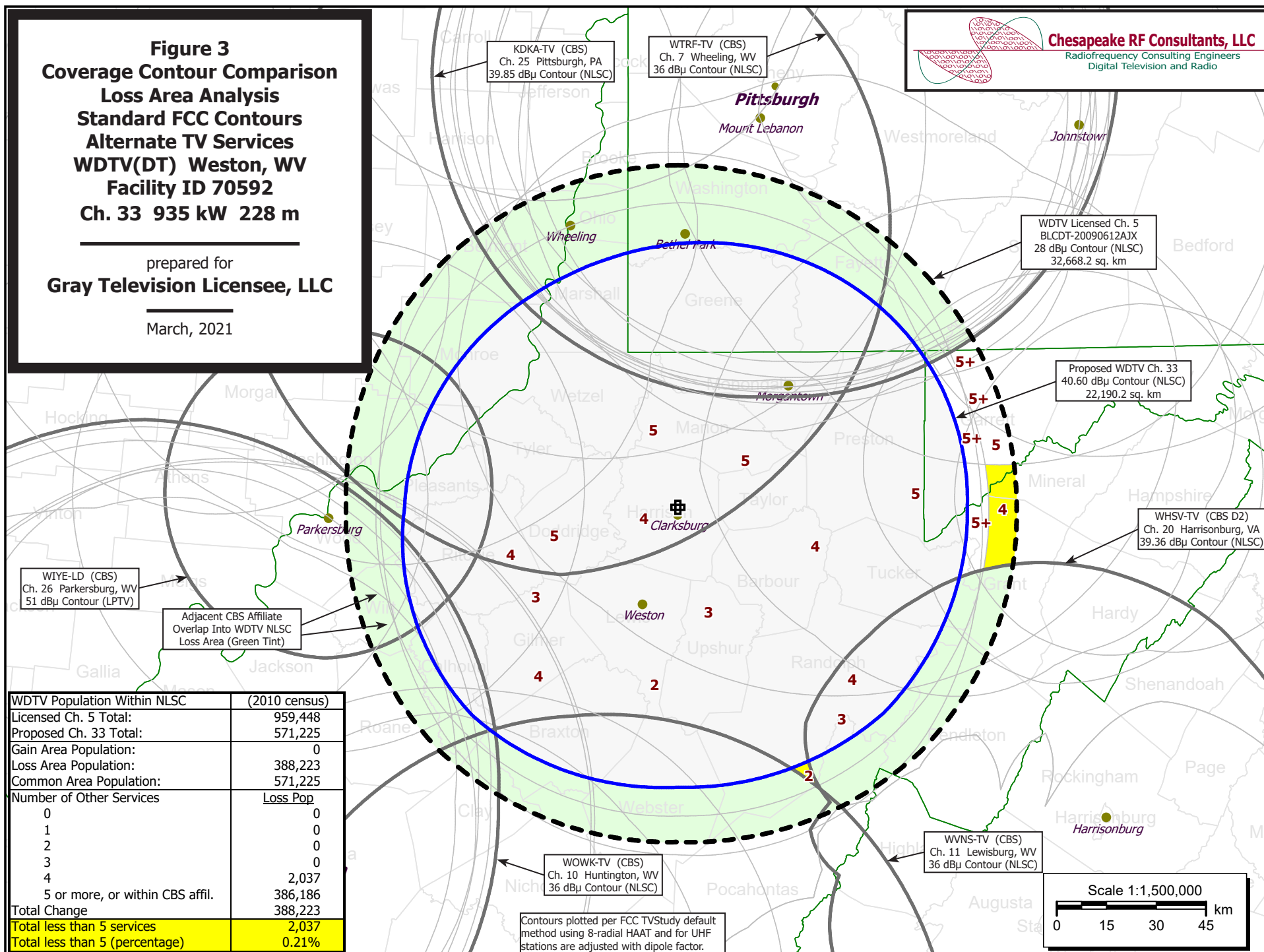


Figure 4
Loss Area Analysis
Terrain-Limited Method
WDTV(DT) Weston, WV
Facility ID 70592
Ch. 33 935 kW 228 m

prepared for
Gray Television Licensee, LLC

March, 2021

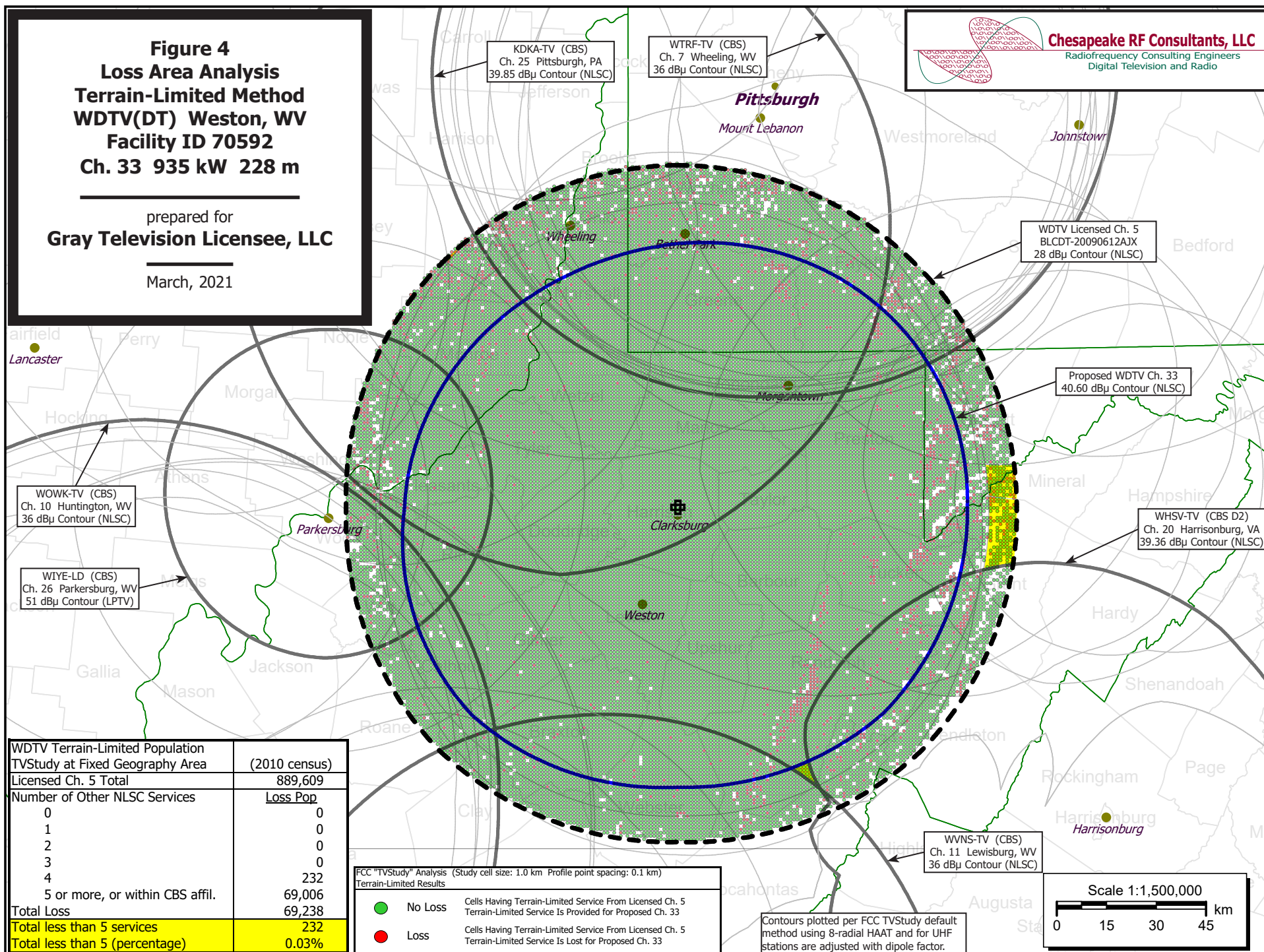


Table 1 WDTV TVStudy Analysis of Proposal (page 1 of 7)



tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: WDTV Ch-33 WC 935kW prop 1.0-0.1, Model: Longley-Rice
Start: 2021.03.15 09:58:22

Study created: 2021.03.15 09:58:22

Study build station data: LMS TV 2021-03-15

Proposal: WDTV D33 DT APP WESTON, WV
File number: WDTV Ch-33 WC 935kW
Facility ID: 70592
Station data: User record
Record ID: 3507
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	WOUB-TV	D32	DT	LIC	ATHENS, OH	BLANK0000068360	155.4 km
No	WMVH-CD	D32	DC	LIC	CHARLEROI, PA	BLANK0000079929	99.1
No	WMVH-CD	D32	DC	CP	CHARLEROI, PA	BLANK00000127551	99.1
No	WKHU-CD	D32	DC	LIC	KITTANNING, PA	BLANK0000079958	179.1
No	WKHU-CD	D32	DC	CP	KITTANNING, PA	BLANK00000127549	179.1
No	WCAV	D32	DT	LIC	CHARLOTTESVILLE, VA	BLANK0000092578	218.0
Yes	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	284.1
Yes	WHUT-TV	D33	DT	LIC	WASHINGTON, DC	BLEDT20071018AIJ	284.1
Yes	WKHA	D33	DT	LIC	HAZARD, KY	BLANK0000075043	341.3
Yes	WUNL-TV	D33	DT	LIC	WINSTON-SALEM, NC	BLANK00000121301	325.1
No	WGRZ	D33	DT	LIC	BUFFALO, NY	BLANK00000137137	408.2
Yes	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	338.2
Yes	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	199.4
No	WPSG	D33	DT	LIC	PHILADELPHIA, PA	BLANK00000129342	444.1
No	WQFX-TV	D33	DT	LIC	SCRANTON, PA	BLANK0000080158	457.3
No	WTVZ-TV	D33	DT	CP	NORFOLK, VA	BLANK00000117232	435.4
No	WTVZ-TV	D33	DT	LIC	NORFOLK, VA	BLANK00000125150	435.4
No	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	234.0
Yes	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK00000106559	66.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D33
Latitude: 39 18 2.00 N (NAD83)
Longitude: 80 20 36.00 W
Height AMSL: 587.4 m
HAAT: 228.1 m
Peak ERP: 935 kW
Antenna: ERI ATW-WC 155.0 deg
Elev Pattn: Generic
Elec Tilt: 0.50

40.6 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	298 kW	238.4 m	79.6 km
45.0	737	230.9	84.8
90.0	919	226.5	86.2
135.0	766	243.2	86.5
180.0	779	214.2	83.6
225.0	931	233.5	87.1
270.0	680	207.1	82.1
315.0	270	231.4	78.6

Proposal 25.60 dBu contour does not cross Canadian border
Distance to Canadian border: 316.0 km

Table 1 WDTV TVStudy Analysis of Proposal
(page 2 of 7)



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

Study cell size: 1.00 km
Profile point spacing: 0.10 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Interference to BLANK0000035679 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	284.1 km
	WPSG	D33	DT	LIC	PHILADELPHIA, PA	BLANK0000129342	198.9
	WTVZ-TV	D33	DT	CP	NORFOLK, VA	BLANK0000117232	243.3
	WRC-TV	D34	DT	LIC	WASHINGTON, DC	BLANK0000079826	1.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
22110.4	7,952,596	21446.2	7,905,549	20886.2	7,867,757	20878.2 7,866,659	0.04 0.01
Undesired		Total IX		Unique IX, before		Unique IX, after	
WDTV D33 DT APP		10.9	1,098			7.9 1,098	
WPSG D33 DT LIC		381.3	30,654	329.1	23,292	327.1 23,292	
WTVZ-TV D33 DT CP		224.9	14,407	172.7	7,045	171.7 7,045	
WRC-TV D34 DT LIC		6.0	93	6.0	93	6.0 93	

Interference to BLANK0000035679 CP scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	284.1 km
	WPSG	D33	DT	LIC	PHILADELPHIA, PA	BLANK0000129342	198.9
	WTVZ-TV	D33	DT	LIC	NORFOLK, VA	BLANK0000125150	243.3
	WRC-TV	D34	DT	LIC	WASHINGTON, DC	BLANK0000079826	1.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
22110.4	7,952,596	21446.2	7,905,549	20889.1	7,867,824	20881.2 7,866,726	0.04 0.01
Undesired		Total IX		Unique IX, before		Unique IX, after	
WDTV D33 DT APP		10.9	1,098			7.9 1,098	
WPSG D33 DT LIC		381.3	30,654	331.1	23,306	329.1 23,306	
WTVZ-TV D33 DT LIC		219.9	14,326	169.7	6,978	168.7 6,978	
WRC-TV D34 DT LIC		6.0	93	6.0	93	6.0 93	

Interference to BLEDT20071018AIJ LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHUT-TV	D33	DT	LIC	WASHINGTON, DC	BLEDT20071018AIJ	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	284.1 km
	WPSG	D33	DT	LIC	PHILADELPHIA, PA	BLANK0000129342	198.9
	WTVZ-TV	D33	DT	CP	NORFOLK, VA	BLANK0000117232	243.3
	WRC-TV	D34	DT	LIC	WASHINGTON, DC	BLANK0000079826	1.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
17877.2	7,654,305	17519.9	7,622,839	17063.5	7,570,898	17061.5 7,570,894	0.01 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	

Table 1 WDTV TVStudy Analysis of Proposal
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WDTV D33 DT APP	2.0	4			2.0	4
WPSG D33 DT LIC	345.4	40,939	305.4	38,936	305.4	38,936
WTVZ-TV D33 DT CP	123.0	7,898	86.1	6,034	86.1	6,034
WRC-TV D34 DT LIC	28.0	5,107	25.0	4,968	25.0	4,968

Interference to BLEDT20071018AIJ LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHUT-TV	D33	DT	LIC	WASHINGTON, DC	BLEDT20071018AIJ	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	284.1 km
	WPSG	D33	DT	LIC	PHILADELPHIA, PA	BLANK0000129342	198.9
	WTVZ-TV	D33	DT	LIC	NORFOLK, VA	BLANK0000125150	243.3
	WRC-TV	D34	DT	LIC	WASHINGTON, DC	BLANK0000079826	1.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
17877.2 7,654,305		17519.9 7,622,839		17068.5 7,571,306		17066.5 7,571,302	0.01 0.00
Undesired			Total IX	Unique IX, before		Unique IX, after	
WDTV D33 DT APP			2.0 4			2.0 4	
WPSG D33 DT LIC			345.4 40,939	306.4 39,343		306.4 39,343	
WTVZ-TV D33 DT LIC			117.0 7,083	81.0 5,626		81.0 5,626	
WRC-TV D34 DT LIC			28.0 5,107	25.0 4,968		25.0 4,968	

Interference to BLANK0000075043 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WKHA	D33	DT	LIC	HAZARD, KY	BLANK0000075043	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	341.3 km
	WKPT-TV	D32	DT	LIC	KINGSPORT, TN	BLANK0000070485	126.1
	WTIU	D33	DT	LIC	BLOOMINGTON, IN	BLANK0000087599	361.1
	WUNL-TV	D33	DT	LIC	WINSTON-SALEM, NC	BLANK0000121301	266.7
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	297.1
	WPDP-CD	D33-	DC	LIC	CLEVELAND, TN	BLANK0000081661	262.5
	WPGD-TV	D33	DT	LIC	HENDERSONVILLE, TN	BMLCDT20131125BGF	337.4
	WVLT-TV	D34	DT	LIC	KNOXVILLE, TN	BLANK0000081956	149.7
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
21355.9 509,383		19652.4 443,880		19580.2 442,018		19578.2 441,947	0.01 0.02
Undesired			Total IX	Unique IX, before		Unique IX, after	
WDTV D33 DT APP			2.0 71			2.0 71	
WKPT-TV D32 DT LIC			21.0 107	18.0 107		18.0 107	
WTIU D33 DT LIC			1.0 0	1.0 0		1.0 0	
WUNL-TV D33 DT LIC			15.0 293	12.0 293		12.0 293	
WHIO-TV D33 DT LIC			13.1 157	13.1 157		13.1 157	
WPDP-CD D33- DC LIC			2.0 0	1.0 0		1.0 0	
WPGD-TV D33 DT LIC			20.0 1,305	20.0 1,305		20.0 1,305	
WVLT-TV D34 DT LIC			4.0 0	3.0 0		3.0 0	

Interference to BLANK0000121301 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WUNL-TV	D33	DT	LIC	WINSTON-SALEM, NC	BLANK0000121301	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	325.1 km
	WAXN-TV	D32	DT	LIC	KANNAPOLIS, NC	BLANK0000081193	127.9
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	407.1
	WTNG-CD	D33	DC	LIC	LUMBERTON-PEMBROKE, NC	BLANK0000081109	218.4
	WRLK-TV	D33	DT	LIC	COLUMBIA, SC	BLANK0000111852	256.0
	WTVZ-TV	D33	DT	CP	NORFOLK, VA	BLANK0000117232	348.5
	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	93.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
39002.8 3,045,855		36564.6 2,844,406		35816.8 2,807,963		35816.8 2,807,963	0.00 0.00
Undesired			Total IX	Unique IX, before		Unique IX, after	
WDTV D33 DT APP			1.0 0			0.0 0	
WAXN-TV D32 DT LIC			41.8 9,990	19.9 5,478		19.9 5,478	

Table 1 WDTV TVStudy Analysis of Proposal
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WTNG-CD D33 DC LIC	33.8	1,154	11.9	245	11.9	245
WRLK-TV D33 DT LIC	163.5	15,314	124.7	10,305	124.7	10,305
WTVZ-TV D33 DT CP	72.2	2,631	67.2	2,615	67.2	2,615
WSLS-TV D34 DT LIC	483.4	12,585	479.4	12,569	478.4	12,569

Interference to BLANK0000121301 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WUNL-TV	D33	DT	LIC	WINSTON-SALEM, NC	BLANK0000121301	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	325.1 km
	WAXN-TV	D32	DT	LIC	KANNAPOLIS, NC	BLANK0000081193	127.9
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	407.1
	WTNG-CD	D33	DC	LIC	LUMBERTON-PEMBROKE, NC	BLANK0000081109	218.4
	WRLK-TV	D33	DT	LIC	COLUMBIA, SC	BLANK0000111852	256.0
	WTVZ-TV	D33	DT	LIC	NORFOLK, VA	BLANK0000125150	348.5
	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	93.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
39002.8 3,045,855		36564.6 2,844,406		35817.8 2,808,122		35817.8 2,808,122	0.00 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
WDTV D33 DT APP		1.0		0		0.0 0	
WAXN-TV D32 DT LIC		41.8		9,990	19.9 5,478	19.9 5,478	
WTNG-CD D33 DC LIC		33.8		1,154	11.9 245	11.9 245	
WRLK-TV D33 DT LIC		163.5		15,314	124.7 10,305	124.7 10,305	
WTVZ-TV D33 DT LIC		70.2		2,458	66.2 2,456	66.2 2,456	
WSLS-TV D34 DT LIC		483.4		12,585	480.4 12,583	479.4 12,583	

Interference to BLANK0000087475 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	338.2 km
	WTIU	D33	DT	LIC	BLOOMINGTON, IN	BLANK0000087599	203.8
	WKHA	D33	DT	LIC	HAZARD, KY	BLANK0000075043	297.1
	WKAR-TV	D33	DT	LIC	EAST LANSING, MI	BLANK0000054990	330.2
	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	340.0
	WKEF	D34	DT	LIC	DAYTON, OH	BLANK0000113880	1.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
32193.2 3,882,627		31835.8 3,864,453		30975.1 3,806,379		30969.1 3,806,281	0.02 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
WDTV D33 DT APP		35.8		10,936	5.9 98	5.9 98	
WTIU D33 DT LIC		710.7		29,990	622.0 29,228	621.0 29,228	
WKHA D33 DT LIC		11.0		713	9.0 713	9.0 713	
WKAR-TV D33 DT LIC		48.9		425	5.0 43	5.0 43	
WFMJ-TV D33 DT LIC		214.8		27,953	132.0 27,249	115.0 16,519	
WKEF D34 DT LIC		3.0		67	0.0 0	0.0 0	

Interference to BLANK0000089155 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	199.4 km
	WMVH-CD	D32	DC	LIC	CHARLEROI, PA	BLANK0000079929	123.5
	WKHU-CD	D32	DC	LIC	KITTANNING, PA	BLANK0000079958	98.3
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	384.5
	WGRZ	D33	DT	LIC	BUFFALO, NY	BLANK0000137137	250.4
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	340.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
27701.9 4,319,279		26590.4 3,794,358		26063.0 3,701,060		25967.2 3,682,919	0.37 0.49
Undesired		Total IX		Unique IX, before		Unique IX, after	
WDTV D33 DT APP		256.9		57,090	95.8 18,141	95.8 18,141	
WGRZ D33 DT LIC		497.5		77,429	497.5 77,429	355.3 52,796	

Table 1 WDTV TVStudy Analysis of Proposal
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WHIO-TV D33 DT LIC	29.9	15,869	29.9	15,869	11.0	1,553
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Interference to BLANK0000089155 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	199.4 km
	WMVH-CD	D32	DC	LIC	CHARLEROI, PA	BLANK0000079929	123.5
	WKHU-CD	D32	DC	CP	KITTANNING, PA	BLANK00000127549	98.3
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	384.5
	WGRZ	D33	DT	LIC	BUFFALO, NY	BLANK00000137137	250.4
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	340.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
27701.9 4,319,279		26590.4 3,794,358		26057.1 3,700,911		25965.2 3,682,874	0.35 0.49
Undesired			Total IX		Unique IX, before		Unique IX, after
WDTV D33 DT APP			256.9 57,090				91.9 18,037
WKHU-CD D32 DC CP			6.0 149		6.0 149		2.0 45
WGRZ D33 DT LIC			497.5 77,429		497.5 77,429		355.3 52,796
WHIO-TV D33 DT LIC			29.9 15,869		29.9 15,869		11.0 1,553

Interference to BLANK0000106559 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	66.4 km
	WRC-TV	D34	DT	LIC	WASHINGTON, DC	BLANK0000079826	245.3
	WKBW-TV	D34	DT	LIC	BUFFALO, NY	BLANK00000134785	340.6
	WKEF	D34	DT	LIC	DAYTON, OH	BLANK00000113880	384.1
	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	279.3
	WJAC-TV	D35	DT	LIC	JOHNSTOWN, PA	BLANK0000080232	100.2
	WTAP-TV	D35	DT	LIC	PARKERSBURG, WV	BLANK00000105709	159.3
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
30668.0 2,131,890		28596.4 1,992,239		28333.8 1,981,462		28192.7 1,971,649	0.50 0.50
Undesired			Total IX		Unique IX, before		Unique IX, after
WDTV D33 DT APP			141.1 9,813				141.1 9,813
WRC-TV D34 DT LIC			85.0 580		65.0 321		65.0 321
WKBW-TV D34 DT LIC			11.0 967		5.0 924		5.0 924
WKEF D34 DT LIC			2.0 1		2.0 1		2.0 1
WSLS-TV D34 DT LIC			8.9 21		7.0 21		7.0 21
WJAC-TV D35 DT LIC			180.7 9,510		160.6 9,208		160.6 9,208
WTAP-TV D35 DT LIC			1.0 0		1.0 0		1.0 0

Interference to proposal scenario 1
3.75% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	
Undesireds:	WOUB-TV	D32	DT	LIC	ATHENS, OH	BLANK0000068360	155.4 km
	WMVH-CD	D32	DC	LIC	CHARLEROI, PA	BLANK0000079929	99.1
	WKHU-CD	D32	DC	LIC	KITTANNING, PA	BLANK0000079958	179.1
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	284.1
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	338.2
	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	199.4
	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	66.4
Service area		Terrain-limited		IX-free		Percent IX	
21938.1 566,199		21102.7 529,813		20574.2 509,922		2.50 3.75	
Undesired			Total IX		Unique IX		Prcnt Unique IX
WOUB-TV D32 DT LIC			1.0 0		1.0 0		0.00 0.00
WMVH-CD D32 DC LIC			2.0 0		0.0 0		0.00 0.00
WHUT-TV D33 DT CP			4.9 6		2.0 0		0.01 0.00
WHIO-TV D33 DT LIC			8.0 90		3.0 20		0.01 0.00

Table 1 WDTV TVStudy Analysis of Proposal
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WFMJ-TV D33 DT LIC	186.8	3,904	139.8	2,644	0.66	0.50
WNPB-TV D34 DT LIC	375.8	17,157	334.7	15,967	1.59	3.01

Interference to proposal scenario 2
3.75% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	
Undesireds:	WOUB-TV	D32	DT	LIC	ATHENS, OH	BLANK0000068360	155.4 km
	WMVH-CD	D32	DC	CP	CHARLEROI, PA	BLANK0000127551	99.1
	WKHU-CD	D32	DC	LIC	KITTANNING, PA	BLANK0000079958	179.1
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	284.1
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	338.2
	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	199.4
	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	66.4

	Service area	Terrain-limited			IX-free	Percent IX	
	21938.1	566,199	21102.7	529,813	20574.2	509,922	2.50 3.75

Undesired				Total IX	Unique IX	Prcnt Unique IX	
WOUB-TV D32 DT LIC		1.0		0	1.0	0	0.00 0.00
WMVH-CD D32 DC CP		4.0		157	0.0	0	0.00 0.00
WHUT-TV D33 DT CP		4.9		6	2.0	0	0.01 0.00
WHIO-TV D33 DT LIC		8.0		90	3.0	20	0.01 0.00
WFMJ-TV D33 DT LIC		186.8		3,904	139.8	2,644	0.66 0.50
WNPB-TV D34 DT LIC		375.8		17,157	333.7	15,810	1.58 2.98

Interference to proposal scenario 3
3.75% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	
Undesireds:	WOUB-TV	D32	DT	LIC	ATHENS, OH	BLANK0000068360	155.4 km
	WMVH-CD	D32	DC	LIC	CHARLEROI, PA	BLANK0000079929	99.1
	WKHU-CD	D32	DC	LIC	KITTANNING, PA	BLANK0000079958	179.1
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	338.2
	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	199.4
	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	66.4

	Service area	Terrain-limited			IX-free	Percent IX	
	21938.1	566,199	21102.7	529,813	20576.2	509,922	2.50 3.75

Undesired				Total IX	Unique IX	Prcnt Unique IX	
WOUB-TV D32 DT LIC		1.0		0	1.0	0	0.00 0.00
WMVH-CD D32 DC LIC		2.0		0	0.0	0	0.00 0.00
WHIO-TV D33 DT LIC		8.0		90	3.0	20	0.01 0.00
WFMJ-TV D33 DT LIC		186.8		3,904	141.8	2,644	0.67 0.50
WNPB-TV D34 DT LIC		375.8		17,157	334.7	15,967	1.59 3.01

Interference to proposal scenario 4
3.75% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	
Undesireds:	WOUB-TV	D32	DT	LIC	ATHENS, OH	BLANK0000068360	155.4 km
	WMVH-CD	D32	DC	CP	CHARLEROI, PA	BLANK0000127551	99.1
	WKHU-CD	D32	DC	LIC	KITTANNING, PA	BLANK0000079958	179.1
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	338.2
	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	199.4
	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	66.4

	Service area	Terrain-limited			IX-free	Percent IX	
	21938.1	566,199	21102.7	529,813	20576.2	509,922	2.50 3.75

Undesired				Total IX	Unique IX	Prcnt Unique IX	
WOUB-TV D32 DT LIC		1.0		0	1.0	0	0.00 0.00
WMVH-CD D32 DC CP		4.0		157	0.0	0	0.00 0.00

Table 1 WDTV TVStudy Analysis of Proposal
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WHIO-TV D33 DT LIC	8.0	90	3.0	20	0.01	0.00
WFMJ-TV D33 DT LIC	186.8	3,904	141.8	2,644	0.67	0.50
WNPB-TV D34 DT LIC	375.8	17,157	333.7	15,810	1.58	2.98

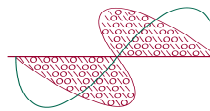


Table 2

Authorized Alternate Television Services

prepared for

Gray Television Licensee, LLC

WDTV(DT) Weston, WV

Call Sign	Ch.	Facility ID	Status	File Number	Community
WQED	4	41315	Lic	0000076434	Pittsburgh, PA
WOUC-TV	6	50141	Lic	0000068363	Cambridge, OH
WTRF-TV	7	6869	Lic	BLCDT-20090227ABV	Wheeling, WV
WSWP-TV	8	71680	CP	0000034625	Grandview, WV
WWCP-TV	8	20295	Lic	0000001637	Johnstown, PA
WTOV-TV	9	74122	Lic	BLCDT-20111206ACB	Steubenville, OH
WVPB-TV	9	71657	CP	0000034622	Huntington, WV
WOWK-TV	10	23342	Lic	0000117991	Huntington, WV
WPCW	11	69880	Lic	BLCDT-20090626AAT	Jeannette, PA
WVNS-TV	11	74169	Lic	0000126737	Lewisburg, WV
WBOY-TV	12	71220	Lic	0000003150	Clarksburg, WV
WVPT	12	60111	CP	0000028448	Staunton, VA
WVPY	12	66378	CP	0000055361	New Market, VA
WVFX	13	10976	CP	0000034189	Clarksburg, WV
WQCW	15	65130	Lic	0000100248	Portsmouth, OH
W16DT-D	16	167356	CP	0000035614	Keyser, WV
WINP-TV	16	41314	Lic	0000098050	Pittsburgh, PA
WLPX-TV	18	73189	Lic	0000118002	Charleston, WV
WHSV-TV	20	4688	Lic	0000063970	Harrisonburg, VA
WPGH-TV	20	73875	Lic	0000112578	Pittsburgh, PA
W21DZ-D	21	167358	CP	0000054636	Romney, WV
WPNT	21	73907	Lic	0000112577	Pittsburgh, PA
WSAZ-TV	22	36912	Lic	0000100249	Huntington, WV
WPXI	23	73910	Lic	0000080213	Pittsburgh, PA
WVAH-TV	24	417	Lic	0000087458	Charleston, WV
KDKA-TV	25	25454	Lic	BLCDT-20041004ACS	Pittsburgh, PA
WGPT	26	40619	Lic	0000080370	Oakland, MD
WIYE-LD	26	130392	Lic	0000079793	Parkersburg, WV
WTAE-TV	27	65681	Lic	0000112576	Pittsburgh, PA
WPCB-TV	28	13924	Lic	0000079894	Greensburg, PA
WCHS-TV	29	71280	Lic	0000059340	Charleston, WV
WHIZ-TV	30	61216	Lic	0000125049	Zanesville, OH
WKBN-TV	31	73153	Lic	0000081255	Youngstown, OH
WOAY-TV	31	66804	Lic	0000096583	Oak Hill, WV
WYTV	31	4693	Lic	0000081168	Youngstown, OH
WOUB-TV	32	50147	Lic	0000068360	Athens, OH
WNPB-TV	34	71676	Lic	0000106559	Morgantown, WV
WJAC-TV	35	73120	Lic	0000080232	Johnstown, PA
WTAP-TV	35	4685	Lic	0000105709	Parkersburg, WV

Engineering Statement
prepared for
Gray Television Licensee, LLC
WDTV(DT) Weston, WV
Facility ID 70592
Ch. 33 935 kW 228 m

This engineering statement has been prepared on behalf of *Gray Television Licensee, LLC* (“Gray”), licensee of WDTV (Facility ID 70592, Weston WV) in support of a *Petition for Rulemaking* to amend §73.622(i)¹ by changing WDTV’s digital television channel assignment. WDTV is licensed to operate on Channel 5 (BLCDT-20090612AJX). As described herein, *Gray* requests substitution of Channel 33 in lieu of Channel 5 for WDTV.

The WDTV Channel 5 facility is in the Low-Band portion of the VHF spectrum and has proven to be ineffective for satisfactory viewer reception as discussed herein and elsewhere in the petition. The use of Channel 33 would place WDTV in the UHF spectrum which is known to provide robust signal levels for home reception.

Since the digital transition in 2009, many viewers have experienced significant difficulty in receiving WDTV’s signal. Problems with digital Low-Band VHF reception by stations in many markets were widely publicized since the 2009 digital transition date. It has been established that indoor reception is difficult for digital Low-Band VHF stations such as WDTV due to the longer wavelength signal’s inability to readily pass through buildings (the windows are smaller than the wavelength size), the ineffectiveness of many indoor antennas many of which were designed to emphasize the shorter wavelengths for UHF reception, and high levels of manmade and environmental noise.

¹The post-incentive auction transition period ended on July 13, 2020, pursuant to the *Incentive Auction Closing and Channel Reassignment Public Notice* (DA 17-317, released April 13, 2017). The FCC’s rules have not yet been amended to reflect all new full power channel assignments in a revised Table of Allotments. Because the Table has not yet been amended, it is understood that FCC’s Media Bureau will continue to refer to the Post-Transition Table of DTV Allotments, 47 CFR § 73.622(i) (2018), for the purpose of post-auction channel change rulemaking proceedings.

No change in transmitting location is proposed. The WDTV tower structure corresponds to FCC Antenna Structure Registration (“ASR”) number 1034466 and is shared with *Gray’s* station WVFX (Facility ID 10976, Clarksburg WV). WVFX was reassigned from Channel 10 to Channel 13 as specified in the *Incentive Auction Closing and Channel Reassignment Public Notice* (DA 17-317, released April 13, 2017). WVFX is currently operating on Channel 13 with an interim facility (see STA file# 0000129895 as extended).

The shared WDTV/WVFX tower will be replaced in order to fully implement the WVFX reassignment Channel 13 facility (see WVFX tolling file# 0000138023). The replacement tower will be built at the existing WDTV/WVFX site location. The replacement WDTV/WVFX tower is designed to support a side-mounted antenna for WDTV. With the necessity to also acquire a new transmitting antenna for WDTV as forced by the tower’s replacement, *Gray* seeks to substitute Channel 33 for WDTV in lieu of Channel 5.

WDTV is licensed to operate on Channel 5 with 10 kW effective radiated power (“ERP”) nondirectional at 240 meters antenna height above average terrain (“HAAT”). *Gray* proposes herein to utilize 935 kW ERP directional on Channel 33 at 228 meters antenna HAAT. A summary of the licensed Channel 5 and proposed Channel 33 technical parameters is provided in the following.

Licensed Channel 5 Parameters (file# BLCDT-20090612AJX)

FacID	Call	Ch	City	St	Lat	Lon	RCAMSL	HAAT	ERP	DA
70592	WDTV	5	WESTON	WV	391802	802036	601.5	240	10	ND

Proposed Channel 33 Parameters

FacID	Call	Ch	City	St	Lat	Lon	RCAMSL	HAAT	ERP	DA
70592	WDTV	33	WESTON	WV	391802	802036	587.4	228.1	935	DA

The proposed directional antenna azimuthal pattern is plotted in Figure 1. A map is supplied as Figure 2, which depicts the standard predicted coverage contours. As demonstrated thereon, the proposed facility complies with §73.625(a)(1) as the entire community of Weston will be encompassed by the 48 dBμ contour.

Interference study per FCC OET Bulletin 69² 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 1.0 km cell size and 0.1 km terrain profile increment. The interference study output report is provided as Table 1.

Figure 3 provides a coverage contour comparison and shows that the proposed Channel 33 noise limited service contour (“NLSC”) will fall short of matching that of the licensed Channel 5 facility. On Channel 33, the best available UHF channel at Weston, the directional pattern is necessary to avoid causing impermissible interference to WFMJ-TV (Ch. 33, Fac ID 72062, Youngstown OH) and WNPB-TV (Ch. 34, Fac ID 71676, Morgantown WV). The corresponding maximum ERP is 935 kW on Channel 33 to comply with the *de minimis* interference limit with the proposed directional pattern.

Figure 3 depicts the proposed WDTV Channel 33 resulting NLSC loss areas along with the NLSC of overlapping alternative authorized television services. The stations providing the alternative services are listed in Table 2. Most of the loss area is within the coverage contour of another station of the same network affiliation (CBS). The areas tinted green on Figure 3 denote WDTV NLSC loss areas that are within one or more overlapping contours from other nearby CBS network affiliate stations. The protected contour of *Gray’s* Low Power Television station WIYE-LD (Fac ID 130392, Parkersburg WV), a CBS network affiliate, also provides overlapping CBS service to a portion of the loss area and is included on the map.

Of the WDTV NLSC loss areas that are not within another CBS affiliate contour, the areas on Figure 3 that are tinted yellow represent locations where there are less than 5 other TV services remaining in those loss areas. For this analysis, the protected contours of two television translator stations are included (W16DT-D Fac ID 167356, Keyser WV and W21DZ-D Fac ID 167358,

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 0.1 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.

Romney WV), as those stations have been licensed as digital³ since 2009 as companions to analog translators that were licensed⁴ prior to 1980. A summary of the number of alternative services for the loss area is provided on the map and in the following table.

Loss Area Analysis – Standard FCC Contours

WDTV Population Within NLSC	(2010 census)
Licensed Ch. 5 Total:	959,448
Proposed Ch. 33 Total:	571,225
Gain Area Population:	0
Loss Area Population:	388,223
Common Area Population:	571,225
Number of Other Services	<u>Loss Pop</u>
0	0
1	0
2	0
3	0
4	2,037
5 or more, or within CBS affil.	386,186
Total Change	388,223
Total less than 5 services	2,037
Total less than 5 (percentage)	0.21%

The licensed Channel 5 facility's NLSC encompasses 959,448 persons and the proposed Channel 33 facility's NLSC would encompass 571,225 persons. The resulting NLSC loss population is 388,223 persons, of which only 2,037 persons would be beyond the contour of another CBS station and have less than five other services. This represents 0.21 percent of the total population within the licensed WDTV Channel 5 NLSC. Most of the NLSC loss area population (386,186 persons) is either within the contour of another CBS affiliate station or well-served, having 5 or more other TV services.

The proposed Channel 33 facility would continue to provide NLSC coverage to considerable areas that are not well-served. As shown in the following table over 34 percent of the proposed WDTV Channel 33 NLSC population is in areas that have four or fewer other services, involving 198,675 persons.

³See BLDTT-20081020ANH and BLDTT-20090609AAZ.

⁴See BLTT-1615 (W48AA, underlying companion of W16DT-D) and BLTT-1616 (W69AC, underlying companion of W23DZ-D).

Service Count Population Report			
Proposed WDTV Ch. 33 NLSC			
Within NLSC	Population	Area (sq. km)	
-----	-----	-----	
0 Other Service	0	0.00	
1 Other Service	0	0.00	
2 Other Service	15,431	1748.85	
3 Other Service	64,390	3114.84	
4 Other Service	118,854	4473.52	
5 or more Other Service	372,550	12852.96	
Total NLSC	571,225	22190.17	
	Population	Running Total	Percent
0 Other Service	0	0	0.0 %
1 Other Service	0	0	0.0 %
2 Other Service	15,431	15,431	2.7 %
3 Other Service	64,390	79,821	14.0 %
4 Other Service	118,854	198,675	34.8 %
5 or more Other Service	372,550	571,225	100.0 %

The results of additional loss area analysis are provided in Figure 4, now to consider terrain-limited coverage predictions of the licensed Channel 5 facility and the proposed Channel 33 operation. Here, the FCC's TVStudy computer program was used to determine terrain-limited coverage predictions at locations beyond the proposed Channel 33 NLSC. The study area was set using the "fixed geography" option to match the WDTV licensed Channel 5 NLSC. Study cell size of 1.0 km and terrain profile step increment of 0.1 km were employed, consistent with the interference analysis for the proposal. The analysis included examination of each cell that is located beyond the Channel 33 NLSC and beyond the contour of another CBS affiliate station or beyond well-served areas, having 5 or more other TV services (the same, yellow-tinted area as Figure 3) as bounded by the existing Channel 5 facility's NLSC. The results regarding the number of alternative services for the loss areas are provided on Figure 4 and in the following table.

Loss Area Analysis – Terrain-Limited

WDTV Terrain-Limited Population	
TVStudy at Fixed Geography Area	(2010 census)
Licensed Ch. 5 Total	889,609
Number of Other NLSC Services	<u>Loss Pop</u>
0	0
1	0
2	0
3	0
4	232
5 or more, or within CBS affil.	69,006
Total Loss	69,238
Total less than 5 services	232
Total less than 5 (percentage)	0.03%

This analysis shows that the terrain-limited loss population beyond the proposed Channel 33 NLSC is 232 persons of the WDTV licensed digital Channel 5 facility. Here, the count of other services where terrain-limited service is lost provides the number of other stations that provide NLSC coverage to each cell. The terrain-limited service loss to 232 persons is located within the existing Channel 5 facility's NLSC, beyond the Channel 33 NLSC, and beyond the contour of another CBS affiliate station or beyond well-served areas, having 5 or more other TV services (the yellow tinted area on Figure 4). Thus, the terrain-limited analysis shows that, except for 232 persons, all of the proposed Channel 33 facility's loss population (69,238 persons) would be within the coverage contour of another CBS station or have five or more other services.

Conclusion

The proposed channel substitution complies with the FCC's principal community coverage requirements of §73.625 and the interference protection requirements of §73.616.

List of Attachments

Figure 1	Antenna Azimuthal Pattern
Figure 2	Proposed Coverage Contours
Figure 3	Coverage Contour Comparison; Loss Area Analysis – Standard FCC Contours
Figure 4	Loss Area Analysis – Terrain-Limited Method
Table 1	TVStudy Analysis of Proposal
Table 2	Overlapping Authorized Alternate Television Services

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E.	March 16, 2021	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600

Azimuth Pattern

Type:	ATW-WC	Polarization:	Horizontal
Directivity:	1.40 numeric (1.46 dB)	Frequency:	33 (ATSC)
Peak(s) at:		Location:	Clarksburg, WV
		NOTE: Pattern shape and directivity may vary with channel and mounting configuration.	

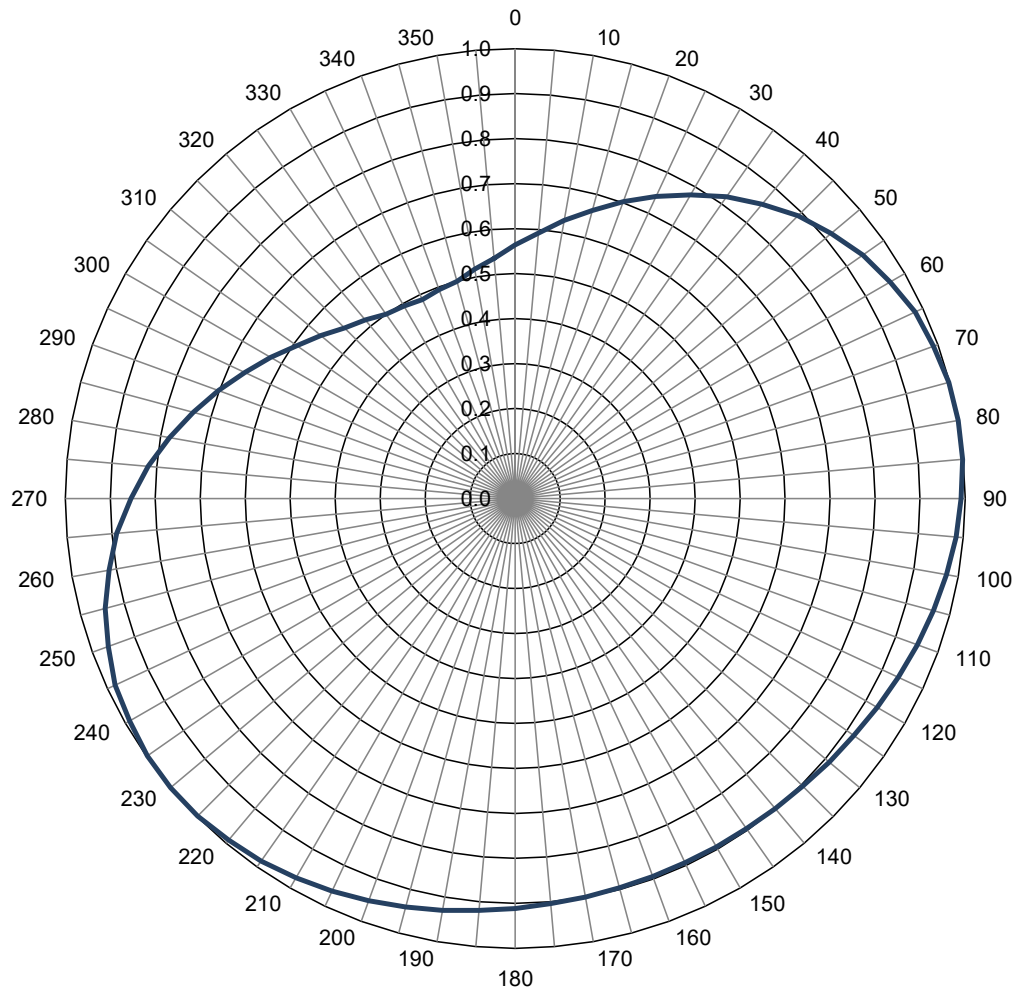
Relative Field

Figure 1
Antenna Azimuthal Pattern
WDTV(DT) Weston, WV
Facility ID 70592
Ch. 33 935 kW 228 m

prepared for
Gray Television Licensee, LLC

March, 2021

Figure 2
Proposed Coverage Contours
WDTV(DT) Weston, WV
Facility ID 70592
Ch. 33 935 kW 228 m

prepared for
Gray Television Licensee, LLC

March, 2021

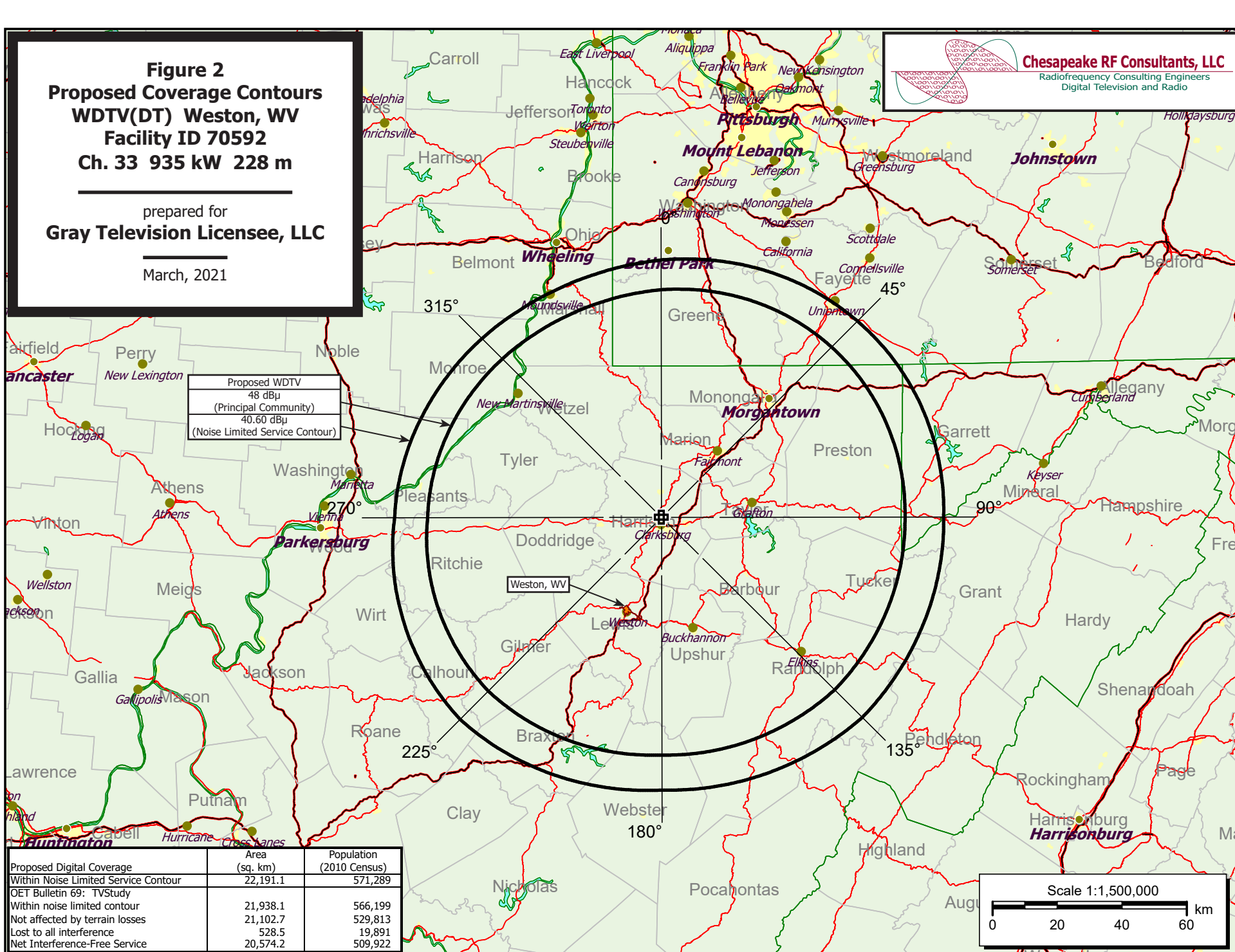
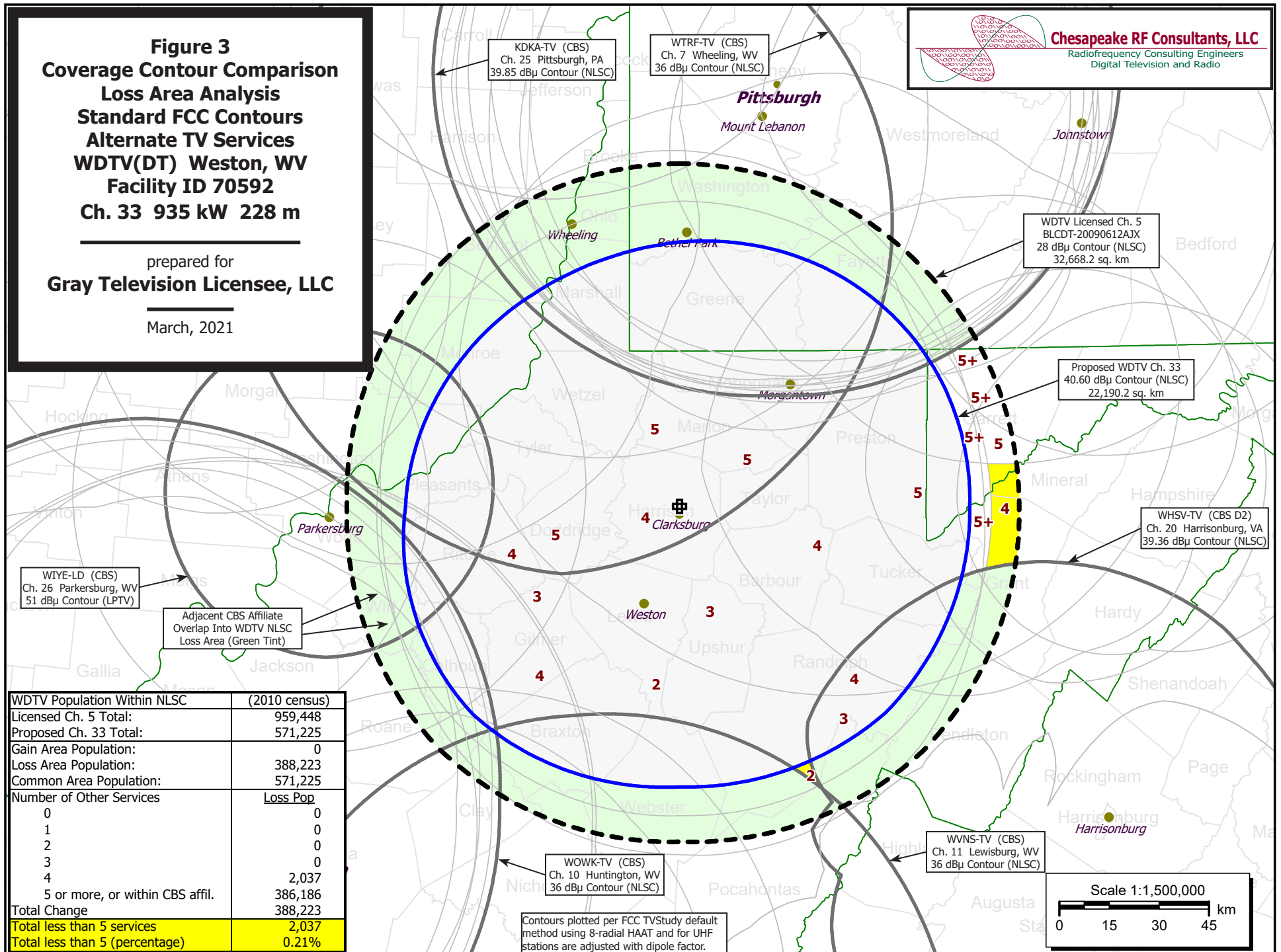


Figure 3
Coverage Contour Comparison
Loss Area Analysis
Standard FCC Contours
Alternate TV Services
WDTV(DT) Weston, WV
Facility ID 70592
Ch. 33 935 kW 228 m

prepared for
Gray Television Licensee, LLC
 March, 2021



WDTV Population Within NLSC	(2010 census)
Licensed Ch. 5 Total:	959,448
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3	0
4	2,037
5 or more, or within CBS affil.	386,186
Total Change	388,223
Total less than 5 services	2,037
Total less than 5 (percentage)	0.21%

Contours plotted per FCC TVStudy default method using 8-radial HAAT and for UHF stations are adjusted with dipole factor.

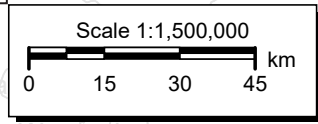


Figure 4
Loss Area Analysis
Terrain-Limited Method
WDTV(DT) Weston, WV
Facility ID 70592
Ch. 33 935 kW 228 m

prepared for
Gray Television Licensee, LLC

March, 2021

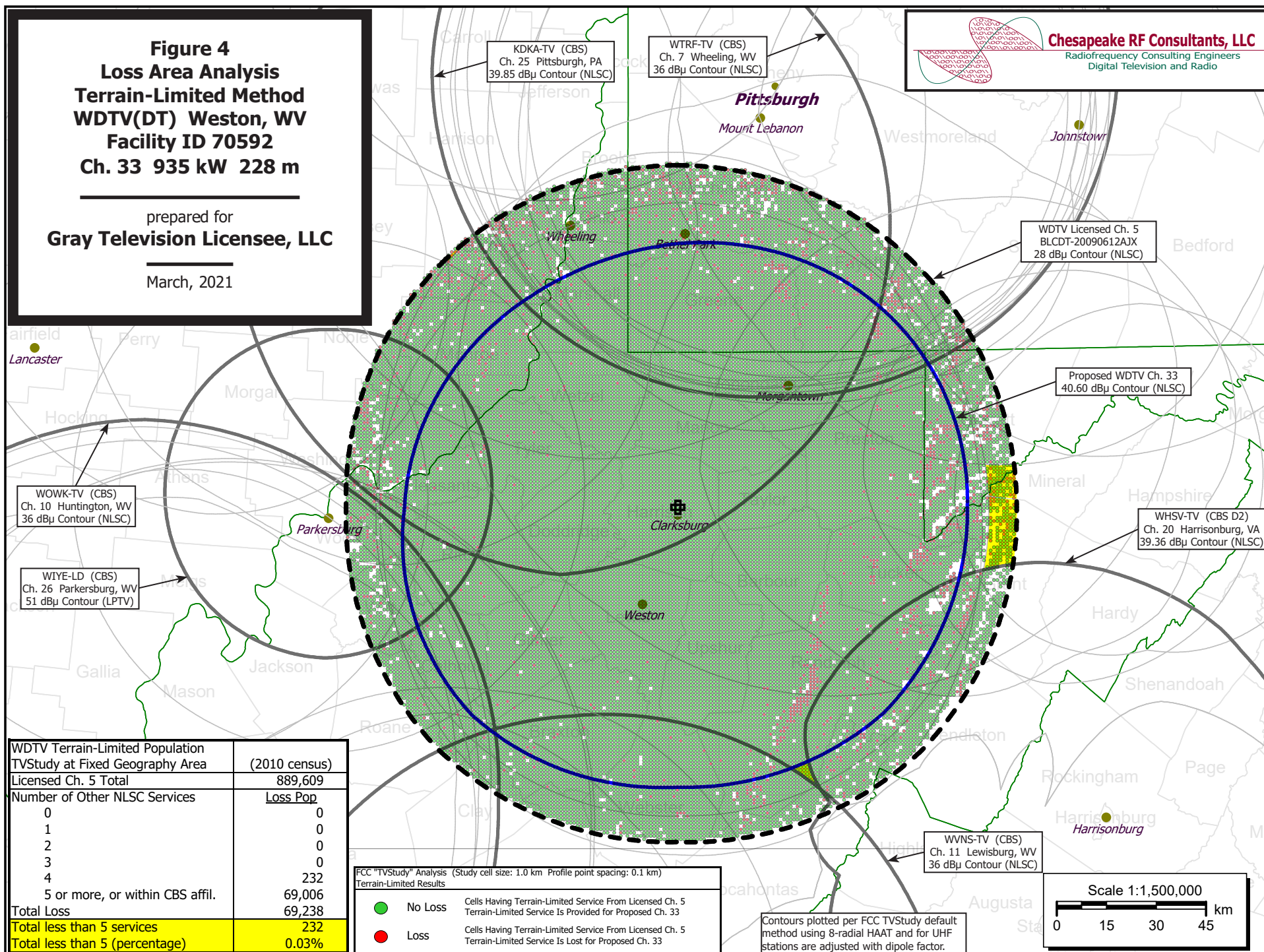


Table 1 WDTV TVStudy Analysis of Proposal (page 1 of 7)



tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: WDTV Ch-33 WC 935kW prop 1.0-0.1, Model: Longley-Rice
Start: 2021.03.15 09:58:22

Study created: 2021.03.15 09:58:22

Study build station data: LMS TV 2021-03-15

Proposal: WDTV D33 DT APP WESTON, WV
File number: WDTV Ch-33 WC 935kW
Facility ID: 70592
Station data: User record
Record ID: 3507
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	WOUB-TV	D32	DT	LIC	ATHENS, OH	BLANK0000068360	155.4 km
No	WMVH-CD	D32	DC	LIC	CHARLEROI, PA	BLANK0000079929	99.1
No	WMVH-CD	D32	DC	CP	CHARLEROI, PA	BLANK00000127551	99.1
No	WKHU-CD	D32	DC	LIC	KITTANNING, PA	BLANK0000079958	179.1
No	WKHU-CD	D32	DC	CP	KITTANNING, PA	BLANK00000127549	179.1
No	WCAV	D32	DT	LIC	CHARLOTTESVILLE, VA	BLANK0000092578	218.0
Yes	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	284.1
Yes	WHUT-TV	D33	DT	LIC	WASHINGTON, DC	BLEDT20071018AIJ	284.1
Yes	WKHA	D33	DT	LIC	HAZARD, KY	BLANK0000075043	341.3
Yes	WUNL-TV	D33	DT	LIC	WINSTON-SALEM, NC	BLANK00000121301	325.1
No	WGRZ	D33	DT	LIC	BUFFALO, NY	BLANK00000137137	408.2
Yes	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	338.2
Yes	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	199.4
No	WPSG	D33	DT	LIC	PHILADELPHIA, PA	BLANK00000129342	444.1
No	WQFX-TV	D33	DT	LIC	SCRANTON, PA	BLANK0000080158	457.3
No	WTVZ-TV	D33	DT	CP	NORFOLK, VA	BLANK00000117232	435.4
No	WTVZ-TV	D33	DT	LIC	NORFOLK, VA	BLANK00000125150	435.4
No	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	234.0
Yes	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK00000106559	66.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D33
Latitude: 39 18 2.00 N (NAD83)
Longitude: 80 20 36.00 W
Height AMSL: 587.4 m
HAAT: 228.1 m
Peak ERP: 935 kW
Antenna: ERI ATW-WC 155.0 deg
Elev Pattn: Generic
Elec Tilt: 0.50

40.6 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	298 kW	238.4 m	79.6 km
45.0	737	230.9	84.8
90.0	919	226.5	86.2
135.0	766	243.2	86.5
180.0	779	214.2	83.6
225.0	931	233.5	87.1
270.0	680	207.1	82.1
315.0	270	231.4	78.6

Proposal 25.60 dBu contour does not cross Canadian border
Distance to Canadian border: 316.0 km

Table 1 WDTV TVStudy Analysis of Proposal
(page 2 of 7)



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

Study cell size: 1.00 km
Profile point spacing: 0.10 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Interference to BLANK0000035679 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	284.1 km
	WPSG	D33	DT	LIC	PHILADELPHIA, PA	BLANK0000129342	198.9
	WTVZ-TV	D33	DT	CP	NORFOLK, VA	BLANK0000117232	243.3
	WRC-TV	D34	DT	LIC	WASHINGTON, DC	BLANK0000079826	1.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
22110.4	7,952,596	21446.2	7,905,549	20886.2	7,867,757	20878.2 7,866,659	0.04 0.01
Undesired		Total IX		Unique IX, before		Unique IX, after	
WDTV D33 DT APP		10.9	1,098			7.9 1,098	
WPSG D33 DT LIC		381.3	30,654	329.1	23,292	327.1 23,292	
WTVZ-TV D33 DT CP		224.9	14,407	172.7	7,045	171.7 7,045	
WRC-TV D34 DT LIC		6.0	93	6.0	93	6.0 93	

Interference to BLANK0000035679 CP scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	284.1 km
	WPSG	D33	DT	LIC	PHILADELPHIA, PA	BLANK0000129342	198.9
	WTVZ-TV	D33	DT	LIC	NORFOLK, VA	BLANK0000125150	243.3
	WRC-TV	D34	DT	LIC	WASHINGTON, DC	BLANK0000079826	1.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
22110.4	7,952,596	21446.2	7,905,549	20889.1	7,867,824	20881.2 7,866,726	0.04 0.01
Undesired		Total IX		Unique IX, before		Unique IX, after	
WDTV D33 DT APP		10.9	1,098			7.9 1,098	
WPSG D33 DT LIC		381.3	30,654	331.1	23,306	329.1 23,306	
WTVZ-TV D33 DT LIC		219.9	14,326	169.7	6,978	168.7 6,978	
WRC-TV D34 DT LIC		6.0	93	6.0	93	6.0 93	

Interference to BLEDT20071018AIJ LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHUT-TV	D33	DT	LIC	WASHINGTON, DC	BLEDT20071018AIJ	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	284.1 km
	WPSG	D33	DT	LIC	PHILADELPHIA, PA	BLANK0000129342	198.9
	WTVZ-TV	D33	DT	CP	NORFOLK, VA	BLANK0000117232	243.3
	WRC-TV	D34	DT	LIC	WASHINGTON, DC	BLANK0000079826	1.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
17877.2	7,654,305	17519.9	7,622,839	17063.5	7,570,898	17061.5 7,570,894	0.01 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	

Table 1 WDTV TVStudy Analysis of Proposal
(page 3 of 7)



WDTV D33 DT APP	2.0	4			2.0	4
WPSG D33 DT LIC	345.4	40,939	305.4	38,936	305.4	38,936
WTVZ-TV D33 DT CP	123.0	7,898	86.1	6,034	86.1	6,034
WRC-TV D34 DT LIC	28.0	5,107	25.0	4,968	25.0	4,968

Interference to BLEDT20071018AIJ LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHUT-TV	D33	DT	LIC	WASHINGTON, DC	BLEDT20071018AIJ	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	284.1 km
	WPSG	D33	DT	LIC	PHILADELPHIA, PA	BLANK0000129342	198.9
	WTVZ-TV	D33	DT	LIC	NORFOLK, VA	BLANK0000125150	243.3
	WRC-TV	D34	DT	LIC	WASHINGTON, DC	BLANK0000079826	1.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
17877.2 7,654,305		17519.9 7,622,839		17068.5 7,571,306		17066.5 7,571,302	0.01 0.00
Undesired			Total IX	Unique IX, before		Unique IX, after	
WDTV D33 DT APP			2.0 4			2.0 4	
WPSG D33 DT LIC			345.4 40,939	306.4 39,343		306.4 39,343	
WTVZ-TV D33 DT LIC			117.0 7,083	81.0 5,626		81.0 5,626	
WRC-TV D34 DT LIC			28.0 5,107	25.0 4,968		25.0 4,968	

Interference to BLANK0000075043 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WKHA	D33	DT	LIC	HAZARD, KY	BLANK0000075043	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	341.3 km
	WKPT-TV	D32	DT	LIC	KINGSPORT, TN	BLANK0000070485	126.1
	WTIU	D33	DT	LIC	BLOOMINGTON, IN	BLANK0000087599	361.1
	WUNL-TV	D33	DT	LIC	WINSTON-SALEM, NC	BLANK0000121301	266.7
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	297.1
	WPDP-CD	D33-	DC	LIC	CLEVELAND, TN	BLANK0000081661	262.5
	WPGD-TV	D33	DT	LIC	HENDERSONVILLE, TN	BMLCDT20131125BGF	337.4
	WVLT-TV	D34	DT	LIC	KNOXVILLE, TN	BLANK0000081956	149.7
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
21355.9 509,383		19652.4 443,880		19580.2 442,018		19578.2 441,947	0.01 0.02
Undesired			Total IX	Unique IX, before		Unique IX, after	
WDTV D33 DT APP			2.0 71			2.0 71	
WKPT-TV D32 DT LIC			21.0 107	18.0 107		18.0 107	
WTIU D33 DT LIC			1.0 0	1.0 0		1.0 0	
WUNL-TV D33 DT LIC			15.0 293	12.0 293		12.0 293	
WHIO-TV D33 DT LIC			13.1 157	13.1 157		13.1 157	
WPDP-CD D33- DC LIC			2.0 0	1.0 0		1.0 0	
WPGD-TV D33 DT LIC			20.0 1,305	20.0 1,305		20.0 1,305	
WVLT-TV D34 DT LIC			4.0 0	3.0 0		3.0 0	

Interference to BLANK0000121301 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WUNL-TV	D33	DT	LIC	WINSTON-SALEM, NC	BLANK0000121301	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	325.1 km
	WAXN-TV	D32	DT	LIC	KANNAPOLIS, NC	BLANK0000081193	127.9
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	407.1
	WTNG-CD	D33	DC	LIC	LUMBERTON-PEMBROKE, NC	BLANK0000081109	218.4
	WRLK-TV	D33	DT	LIC	COLUMBIA, SC	BLANK0000111852	256.0
	WTVZ-TV	D33	DT	CP	NORFOLK, VA	BLANK0000117232	348.5
	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	93.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
39002.8 3,045,855		36564.6 2,844,406		35816.8 2,807,963		35816.8 2,807,963	0.00 0.00
Undesired			Total IX	Unique IX, before		Unique IX, after	
WDTV D33 DT APP			1.0 0			0.0 0	
WAXN-TV D32 DT LIC			41.8 9,990	19.9 5,478		19.9 5,478	

Table 1 WDTV TVStudy Analysis of Proposal
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WTNG-CD D33 DC LIC	33.8	1,154	11.9	245	11.9	245
WRLK-TV D33 DT LIC	163.5	15,314	124.7	10,305	124.7	10,305
WTVZ-TV D33 DT CP	72.2	2,631	67.2	2,615	67.2	2,615
WSLS-TV D34 DT LIC	483.4	12,585	479.4	12,569	478.4	12,569

Interference to BLANK0000121301 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WUNL-TV	D33	DT	LIC	WINSTON-SALEM, NC	BLANK0000121301	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	325.1 km
	WAXN-TV	D32	DT	LIC	KANNAPOLIS, NC	BLANK0000081193	127.9
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	407.1
	WTNG-CD	D33	DC	LIC	LUMBERTON-PEMBROKE, NC	BLANK0000081109	218.4
	WRLK-TV	D33	DT	LIC	COLUMBIA, SC	BLANK0000111852	256.0
	WTVZ-TV	D33	DT	LIC	NORFOLK, VA	BLANK0000125150	348.5
	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	93.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
39002.8 3,045,855		36564.6 2,844,406		35817.8 2,808,122		35817.8 2,808,122	0.00 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
WDTV D33 DT APP		1.0		0		0.0	0
WAXN-TV D32 DT LIC		41.8		9,990	19.9 5,478	19.9	5,478
WTNG-CD D33 DC LIC		33.8		1,154	11.9 245	11.9	245
WRLK-TV D33 DT LIC		163.5		15,314	124.7 10,305	124.7	10,305
WTVZ-TV D33 DT LIC		70.2		2,458	66.2 2,456	66.2	2,456
WSLS-TV D34 DT LIC		483.4		12,585	480.4 12,583	479.4	12,583

Interference to BLANK0000087475 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	338.2 km
	WTIU	D33	DT	LIC	BLOOMINGTON, IN	BLANK0000087599	203.8
	WKHA	D33	DT	LIC	HAZARD, KY	BLANK0000075043	297.1
	WKAR-TV	D33	DT	LIC	EAST LANSING, MI	BLANK0000054990	330.2
	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	340.0
	WKEF	D34	DT	LIC	DAYTON, OH	BLANK0000113880	1.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
32193.2 3,882,627		31835.8 3,864,453		30975.1 3,806,379		30969.1 3,806,281	0.02 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
WDTV D33 DT APP		35.8		10,936		5.9	98
WTIU D33 DT LIC		710.7		29,990	622.0 29,228	621.0	29,228
WKHA D33 DT LIC		11.0		713	9.0 713	9.0	713
WKAR-TV D33 DT LIC		48.9		425	5.0 43	5.0	43
WFMJ-TV D33 DT LIC		214.8		27,953	132.0 27,249	115.0	16,519
WKEF D34 DT LIC		3.0		67	0.0 0	0.0	0

Interference to BLANK0000089155 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	199.4 km
	WMVH-CD	D32	DC	LIC	CHARLEROI, PA	BLANK0000079929	123.5
	WKHU-CD	D32	DC	LIC	KITTANNING, PA	BLANK0000079958	98.3
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	384.5
	WGRZ	D33	DT	LIC	BUFFALO, NY	BLANK0000137137	250.4
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	340.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
27701.9 4,319,279		26590.4 3,794,358		26063.0 3,701,060		25967.2 3,682,919	0.37 0.49
Undesired		Total IX		Unique IX, before		Unique IX, after	
WDTV D33 DT APP		256.9		57,090		95.8	18,141
WGRZ D33 DT LIC		497.5		77,429	497.5 77,429	355.3	52,796

Table 1 WDTV TVStudy Analysis of Proposal
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WHIO-TV D33 DT LIC	29.9	15,869	29.9	15,869	11.0	1,553
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Interference to BLANK0000089155 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	199.4 km
	WMVH-CD	D32	DC	LIC	CHARLEROI, PA	BLANK0000079929	123.5
	WKHU-CD	D32	DC	CP	KITTANNING, PA	BLANK00000127549	98.3
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	384.5
	WGRZ	D33	DT	LIC	BUFFALO, NY	BLANK00000137137	250.4
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	340.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
27701.9 4,319,279		26590.4 3,794,358		26057.1 3,700,911		25965.2 3,682,874	0.35 0.49
Undesired			Total IX	Unique IX, before		Unique IX, after	
WDTV D33 DT APP			256.9 57,090			91.9 18,037	
WKHU-CD D32 DC CP			6.0 149	6.0 149		2.0 45	
WGRZ D33 DT LIC			497.5 77,429	497.5 77,429		355.3 52,796	
WHIO-TV D33 DT LIC			29.9 15,869	29.9 15,869		11.0 1,553	

Interference to BLANK0000106559 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	
Undesireds:	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	66.4 km
	WRC-TV	D34	DT	LIC	WASHINGTON, DC	BLANK0000079826	245.3
	WKBW-TV	D34	DT	LIC	BUFFALO, NY	BLANK00000134785	340.6
	WKEF	D34	DT	LIC	DAYTON, OH	BLANK00000113880	384.1
	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	279.3
	WJAC-TV	D35	DT	LIC	JOHNSTOWN, PA	BLANK0000080232	100.2
	WTAP-TV	D35	DT	LIC	PARKERSBURG, WV	BLANK00000105709	159.3
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
30668.0 2,131,890		28596.4 1,992,239		28333.8 1,981,462		28192.7 1,971,649	0.50 0.50
Undesired			Total IX	Unique IX, before		Unique IX, after	
WDTV D33 DT APP			141.1 9,813			141.1 9,813	
WRC-TV D34 DT LIC			85.0 580	65.0 321		65.0 321	
WKBW-TV D34 DT LIC			11.0 967	5.0 924		5.0 924	
WKEF D34 DT LIC			2.0 1	2.0 1		2.0 1	
WSLS-TV D34 DT LIC			8.9 21	7.0 21		7.0 21	
WJAC-TV D35 DT LIC			180.7 9,510	160.6 9,208		160.6 9,208	
WTAP-TV D35 DT LIC			1.0 0	1.0 0		1.0 0	

Interference to proposal scenario 1
3.75% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	
Undesireds:	WOUB-TV	D32	DT	LIC	ATHENS, OH	BLANK0000068360	155.4 km
	WMVH-CD	D32	DC	LIC	CHARLEROI, PA	BLANK0000079929	99.1
	WKHU-CD	D32	DC	LIC	KITTANNING, PA	BLANK0000079958	179.1
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	284.1
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	338.2
	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	199.4
	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	66.4
Service area		Terrain-limited		IX-free		Percent IX	
21938.1 566,199		21102.7 529,813		20574.2 509,922		2.50 3.75	
Undesired			Total IX	Unique IX		Prcnt Unique IX	
WOUB-TV D32 DT LIC			1.0 0	1.0 0		0.00 0.00	
WMVH-CD D32 DC LIC			2.0 0	0.0 0		0.00 0.00	
WHUT-TV D33 DT CP			4.9 6	2.0 0		0.01 0.00	
WHIO-TV D33 DT LIC			8.0 90	3.0 20		0.01 0.00	

Table 1 WDTV TVStudy Analysis of Proposal
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WFMJ-TV D33 DT LIC	186.8	3,904	139.8	2,644	0.66	0.50
WNPB-TV D34 DT LIC	375.8	17,157	334.7	15,967	1.59	3.01

Interference to proposal scenario 2
3.75% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	
Undesireds:	WOUB-TV	D32	DT	LIC	ATHENS, OH	BLANK0000068360	155.4 km
	WMVH-CD	D32	DC	CP	CHARLEROI, PA	BLANK0000127551	99.1
	WKHU-CD	D32	DC	LIC	KITTANNING, PA	BLANK0000079958	179.1
	WHUT-TV	D33	DT	CP	WASHINGTON, DC	BLANK0000035679	284.1
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	338.2
	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	199.4
	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	66.4

	Service area	Terrain-limited			IX-free	Percent IX	
	21938.1	566,199	21102.7	529,813	20574.2	509,922	2.50 3.75

Undesired				Total IX	Unique IX	Prcnt Unique IX	
WOUB-TV D32 DT LIC		1.0		0	1.0	0	0.00 0.00
WMVH-CD D32 DC CP		4.0		157	0.0	0	0.00 0.00
WHUT-TV D33 DT CP		4.9		6	2.0	0	0.01 0.00
WHIO-TV D33 DT LIC		8.0		90	3.0	20	0.01 0.00
WFMJ-TV D33 DT LIC		186.8		3,904	139.8	2,644	0.66 0.50
WNPB-TV D34 DT LIC		375.8		17,157	333.7	15,810	1.58 2.98

Interference to proposal scenario 3
3.75% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	
Undesireds:	WOUB-TV	D32	DT	LIC	ATHENS, OH	BLANK0000068360	155.4 km
	WMVH-CD	D32	DC	LIC	CHARLEROI, PA	BLANK0000079929	99.1
	WKHU-CD	D32	DC	LIC	KITTANNING, PA	BLANK0000079958	179.1
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	338.2
	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	199.4
	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	66.4

	Service area	Terrain-limited			IX-free	Percent IX	
	21938.1	566,199	21102.7	529,813	20576.2	509,922	2.50 3.75

Undesired				Total IX	Unique IX	Prcnt Unique IX	
WOUB-TV D32 DT LIC		1.0		0	1.0	0	0.00 0.00
WMVH-CD D32 DC LIC		2.0		0	0.0	0	0.00 0.00
WHIO-TV D33 DT LIC		8.0		90	3.0	20	0.01 0.00
WFMJ-TV D33 DT LIC		186.8		3,904	141.8	2,644	0.67 0.50
WNPB-TV D34 DT LIC		375.8		17,157	334.7	15,967	1.59 3.01

Interference to proposal scenario 4
3.75% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WDTV	D33	DT	APP	WESTON, WV	WDTV Ch-33 WC 935kW	
Undesireds:	WOUB-TV	D32	DT	LIC	ATHENS, OH	BLANK0000068360	155.4 km
	WMVH-CD	D32	DC	CP	CHARLEROI, PA	BLANK0000127551	99.1
	WKHU-CD	D32	DC	LIC	KITTANNING, PA	BLANK0000079958	179.1
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	338.2
	WFMJ-TV	D33	DT	LIC	YOUNGSTOWN, OH	BLANK0000089155	199.4
	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	66.4

	Service area	Terrain-limited			IX-free	Percent IX	
	21938.1	566,199	21102.7	529,813	20576.2	509,922	2.50 3.75

Undesired				Total IX	Unique IX	Prcnt Unique IX	
WOUB-TV D32 DT LIC		1.0		0	1.0	0	0.00 0.00
WMVH-CD D32 DC CP		4.0		157	0.0	0	0.00 0.00

Table 1 WDTV TVStudy Analysis of Proposal
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WHIO-TV D33 DT LIC	8.0	90	3.0	20	0.01	0.00
WFMJ-TV D33 DT LIC	186.8	3,904	141.8	2,644	0.67	0.50
WNPB-TV D34 DT LIC	375.8	17,157	333.7	15,810	1.58	2.98

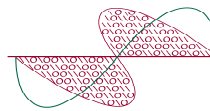


Table 2

Authorized Alternate Television Services

prepared for

Gray Television Licensee, LLC

WDTV(DT) Weston, WV

Call Sign	Ch.	Facility ID	Status	File Number	Community
WQED	4	41315	Lic	0000076434	Pittsburgh, PA
WOUC-TV	6	50141	Lic	0000068363	Cambridge, OH
WTRF-TV	7	6869	Lic	BLCDT-20090227ABV	Wheeling, WV
WSWP-TV	8	71680	CP	0000034625	Grandview, WV
WWCP-TV	8	20295	Lic	0000001637	Johnstown, PA
WTOV-TV	9	74122	Lic	BLCDT-20111206ACB	Steubenville, OH
WVPB-TV	9	71657	CP	0000034622	Huntington, WV
WOWK-TV	10	23342	Lic	0000117991	Huntington, WV
WPCW	11	69880	Lic	BLCDT-20090626AAT	Jeannette, PA
WVNS-TV	11	74169	Lic	0000126737	Lewisburg, WV
WBOY-TV	12	71220	Lic	0000003150	Clarksburg, WV
WVPT	12	60111	CP	0000028448	Staunton, VA
WVPY	12	66378	CP	0000055361	New Market, VA
WVFX	13	10976	CP	0000034189	Clarksburg, WV
WQCW	15	65130	Lic	0000100248	Portsmouth, OH
W16DT-D	16	167356	CP	0000035614	Keyser, WV
WINP-TV	16	41314	Lic	0000098050	Pittsburgh, PA
WLPX-TV	18	73189	Lic	0000118002	Charleston, WV
WHSV-TV	20	4688	Lic	0000063970	Harrisonburg, VA
WPGH-TV	20	73875	Lic	0000112578	Pittsburgh, PA
W21DZ-D	21	167358	CP	0000054636	Romney, WV
WPNT	21	73907	Lic	0000112577	Pittsburgh, PA
WSAZ-TV	22	36912	Lic	0000100249	Huntington, WV
WPXI	23	73910	Lic	0000080213	Pittsburgh, PA
WVAH-TV	24	417	Lic	0000087458	Charleston, WV
KDKA-TV	25	25454	Lic	BLCDT-20041004ACS	Pittsburgh, PA
WGPT	26	40619	Lic	0000080370	Oakland, MD
WIYE-LD	26	130392	Lic	0000079793	Parkersburg, WV
WTAE-TV	27	65681	Lic	0000112576	Pittsburgh, PA
WPCB-TV	28	13924	Lic	0000079894	Greensburg, PA
WCHS-TV	29	71280	Lic	0000059340	Charleston, WV
WHIZ-TV	30	61216	Lic	0000125049	Zanesville, OH
WKBN-TV	31	73153	Lic	0000081255	Youngstown, OH
WOAY-TV	31	66804	Lic	0000096583	Oak Hill, WV
WYTV	31	4693	Lic	0000081168	Youngstown, OH
WOUB-TV	32	50147	Lic	0000068360	Athens, OH
WNPB-TV	34	71676	Lic	0000106559	Morgantown, WV
WJAC-TV	35	73120	Lic	0000080232	Johnstown, PA
WTAP-TV	35	4685	Lic	0000105709	Parkersburg, WV