



**Kessler and Gehman Associates**

**Consultants • Broadcast • Wireless**

**TECHNICAL NARRATIVE  
IN SUPPORT OF  
TEMPORARY OPERATION  
OF A PRE-AUCTION  
CHANNEL BEYOND THE  
POST-AUCTION  
TRANSITION PERIOD**

**CALL SIGN: WVPB-TV**  
**FACILITY ID: 71657**  
**LOCATION: HUNTINGTON, WV**

**Prepared For:**

West Virginia Educational  
Broadcasting Authority  
600 Capitol Street  
Charleston, WV 25301

**Prepared By:**

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June 22, 2020

## **1.0 TECHNICAL ANALYSIS**

Kessler and Gehman Associates, Inc. has been authorized by West Virginia Educational Broadcasting Authority, licensee of WVPB-TV, to prepare a technical statement in support of a legal Special Temporary Authority (STA) requesting waiver of 47 CFR §73.3700(b)(4)(iii) for the continued operation of its licensed pre-transition channel 34 facilities after the July 3, 2020 Phase 10 completion date, until September 8, 2020.

Appendix A is a TVStudy V2.2.5 long form analysis with WVPB-TV run as currently licensed using FCC defaults and options to Post-Transition stations. The study indicates that the most significant outbound interference is 0.05% to WSLS-TV which is well below the 0.5% rounding tolerance used for interference determination. The cumulative inbound interference is predicted to be 2.49%. Although TVStudy indicates “No IX check failures found”, out of an abundance of caution it is respectfully requested to waive the predicted interference shown in appendix A. The continuing operation of the WVPB-TV license will serve the public interest by allowing WVPB-TV to stay on the air in the post transition phase until the construction permitted<sup>1</sup> channel 9 facility has completed construction and is able to go on-the-air.

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<sup>1</sup> FCC File Number: 0000034622

## **2.0 CERTIFICATION**

I, Ryan Wilhour, am an engineering associate of Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida and have been working in the field of radio and television broadcast consulting since 1996. The foregoing statement and the report regarding the aforementioned engineering work are true and correct to the best of my knowledge.

Ryan Wilhour



Consulting Engineer  
June 22, 2020

**APPENDIX A – Long Form TVStudy Analysis**

tvstudy v2.2.5 (4uoc83)  
Database: localhost, Study: BLEDT20120214AAS, Model: Longley-Rice  
Start: 2020.06.22 11:35:44

Study created: 2020.06.22 11:35:44

Study build station data: LMS TV 2020-06-22

Proposal: WVPB-TV D34 DT LIC HUNTINGTON, WV  
File number: BLEDT20120214AAS  
Facility ID: 71657  
Station data: LMS TV 2020-06-22  
Record ID: b71135a1506a4d67997fcf6212b6c0ea  
Country: U.S.  
Zone: I

Search options:

Non-U.S. records included

Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WKHA	D33	DT	LIC	HAZARD, KY	BLANK0000075043	168.7 km
No	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	223.9
No	WRC-TV	D34	DT	LIC	WASHINGTON, DC	BLANK0000079826	446.7
No	WISE-TV	D34	DT	LIC	FORT WAYNE, IN	BLANK0000064330	385.8
No	WKMJ-TV	D34	DT	LIC	LOUISVILLE, KY	BLANK0000087448	316.4
No	WKBD-TV	D34	DT	LIC	DETROIT, MI	BLANK0000074932	453.2
Yes	WKEF	D34	DT	LIC	DAYTON, OH	BLANK0000113880	223.8
No	WNCS-TV	D34	DT	LIC	ROCK HILL, SC	BLANK0000105822	419.7
Yes	WVLT-TV	D34	DT	LIC	KNOXVILLE, TN	BLANK0000081956	318.3
Yes	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	230.5
Yes	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	249.1
No	WKLE	D35	DT	LIC	LEXINGTON, KY	BLANK0000087400	197.9
No	WPTD	D35	DT	LIC	DAYTON, OH	BLANK0000087301	223.2
Yes	WTAP-TV	D35	DT	LIC	PARKERSBURG, WV	BLANK0000105709	109.8

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D34  
Latitude: 38 29 41.30 N (NAD83)  
Longitude: 82 12 2.50 W  
Height AMSL: 585.3 m  
HAAT: 360.5 m  
Peak ERP: 76.3 kW  
Antenna: PSI-PSILPD18D88C-34 (ID 107844) 0.0 deg  
Elev Pattern: Generic  
Elec Tilt: 1.20

40.7 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	4.92 kW	372.6 m	66.3 km
45.0	17.1	357.8	73.0
90.0	36.4	335.7	75.9
135.0	68.9	371.1	83.3
180.0	71.8	360.1	82.6
225.0	39.7	369.7	79.4
270.0	20.2	354.2	73.8
315.0	3.93	343.9	63.4

Database HAAT does not agree with computed HAAT

Database HAAT: 360 m Computed HAAT: 358 m

Proposal 25.68 dBu contour does not cross Canadian border

Distance to Canadian border: 354.0 km

Distance to Mexican border: 1957.8 km

Conditions at FCC monitoring station: Laurel MD

Bearing: 79.2 degrees Distance: 471.7 km

## WVPB-TV – Engineering STA

Huntington, WV

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 282.6 degrees Distance: 1982.7 km

Study cell size: 2.00 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%

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Interference to BLANK0000113880 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WKEF	D34	DT	LIC	DAYTON, OH	BLANK0000113880	
Undesireds:	WVPB-TV	D34	DT	LIC	HUNTINGTON, WV	BLEDT20120214AAS	223.8 km
	WHIO-TV	D33	DT	LIC	DAYTON, OH	BLANK0000087475	1.2
	WISE-TV	D34	DT	LIC	FORT WAYNE, IN	BLANK0000064330	172.1
	WKMJ-TV	D34	DT	LIC	LOUISVILLE, KY	BLANK0000087448	203.2
	WKBD-TV	D34	DT	LIC	DETROIT, MI	BLANK0000074932	316.7
	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	384.1
	WPTD	D35	DT	LIC	DAYTON, OH	BLANK0000087301	0.6
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
30932.3	3,730,595	30700.3	3,716,127	27720.7	3,579,496	27720.7 3,579,496	0.00 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
WVPB-TV	D34 DT LIC	16.0	1,044			0.0 0	
WHIO-TV	D33 DT LIC	35.9	8,132	23.9	7,849	23.9 7,849	
WISE-TV	D34 DT LIC	2891.8	113,174	2711.6	109,194	2703.6 109,069	
WKMJ-TV	D34 DT LIC	87.7	6,075	43.8	4,615	43.8 4,615	
WKBD-TV	D34 DT LIC	140.3	1,877	12.0	250	12.0 250	
WNPB-TV	D34 DT LIC	4.0	880	0.0	0	0.0 0	
WPTD	D35 DT LIC	8.0	10,743	8.0	10,743	8.0 10,743	

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Interference to BLANK0000081956 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WVLT-TV	D34	DT	LIC	KNOXVILLE, TN	BLANK0000081956	
Undesireds:	WVPB-TV	D34	DT	LIC	HUNTINGTON, WV	BLEDT20120214AAS	318.3 km
	WKHA	D33	DT	LIC	HAZARD, KY	BLANK0000075043	149.7
	WPDP-CD	D33-	DC	LIC	CLEVELAND, TN	BLANK0000081661	113.1
	WATC-DT	D34	DT	LIC	ATLANTA, GA	BLANK0000107129	219.2
	WKMJ-TV	D34	DT	LIC	LOUISVILLE, KY	BLANK0000087448	311.5
	WNSC-TV	D34	DT	LIC	ROCK HILL, SC	BLANK0000105822	295.5
	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	365.3
	WTCI	D35	DT	CP	CHATTANOOGA, TN	BLANK0000034751	148.4
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
44092.1	1,888,607	34979.1	1,633,633	33964.5	1,603,006	33960.6 1,602,852	0.01 0.01
Undesired		Total IX		Unique IX, before		Unique IX, after	
WVPB-TV	D34 DT LIC	12.0	154			4.0 154	
WKHA	D33 DT LIC	20.1	4	16.1	4	12.0 4	
WPDP-CD	D33- DC LIC	207.9	11,766	87.9	1,875	87.9 1,875	
WATC-DT	D34 DT LIC	328.5	8,064	216.2	2,759	216.2 2,759	
WKMJ-TV	D34 DT LIC	119.7	2,843	87.8	2,802	87.8 2,802	
WNSC-TV	D34 DT LIC	64.3	210	48.3	8	48.3 8	
WSLS-TV	D34 DT LIC	55.9	2,120	55.9	2,120	55.9 2,120	
WTCI	D35 DT CP	422.4	16,843	306.3	9,839	306.3 9,839	

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Interference to BLANK0000081215 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	
Undesireds:	WVPB-TV	D34	DT	LIC	HUNTINGTON, WV	BLEDT20120214AAS	230.5 km
	WUNL-TV	D33	DT	CP	WINSTON-SALEM, NC	BLANK0000034443	93.9
	WRC-TV	D34	DT	LIC	WASHINGTON, DC	BLANK0000079826	330.7
	WITN-TV	D34	DT	LIC	WASHINGTON, NC	BLANK0000091433	320.2
	WNSC-TV	D34	DT	LIC	ROCK HILL, SC	BLANK0000105822	273.8
	WVLT-TV	D34	DT	LIC	KNOXVILLE, TN	BLANK0000081956	365.3

**WVPB-TV – Engineering STA***Huntington, WV*

WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	279.3
WFMY-TV	D35	DT	LIC	GREENSBORO, NC	BLANK0000113927	150.4
WVIR-CD	D35	DC	LIC	CHARLOTTESVILLE, VA	BLANK0000091348	170.7

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
39531.5 1,447,286	33201.1 1,277,753	31603.4 1,225,139	31575.6 1,224,577	0.09 0.05

Undesired	Total IX	Unique IX, before	Unique IX, after
WVPB-TV D34 DT LIC	43.7 691		27.8 562
WUNL-TV D33 DT CP	905.2 36,701	450.5 16,231	450.5 16,231
WRC-TV D34 DT LIC	190.8 4,413	115.2 1,500	115.2 1,500
WITN-TV D34 DT LIC	318.6 11,738	143.4 3,557	143.4 3,557
WNSC-TV D34 DT LIC	450.5 19,945	83.7 1,370	83.7 1,370
WVLT-TV D34 DT LIC	28.0 192	24.0 192	24.0 192
WNPB-TV D34 DT LIC	99.3 979	95.3 979	79.4 850
WFMY-TV D35 DT LIC	343.0 16,818	43.8 1,053	43.8 1,053
WVIR-CD D35 DC LIC	63.6 1,884	31.8 706	31.8 706

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Interference to BLANK0000106559 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance		
Desired:	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559			
Undesireds:	WVPB-TV	D34	DT	LIC	HUNTINGTON, WV	BLEDT20120214AAS	249.1 km		
	WRC-TV	D34	DT	LIC	WASHINGTON, DC	BLANK0000079826	245.3		
	WKBW-TV	D34	DT	CP	BUFFALO, NY	BLANK0000034829	340.6		
	WKEF	D34	DT	LIC	DAYTON, OH	BLANK0000113880	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	BLANK0000105709	159.3		
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
30691.8	2,130,047	27097.0	1,941,707	26530.8	1,921,995	26510.8	1,921,653	0.08	0.02

Undesired	Total IX	Unique IX, before	Unique IX, after
WVPB-TV D34 DT LIC	31.8 492		19.9 342
WRC-TV D34 DT LIC	216.3 4,475	188.2 4,229	188.2 4,229
WKBW-TV D34 DT CP	28.1 3,715	24.1 3,553	24.1 3,553
WKEF D34 DT LIC	27.8 679	19.9 555	11.9 479
WSLS-TV D34 DT LIC	12.0 59	4.0 29	4.0 29
WJAC-TV D35 DT LIC	286.2 10,453	262.0 10,075	262.0 10,075
WTAP-TV D35 DT LIC	35.9 863	27.9 739	27.9 739

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Interference to BLANK0000105709 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance			
Desired:	WTAP-TV	D35	DT	LIC	PARKERSBURG, WV	BLANK0000105709				
Undesireds:	WVPB-TV	D34	DT	LIC	HUNTINGTON, WV	BLEDT20120214AAS	109.8 km			
	WVIZ	D35	DT	LIC	CLEVELAND, OH	BLANK0000082429	226.6			
	WPTD	D35	DT	LIC	DAYTON, OH	BLANK0000087301	233.8			
	WJAC-TV	D35	DT	LIC	JOHNSTOWN, PA	BLANK0000080232	247.9			
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX		
18896.9	512,358	18196.4		494,914	17924.2	485,330	17916.2	485,171	0.04	0.03

Undesired	Total IX	Unique IX, before	Unique IX, after
WVPB-TV D34 DT LIC	16.1 253		8.0 159
WVIZ D35 DT LIC	124.6 3,984	64.4 1,710	60.4 1,678
WPTD D35 DT LIC	191.8 7,755	135.7 5,515	131.7 5,453
WJAC-TV D35 DT LIC	16.0 119	12.0 85	12.0 85

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Interference to proposal scenario 1  
2.49% interference received

Desired:	Call WVPB-TV	Chan D34	Svc DT	Status LIC	City, State HUNTINGTON, WV	File Number BLEDT20120214AAS	Distance
Undesireds:	WKEF	D34	DT	LIC	DAYTON, OH	BLANK0000113880	223.8 km
	WVLT-TV	D34	DT	LIC	KNOXVILLE, TN	BLANK0000081956	318.3
	WSLS-TV	D34	DT	LIC	ROANOKE, VA	BLANK0000081215	230.5
	WNPB-TV	D34	DT	LIC	MORGANTOWN, WV	BLANK0000106559	249.1
	WTAP-TV	D35	DT	LIC	PARKERSBURG, WV	BLANK0000105709	109.8
	Service area	Terrain-limited			IX-free	Percent IX	
	17696.9 780,268	16897.2 752,747			16386.3 734,023	3.02 2.49	

## WVPB-TV – Engineering STA

### Huntington, WV

Undesired		Total IX		Unique IX	Prct Unique IX	
WKEF D34 DT LIC	379.1	16,634	279.3	12,918	1.65	1.72
WVLT-TV D34 DT LIC	19.9	386	8.0	159	0.05	0.02
WLSL-TV D34 DT LIC	12.0	303	4.0	0	0.02	0.00
WNPB-TV D34 DT LIC	199.8	5,095	111.8	1,847	0.66	0.25
WTAP-TV D35 DT LIC	4.0	53	4.0	53	0.02	0.01