



**STATEMENT OF JOHN E. HIDLE, P.E.  
IN SUPPORT OF AN APPLICATION FOR  
POST REPACK CONSTRUCTION PERMIT  
WTTE - COLUMBUS, OHIO  
DTV - CH. 27 - 829 kW - 271 m HAAT**

Prepared for: COLUMBUS (WTTE-TV) LICENSEE, INC.

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a Licensed Professional Engineer in the Commonwealth of Virginia, License No. 7418, and in the State of New York, License No. 63418.

#### **GENERAL**

This office has been authorized by COLUMBUS (WTTE-TV) LICENSEE, INC., licensee of WTTE, channel 36, facility ID number 74137, licensed to Columbus, Ohio, to prepare this statement, FCC Form 2100, Schedule A, its technical sections, and the associated exhibits in support of an application for construction permit, in accordance with the Incentive Auction Closing and Channel Reassignment Public Notice, DA 17-314, and the technical information provided in the confidential reassignment letter from the FCC announcing the substitution of DTV channel 27 for DTV channel 36 to be used by WTTE for its post-reassignment broadcasting.

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**NON-DIRECTIONAL ANTENNA**

The applicant proposes to install a new Dielectric model TFU-26GBH/VP-R O8 elliptically polarized omni-directional transmitting antenna with its center of radiation located at a height above ground of 290 meters, and a height above average terrain of 271 meters. The antenna manufacturer's horizontal plane azimuth radiation pattern for the vertically polarized component is shown and tabulated in exhibit 2. The manufacturer's vertical plane elevation radiation pattern, illustrating the antenna's radiation characteristics above and below the horizontal plane is shown and tabulated in Exhibit 3.

**PREDICTED COVERAGE CONTOURS**

The predicted coverage contours were calculated in accordance with the method described in Section 73.625(b) of the Rules, utilizing the appropriate F(50,90) propagation curves (47 CFR Section 73.699, Figure 9), proposed Effective Radiated Power, and antenna height above average terrain as determined for each profile radial. The average terrain on the eight cardinal radials from 3 kilometers to 16 kilometers from the site, was determined using the NED Three Second US Terrain Database as permitted in the FCC Rules. The antenna site elevation and coordinates were determined from FCC antenna registration data. Exhibit 1 shows the predicted Noise Limited (40.05 dBu) contour, and the principal community (48 dBu) contour. The 48 dBu contour completely encompasses the principal community of license, Columbus, Ohio.

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**ALLOCATION CONSIDERATIONS**

***Post-Transition DTV Considerations***

A study was performed, using the FCC's software, tv\_study, v. 2.2.1, to determine if the instant application for construction permit is predicted to cause new prohibited interference to post reassignment DTV stations, construction permits, DTV allotments or Class A DTV stations. The study results, shown in Appendix B, indicate that the instant application for construction permit is predicted to cause no new interference exceeding 0.5% to the populations served by any post reassignment DTV station, construction permit, allotment or Class A DTV stations.

***International DTV Considerations***

The WTTE site is located 195.5 kilometers from the nearest point on the US-Canadian border, therefore coordination with Canada is necessary. (See Appendix B)

**BLANKETING AND INTERMODULATION INTERFERENCE**

Other broadcast and non-broadcast facilities are either co-located with, or located within 10 km of the proposed WTTE site. The applicant does recognize its responsibility to remedy complaints of interference that might result from this proposal in accordance with applicable Rules.

**RADIO FREQUENCY IMPACT**

The FCC's guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions are generally based on recommendations by the National Council on Radiation Protection and Measurements (NCRP) in NCRP Report No. 86 (1986) and by the American National Standards Institute and the Institute of Electrical and

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Electronic Engineers, LLC (IEEE) in ANSI/IEEE C95.1-1992 (IEEE C95.1-1991). The guidelines define a maximum permissible exposure (MPE) level for occupational or "controlled" situations, and for "uncontrolled" environments that apply in all other cases that might affect the general public. The FCC Office of Engineering and Technology's technical bulletin No. 65 entitled, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields" (Edition 97-01, August 1997), provides assistance to determine whether FCC-regulated transmitting facilities, operations or devices comply with guidelines for human exposure to radio frequency electromagnetic fields as adopted by the Commission in 1996. OET Bulletin No. 65 contains the technical information necessary to evaluate compliance with the FCC's policies and guidelines.

The Maximum Permitted Exposure (MPE) level for broadcast facilities that operate on a frequency between 30 MHZ and 300 MHZ is 0.2 milliwatts per centimeter squared ( $\text{mW/cm}^2$ ) for an "uncontrolled" environment, and is 1.0 milliwatts per centimeter squared ( $\text{mW/cm}^2$ ) for a "controlled" environment. The MPE level for broadcast facilities that operate on a frequency between 300 MHZ and 1500 MHZ, primarily UHF TV stations, is determined for an "uncontrolled" environment by dividing the operating frequency in MHz by 1500, and is similarly determined for a "controlled" environment by dividing the operating frequency in MHz by 300.

The predicted emissions of WTTE must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For WTTE, which will operate on television Channel 27 (548-554 MHZ), the MPE is 0.367 milliwatts per centimeter squared ( $\text{mW/cm}^2$ ) in an "uncontrolled" environment and 1.837  $\text{mW/cm}^2$  in a

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"controlled" environment. The proposed WTTE facility will operate with a maximum ERP of 829 kW from an elliptically polarized omni-directional transmitting antenna with a centerline height of 290 meters above ground level (AGL). Considering a predicted vertical plane relative field factor of 0.300 the WTTE facility is predicted to produce a power density at two meters above ground level of 0.06009 mW/cm<sup>2</sup>, which is 16.36% of the FCC guideline value for an "uncontrolled" environment, and 3.272% of the FCC's guideline value for "controlled" environments. There are two FM radio stations, four FM translator stations and two other full-power DTV stations that are located within the relevant proximity of 315 meters. The total estimated percentage of the ANSI value at the proposed site, including the cumulative radiation from all authorizations within the relevant proximity, is 52.86% of the limit applicable to "uncontrolled" environments, and 10.572% of the limit for "controlled" environments. (See Appendix A)

**OCCUPATIONAL SAFETY**

The licensee of WTTE is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WTTE antenna, and is committed to reducing power or ceasing operation during times of maintenance of the transmission systems, when necessary, to ensure protection to personnel.

**SUMMARY**

It is submitted that the instant application for construction permit to change WTTE from channel 36 to channel 27, as described herein, complies with the Rules, Regulations and relevant Policies of the Federal Communications Commission. This statement, FCC

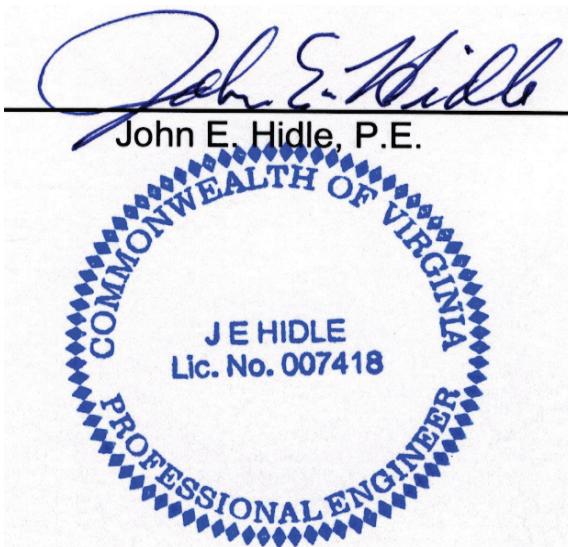
**STATEMENT OF JOHN E. HIDLE, P.E.**

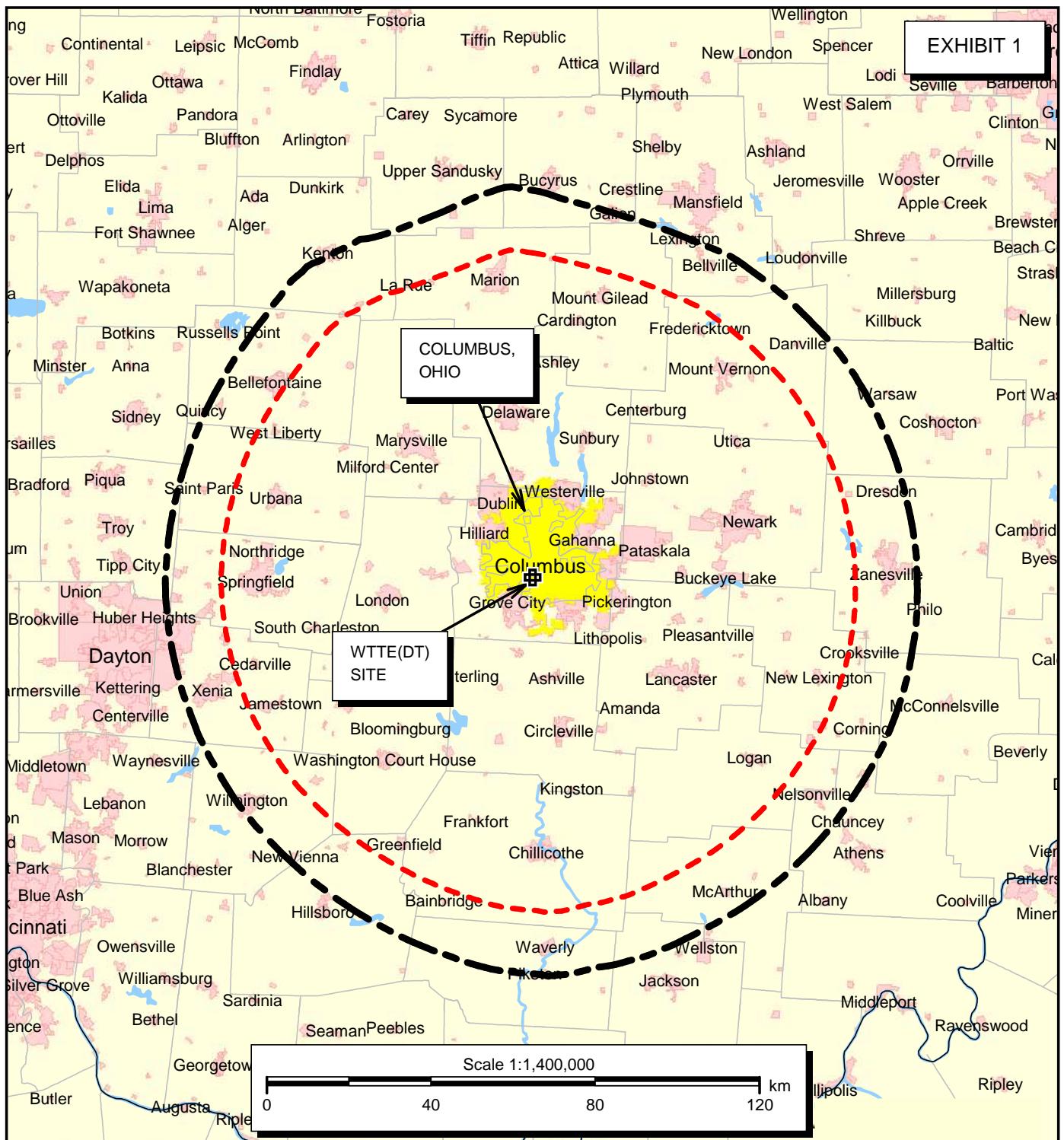
**WTTE - Columbus, Ohio**

**PAGE 6**

Form 2100, its technical sections, and the attached exhibits were prepared by me or under my direct supervision and are believed to be true and correct to the best of my knowledge and belief.

DATED: May 17, 2017





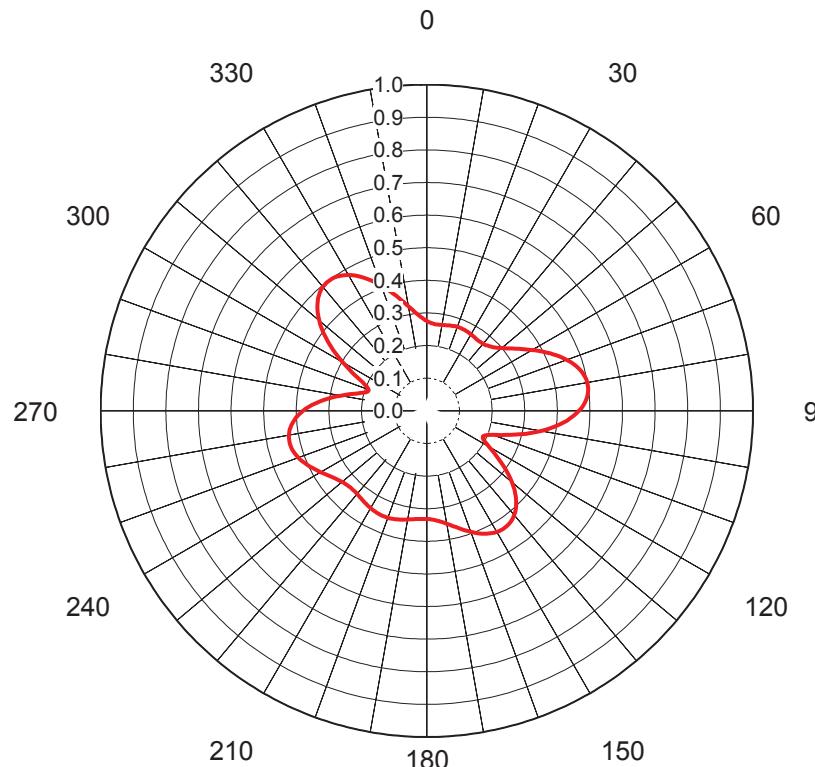
## PREDICTED COVERAGE CONTOURS

WTTE - COLUMBUS, OHIO  
 DTV Channel 27 - 829 kW ERP - 271 M HAAT  
 MAY, 2017

Predicted Noise Limited 40.05 dBu  
 F(50,90) Coverage Contour



Predicted Principal Community 48 dBu  
 F(50,90) Coverage Contour



## AZIMUTH PATTERN Vertical Polarization

Proposal No.	C-70160
Date	1-Mar-17
Call Letters	WTTE 27
Frequency	551 MHz
Antenna Type	TFU-26GBH/VP-R 08
Gain	1.91 (2.81dB) Calculated
Circularity	+/- 5.0 dB

Deg	Value																
0	0.275	36	0.267	72	0.470	108	0.240	144	0.429	180	0.332	216	0.337	252	0.425	288	0.191
1	0.273	37	0.267	73	0.476	109	0.227	145	0.430	181	0.331	217	0.336	253	0.427	289	0.189
2	0.271	38	0.267	74	0.482	110	0.216	146	0.431	182	0.331	218	0.334	254	0.429	290	0.190
3	0.269	39	0.268	75	0.486	111	0.206	147	0.431	183	0.332	219	0.334	255	0.431	291	0.193
4	0.268	40	0.268	76	0.490	112	0.198	148	0.431	184	0.332	220	0.333	256	0.431	292	0.198
5	0.267	41	0.270	77	0.494	113	0.193	149	0.430	185	0.333	221	0.332	257	0.432	293	0.206
6	0.267	42	0.271	78	0.496	114	0.190	150	0.429	186	0.334	222	0.332	258	0.431	294	0.216
7	0.266	43	0.273	79	0.498	115	0.189	151	0.427	187	0.335	223	0.332	259	0.431	295	0.227
8	0.267	44	0.275	80	0.500	116	0.191	152	0.425	188	0.336	224	0.332	260	0.429	296	0.240
9	0.267	45	0.278	81	0.500	117	0.196	153	0.422	189	0.337	225	0.332	261	0.427	297	0.254
10	0.267	46	0.281	82	0.500	118	0.202	154	0.419	190	0.339	226	0.333	262	0.425	298	0.268
11	0.268	47	0.285	83	0.498	119	0.210	155	0.416	191	0.340	227	0.334	263	0.421	299	0.283
12	0.268	48	0.290	84	0.496	120	0.220	156	0.412	192	0.341	228	0.335	264	0.417	300	0.298
13	0.269	49	0.294	85	0.493	121	0.231	157	0.408	193	0.342	229	0.337	265	0.413	301	0.313
14	0.270	50	0.300	86	0.490	122	0.243	158	0.404	194	0.344	230	0.339	266	0.407	302	0.327
15	0.271	51	0.305	87	0.485	123	0.256	159	0.400	195	0.345	231	0.342	267	0.401	303	0.342
16	0.272	52	0.311	88	0.480	124	0.268	160	0.395	196	0.346	232	0.344	268	0.395	304	0.356
17	0.272	53	0.318	89	0.474	125	0.281	161	0.391	197	0.347	233	0.347	269	0.387	305	0.370
18	0.273	54	0.325	90	0.467	126	0.293	162	0.386	198	0.348	234	0.351	270	0.379	306	0.384
19	0.273	55	0.332	91	0.459	127	0.306	163	0.381	199	0.348	235	0.354	271	0.371	307	0.396
20	0.274	56	0.340	92	0.450	128	0.318	164	0.377	200	0.349	236	0.358	272	0.361	308	0.409
21	0.274	57	0.348	93	0.441	129	0.330	165	0.372	201	0.349	237	0.362	273	0.351	309	0.420
22	0.274	58	0.356	94	0.431	130	0.341	166	0.368	202	0.349	238	0.367	274	0.341	310	0.431
23	0.274	59	0.365	95	0.420	131	0.351	167	0.363	203	0.349	239	0.371	275	0.329	311	0.441
24	0.274	60	0.373	96	0.408	132	0.361	168	0.359	204	0.349	240	0.376	276	0.318	312	0.450
25	0.274	61	0.382	97	0.396	133	0.371	169	0.355	205	0.349	241	0.381	277	0.306	313	0.459
26	0.273	62	0.391	98	0.383	134	0.379	170	0.351	206	0.348	242	0.385	278	0.293	314	0.466
27	0.273	63	0.400	99	0.370	135	0.387	171	0.348	207	0.347	243	0.390	279	0.281	315	0.473
28	0.272	64	0.408	100	0.356	136	0.395	172	0.345	208	0.346	244	0.395	280	0.268	316	0.479
29	0.271	65	0.417	101	0.342	137	0.401	173	0.342	209	0.345	245	0.399	281	0.255	317	0.485
30	0.271	66	0.425	102	0.327	138	0.407	174	0.340	210	0.344	246	0.404	282	0.243	318	0.489
31	0.270	67	0.434	103	0.312	139	0.412	175	0.337	211	0.343	247	0.408	283	0.231	319	0.493
32	0.269	68	0.442	104	0.297	140	0.417	176	0.336	212	0.342	248	0.412	284	0.220	320	0.496
33	0.269	69	0.450	105	0.282	141	0.421	177	0.334	213	0.341	249	0.416	285	0.210	321	0.498
34	0.268	70	0.457	106	0.268	142	0.424	178	0.333	214	0.340	250	0.419	286	0.202	322	0.499
35	0.267	71	0.464	107	0.253	143	0.427	179	0.332	215	0.338	251	0.422	287	0.195	323	0.499

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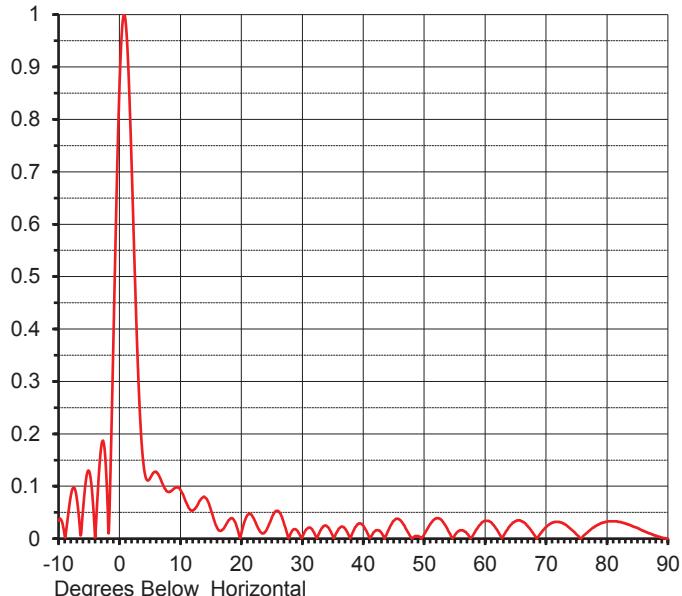
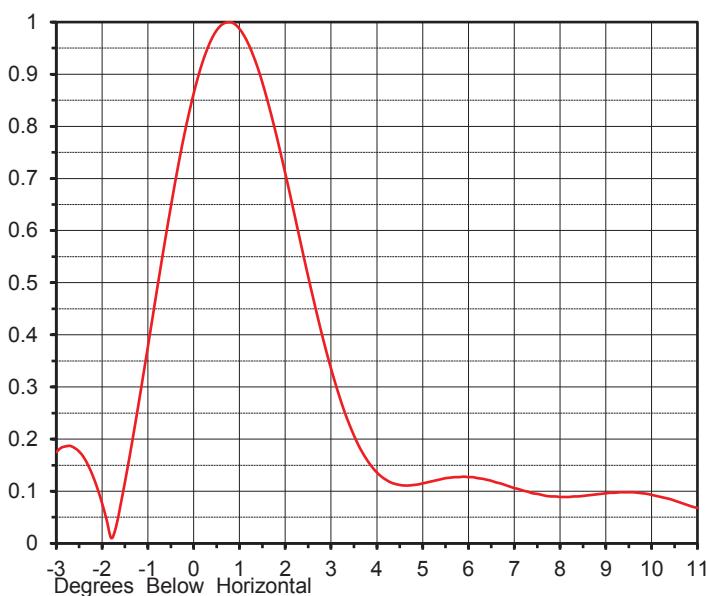
## ELEVATION PATTERN

Proposal No. C-70160  
 Date 1-Mar-17  
 Call Letters WTTE 27  
 Frequency 551 MHz  
 Antenna Type TFU-26GBH/VP-R 08

RMS Directivity at Main Lobe  
 RMS Directivity at Horizontal

**24.00 ( 13.80 dB )**  
**17.90 ( 12.53 dB )**  
 Calculated

Beam Tilt 0.75 deg  
 Drawing Number 26G240075



Angle	Field								
-10.0	0.034	10.0	0.093	30.0	0.003	50.0	0.008	70.0	0.022
-9.0	0.006	11.0	0.068	31.0	0.021	51.0	0.028	71.0	0.030
-8.0	0.081	12.0	0.054	32.0	0.010	52.0	0.039	72.0	0.032
-7.0	0.076	13.0	0.069	33.0	0.016	53.0	0.033	73.0	0.028
-6.0	0.053	14.0	0.079	34.0	0.024	54.0	0.014	74.0	0.019
-5.0	0.129	15.0	0.055	35.0	0.005	55.0	0.006	75.0	0.008
-4.0	0.002	16.0	0.021	36.0	0.019	56.0	0.016	76.0	0.003
-3.0	0.175	17.0	0.018	37.0	0.019	57.0	0.010	77.0	0.014
-2.0	0.077	18.0	0.036	38.0	0.004	58.0	0.006	78.0	0.023
-1.0	0.377	19.0	0.031	39.0	0.026	59.0	0.024	79.0	0.029
0.0	0.863	20.0	0.010	40.0	0.025	60.0	0.034	80.0	0.032
1.0	0.987	21.0	0.045	41.0	0.003	61.0	0.031	81.0	0.033
2.0	0.710	22.0	0.039	42.0	0.015	62.0	0.016	82.0	0.032
3.0	0.335	23.0	0.015	43.0	0.011	63.0	0.005	83.0	0.029
4.0	0.136	24.0	0.014	44.0	0.013	64.0	0.023	84.0	0.025
5.0	0.115	25.0	0.040	45.0	0.034	65.0	0.033	85.0	0.020
6.0	0.127	26.0	0.053	46.0	0.036	66.0	0.033	86.0	0.015
7.0	0.106	27.0	0.029	47.0	0.019	67.0	0.024	87.0	0.010
8.0	0.089	28.0	0.007	48.0	0.000	68.0	0.008	88.0	0.006
9.0	0.096	29.0	0.017	49.0	0.005	69.0	0.008	89.0	0.002

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**SUMMARY OF RADIOFREQUENCY  
RADIATION STUDY**  
**WTTE, Columbus, Ohio**  
**CHANNEL 27, 829 kW ERP, 271 m HAAT**  
**MAY, 2017**

CALL	SERVICE	CHANNEL	FREQUENCY	POLARIZATION	ANTENNA HEIGHT ** mAGL	ERP (kW)	RELATIVE FIELD FACTOR	PREDICTED POWER DENSITY (mW/cm <sup>2</sup> )	FCC UNCONTROLLED LIMIT (mW/cm <sup>2</sup> )	PERCENT OF UNCONTROLLED LIMIT
WUFM	FM	204	88.7	H & V	253	5.000	1.000	0.00522	0.200	2.61%
WHKC	FM	218	91.5	H & V	226.6	15.000	1.000	0.01952	0.200	9.76%
W225CS	FM	225	92.9	H & V	238	0.250	1.000	0.00029	0.200	0.15%
W240CX	FM	240	95.9	H & V	233	0.099	1.000	0.00012	0.200	0.06%
W257CV	FM	257	99.3	H & V	259	0.085	1.000	0.00008	0.200	0.04%
W283CL	FM	283	104.5	H & V	189	0.250	1.000	0.00047	0.200	0.23%
WTTE	DT	27	551	H & V	288	829.000	0.300	0.06009	0.367	16.36%
WWHO	DT	23	527	H & V	303	628.000	0.300	0.04112	0.351	11.71%
WSYX	DT	28	557	H & V	303	677.000	0.300	0.04433	0.371	11.94%

**TOTAL PERCENTAGE OF ANSI VALUE= 52.86%**

\*\* The antenna heights indicated above are 2 meters less than the actual antenna heights so that the predicted power densities consider the 2 meter human height allowance. This evaluation includes facilities collocated at the site, and facilities located within 315 meters.





## WTTE - COLUMBUS, OHIO Longley-Rice Interference Analysis

tvstudy v2.2.2

Database: localhost, Study: BLCDT20050701ABA (on 27) (597), Model: Longley-Rice  
Start: 2017.05.17 14:10:29

Study created: 2017.05.17 14:10:22

Study build station data: LMS TV 2017-05-16 (10)

Proposal: WTTE D27 (D36) DT LIC COLUMBUS, OH  
File number: BLCDT20050701ABA  
Facility ID: 74137  
Station data: LMS TV 2017-05-16 (10)  
Record ID: f35cd6952bcb46d8a7d8cf6212b6c0ea  
Country: U.S.  
Zone: I

Non-U.S. records included

Stations potentially affected:

Call	Chan	Svc	Status	City, State	File Number	Distance
WCPO-TV	D26	DT	BL	CINCINNATI, OH	DTVBL59438	155.6 km
WUPW	D26	DT	BL	TOLEDO, OH	DTVBL19190	194.4
WTWV	D27	DT	BL	BLOOMINGTON, IN	DTVBL56523	273.9
WNDU-TV	D27	DT	BL	SOUTH BEND, IN	DTVBL41674	326.4
WTVQ-DT	D27	DT	BL	LEXINGTON, KY	DTVBL51597	242.5
WADL	D27	DT	BL	MOUNT CLEMENS, MI	DTVBL455	291.1
W16DO-D	D27	DC	BL	CLEVELAND, OH	DTVBL41074	195.8
WQLN	D27	DT	BL	ERIE, PA	DTVBL53716	340.9
WTAE-TV	D27	DT	BL	PITTSBURGH, PA	DTVBL65681	276.2
WPXR-TV	D27	DT	BL	ROANOKE, VA	DTVBL70251	393.6
WLEX-TV	D28	DT	BL	LEXINGTON, KY	DTVBL73203	242.5
WSYX	D28	DT	BL	COLUMBUS, OH	DTVBL56549	0.0

Cannot run AM station check, missing parameters

Record parameters as studied:

Channel: D27  
Latitude: 39 56 14.00 N (NAD83)  
Longitude: 83 1 16.00 W  
Height AMSL: 508.0 m  
HAAT: 271.0 m  
Peak ERP: 829 kW  
Antenna: Omnidirectional

40.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	829 kW	277.6 m	94.1 km
45.0	829	261.2	91.5
90.0	829	272.9	93.4
135.0	829	282.2	94.8
180.0	829	296.0	96.6

**Appendix B - Interference Analysis**  
**WTTE - Columbus, Ohio**  
**Channel 27 - 829 kW - Page 2**

225.0	829	251.8	89.8
270.0	829	242.9	88.5
315.0	829	254.0	90.2

Database HAAT does not agree with computed HAAT  
 Database HAAT: 271 m Computed HAAT: 267 m

Proposal service area is within baseline plus 1.0%  
 Proposal service area population is more than 95.0% of baseline

\*\*Proposal is within coordination distance of Canadian border  
 Distance to Canadian border: 195.5 km

Distance to Mexican border: 2008.0 km

Conditions at FCC monitoring station: Allegan MI  
 Bearing: 321.4 degrees Distance: 384.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
 Bearing: 277.9 degrees Distance: 1884.6 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 DTVBL59438 BL, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
Undesireds:	WCPO-TV	D26	DT	BL	CINCINNATI, OH	DTVBL59438	
WTTE	D27	DT	BL		COLUMBUS, OH	DTVBL74137	155.6 km
WTTE	D27	DT	LIC		COLUMBUS, OH	BLCDT20050701ABA	155.6
WRTV	D25	DT	LIC		INDIANAPOLIS, IN	BLCDT20090623ACJ	169.4
WUPX-TV	D25	DT	BL		MOREHEAD, KY	DTVBL23128	154.9
WFIE	D26	DT	BL		EVANSVILLE, IN	DTVBL13991	296.5
WUPW	D26	DT	BL		TOLEDO, OH	DTVBL19190	295.1
WATE-TV	D26	DT	LIC		KNOXVILLE, TN	BMLCDT20041203AEG	350.4
WTW	D27	DT	BL		BLOOMINGTON, IN	DTVBL56523	145.3
WTVO-DT	D27	DT	BL		LEXINGTON, KY	DTVBL51597	121.6

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX					
30408.3	3,329,025	29959.1	3,311,813	29139.9	3,285,660	29139.9	3,285,660	0.00	0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WTTE D27 DT BL	67.5	973	67.5
WTTE D27 DT LIC	67.5	973	67.5
WUPX-TV D25 DT BL	160.6	3,663	84.6
WFIE D26 DT BL	47.8	914	20.1
WUPW D26 DT BL	8.1	887	8.1
WATE-TV D26 DT LIC	67.5	996	4.0
WTW D27 DT BL	186.8	8,240	186.8
WTVO-DT D27 DT BL	440.0	13,869	320.6

**Appendix B - Interference Analysis**  
**WTTE - Columbus, Ohio**  
**Channel 27 - 829 kW - Page 3**

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Interference to DTVBL19190 BL, scenario 1  
Proposal causes no interference.

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Interference to DTVBL56523 BL, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTTE	D27	DT	BL	BLOOMINGTON, IN	DTVBL56523	
Undesireds:	WTTE	D27	DT	BL	COLUMBUS, OH	DTVBL74137	273.9 km
	WTTE	D27	DT	LIC	COLUMBUS, OH	BLCDT20050701ABA	273.9
	WCPO-TV	D26	DT	BL	CINCINNATI, OH	DTVBL59438	145.3
	W40CN-D	D27	DC	BL	SUGAR GROVE, IL	DTVBL71111	329.4
	WNDU-TV	D27	DT	BL	SOUTH BEND, IN	DTVBL41674	244.4
	WTVQ-DT	D27	DT	BL	LEXINGTON, KY	DTVBL51597	215.5
	WIPX-TV	D28	DT	BL	BLOOMINGTON, IN	DTVBL10253	0.5
	WIWU-CD	D28	DC	BL	MARION, IN	DTVBL29292	140.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
22816.4	2,362,145	22692.7	2,359,560	22340.7	2,346,369	22340.7	2,346,369
Undesired		Total IX		Unique IX, before		Unique IX, after	
WTTE D27 DT BL		75.4		4,538	67.4	4,295	
WTTE D27 DT LIC		75.4		4,538		67.4	4,295
WNDU-TV D27 DT BL		140.6		2,899	124.7	2,549	124.7
WTVQ-DT D27 DT BL		67.9		1,211	48.0	769	48.0
WIPX-TV D28 DT BL		96.0		5,228	92.0	5,136	92.0

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Interference to DTVBL41674 BL, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WNDU-TV	D27	DT	BL	SOUTH BEND, IN	DTVBL41674	
Undesireds:	WTTE	D27	DT	BL	COLUMBUS, OH	DTVBL74137	326.4 km
	WTTE	D27	DT	LIC	COLUMBUS, OH	BLCDT20050701ABA	326.4
	WPVN-CD	D26	DC	BL	CHICAGO, IL	DTVBL168237	121.4
	W40CN-D	D27	DC	BL	SUGAR GROVE, IL	DTVBL71111	187.6
	WTTE	D27	DT	BL	BLOOMINGTON, IN	DTVBL56523	244.4
	WADL	D27	DT	BL	MOUNT CLEMENS, MI	DTVBL455	293.9
	W16DO-D	D27	DC	BL	CLEVELAND, OH	DTVBL41074	376.8
	WVTW	D27	DT	BL	MILWAUKEE, WI	DTVBL74174	216.2
	WEDE-CD	D28	DC	BL	ARLINGTON HEIGHTS, IL	DTVBL66978	121.9
	WIWU-CD	D28	DC	BL	MARION, IN	DTVBL29292	119.8
	WSYM-TV	D28	DT	BL	LANSING, MI	DTVBL74094	160.6
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
28445.8	1,807,909	28382.0	1,783,617	28050.0	1,743,075	28050.0	1,743,075
Undesired		Total IX		Unique IX, before		Unique IX, after	
WTTE D27 DT BL		8.1		127	0.0	0	
WTTE D27 DT LIC		8.1		127		0.0	0
WTTE D27 DT BL		199.3		4,604	171.3	3,799	171.3
WADL D27 DT BL		16.0		2,799	8.0	1,664	8.0
WVTW D27 DT BL		136.7		34,902	116.8	33,139	116.8
WIWU-CD D28 DC BL		11.9		88	0.0	0	0.0

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Interference to DTVBL51597 BL, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTVQ-DT	D27	DT	BL	LEXINGTON, KY	DTVBL51597	
Undesireds:	WTTE	D27	DT	BL	COLUMBUS, OH	DTVBL74137	242.5 km
	WTTE	D27	DT	LIC	COLUMBUS, OH	BLCDT20050701ABA	242.5
	WCPO-TV	D26	DT	BL	CINCINNATI, OH	DTVBL59438	121.6
	WTTV	D27	DT	BL	BLOOMINGTON, IN	DTVBL56523	215.5
	WUNW	D27	DT	LIC	CANTON, NC	BLEDT20110921AAA	304.3
	WKRN-TV	D27	DT	LIC	NASHVILLE, TN	BLCDT20090624ABO	309.0
	WPXR-TV	D27	DT	BL	ROANOKE, VA	DTVBL70251	384.6
	WLEX-TV	D28	DT	BL	LEXINGTON, KY	DTVBL73203	0.0

Service area	Terrain-limited		IX-free, before		IX-free, after		Percent New IX
22128.2	989,180	21598.4	982,394	21278.8	977,260	21278.9	977,328

Undesired	Total IX	Unique IX, before	Unique IX, after
WTTE D27 DT BL	192.1	3,537	135.9 1,602
WTTE D27 DT LIC	192.0	3,469	135.9 1,534
WCPO-TV D26 DT BL	40.1	1,597	4.0 80
WTTV D27 DT BL	44.0	340	4.0 0
WUNW D27 DT LIC	12.0	566	8.0 133
WKRN-TV D27 DT LIC	111.6	1,749	95.6 1,244

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Interference to DTVBL455 BL, scenario 1  
Proposal causes no interference.

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Interference to DTVBL41074 BL, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W16DO-D	D27	DC	BL	CLEVELAND, OH	DTVBL41074	
Undesireds:	WTTE	D27	DT	BL	COLUMBUS, OH	DTVBL74137	195.8 km
	WTTE	D27	DT	LIC	COLUMBUS, OH	BLCDT20050701ABA	195.8
	WUPW	D26	DT	BL	TOLEDO, OH	DTVBL19190	148.7
	WFXP	D26	DT	BL	ERIE, PA	DTVBL19707	153.4
	WADL	D27	DT	BL	MOUNT CLEMENS, MI	DTVBL455	163.2
	WQLN	D27	DT	BL	ERIE, PA	DTVBL53716	153.8
	WTAE-TV	D27	DT	BL	PITTSBURGH, PA	DTVBL65681	200.9
	WJET-TV	D28	DT	BL	ERIE, PA	DTVBL65749	153.4
	CICO-DT-59D28	DT	LIC		CHATHAM, ON	BLANKCANADA167	122.7

Service area	Terrain-limited		IX-free, before		IX-free, after		Percent New IX
7269.2	2,596,305	7144.1	2,584,922	6833.8	2,545,284	6833.8	2,545,284

Undesired	Total IX	Unique IX, before	Unique IX, after
WTTE D27 DT BL	96.4	16,473	40.0 9,794
WTTE D27 DT LIC	96.4	16,473	40.0 9,794
WQLN D27 DT BL	254.2	28,653	165.4 19,738
WTAE-TV D27 DT BL	76.8	6,594	12.2 689

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Interference to DTVBL53716 BL, scenario 1

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Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WQLN	D27	DT	BL	ERIE, PA	DTVBL53716	
Undesireds:	WTTE	D27	DT	BL	COLUMBUS, OH	DTVBL74137	340.9 km
	WTTE	D27	DT	LIC	COLUMBUS, OH	BLCDT20050701ABA	340.9
	WFXP	D26	DT	BL	ERIE, PA	DTVBL19707	0.4
	WADL	D27	DT	BL	MOUNT CLEMENS, MI	DTVBL455	238.9
	WIVT	D27	DT	BL	BINGHAMTON, NY	DTVBL11260	340.2
	WIXT-CD	D27	DC	BL	DEWITT, NY	DTVBL14312	342.5
	W16DO-D	D27	DC	BL	CLEVELAND, OH	DTVBL41074	153.8
	WTAE-TV	D27	DT	BL	PITTSBURGH, PA	DTVBL65681	197.1
	WJET-TV	D28	DT	BL	ERIE, PA	DTVBL65749	0.4
	CKCO-TV-3	D26	DT	LIC	SARNIA, ON	BLANKCANADA216	185.7
	CIII-DT-27D27	DT	LIC		PETERBOROUGH, ON	BLANKCANADA213	274.2
	CICO-DT-59D28	DT	LIC		CHATHAM, ON	BLANKCANADA167	172.1

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
15241.6	602,212	14792.1	578,716	14417.6 566,420 0.00 0.00
2928.4	2,629	2928.4	2,629	2928.4 2,629 0.00 0.00
(in Canada)				

Undesired	Total IX	Unique IX, before	Unique IX, after
WTTE D27 DT BL	16.1	425	0.0
WTTE D27 DT LIC	16.1	425	0.0
WFXP D26 DT BL	8.1	116	0.0
WIVT D27 DT BL	4.0	174	0.0
W16DO-D D27 DC BL	64.4	4,456	20.1
WTAE-TV D27 DT BL	306.1	10,144	257.8
WJET-TV D28 DT BL	52.3	2,114	36.2
CIII-DT-27 D27 DT LIC	4.0	46	0.0
			0
			0.0

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Interference to DTVBL65681 BL, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTAE-TV	D27	DT	BL	PITTSBURGH, PA	DTVBL65681	
Undesireds:	WTTE	D27	DT	BL	COLUMBUS, OH	DTVBL74137	276.2 km
	WTTE	D27	DT	LIC	COLUMBUS, OH	BLCDT20050701ABA	276.2
	WGPT	D26	DT	BL	OAKLAND, MD	DTVBL40619	106.7
	WMAR-TV	D27	DT	BL	BALTIMORE, MD	DTVBL59442	288.9
	WADL	D27	DT	BL	MOUNT CLEMENS, MI	DTVBL455	360.5
	WIVT	D27	DT	BL	BINGHAMTON, NY	DTVBL11260	378.7
	W16DO-D	D27	DC	BL	CLEVELAND, OH	DTVBL41074	200.9
	WQLN	D27	DT	BL	ERIE, PA	DTVBL53716	197.1
	WPXR-TV	D27	DT	BL	ROANOKE, VA	DTVBL70251	344.4
	WPCB-TV	D28	DT	BL	GREENSBURG, PA	DTVBL13924	12.6

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
22775.9	2,966,864	21086.8	2,819,557	20482.2 2,783,149 0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WTTE D27 DT BL	156.4	4,925	96.6 2,862
WTTE D27 DT LIC	156.4	4,925	96.6 2,862
WGPT D26 DT BL	12.0	64	0.0 0.0
WMAR-TV D27 DT BL	32.3	916	20.2 830
W16DO-D D27 DC BL	48.1	3,609	0.0 0.0
WQLN D27 DT BL	363.6	14,641	259.7 10,256
WPXR-TV D27 DT BL	4.0	0	0.0 0.0
WPCB-TV D28 DT BL	140.0	18,545	108.1 17,134

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 Interference to DTVBL70251 BL, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WPXR-TV	D27	DT	BL	ROANOKE, VA	DTVBL70251	
Undesireds:	WTTE	D27	DT	BL	COLUMBUS, OH	DTVBL74137	393.6 km
	WTTE	D27	DT	LIC	COLUMBUS, OH	BLCDT20050701ABA	393.6
	WGPX-TV	D26	DT	BL	BURLINGTON, NC	DTVBL65074	114.2
	WHTJ	D26	DT	BL	CHARLOTTESVILLE, VA	DTVBL9990	171.5
	WTVQ-DT	D27	DT	BL	LEXINGTON, KY	DTVBL51597	384.6
	WMAR-TV	D27	DT	BL	BALTIMORE, MD	DTVBL59442	387.6
	WUNW	D27	DT	LIC	CANTON, NC	BLEDT20110921AAA	305.3
	WGTB-CD	D27	DC	BL	CHARLOTTE, NC	DTVBL70097	222.3
	WUNP-TV	D27	DT	BL	ROANOKE RAPIDS, NC	DTVBL69397	229.8
	WTAE-TV	D27	DT	BL	PITTSBURGH, PA	DTVBL65681	344.4
	WPDE-TV	D27	DT	BL	FLORENCE, SC	DTVBL17012	322.9
	WJGN-CD	D27	DC	BL	CHESAPEAKE, VA	DTVBL66549	339.5
	WMYV	D28	DT	BL	GREENSBORO, NC	DTVBL25544	150.4
	WEWT	D28	DT	BL	GREENEVILLE, TN	DTVBL40761	192.3

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
35636.6 1,298,767	29991.7 1,146,358	29302.5 1,127,244	29302.5 1,127,244	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WTTE D27 DT BL	11.9	255	4.0 21
WTTE D27 DT LIC	11.9	255	4.0 21
WGPX-TV D26 DT BL	107.5	2,622	23.9 390 23.9 390
WTVQ-DT D27 DT BL	23.9	1,546	15.9 1,312 15.9 1,312
WMAR-TV D27 DT BL	23.9	518	8.0 35 8.0 35
WGFB-CD D27 DC BL	27.8	235	15.9 177 15.9 177
WUNP-TV D27 DT BL	446.5	12,988	358.9 10,572 358.9 10,572
WPDE-TV D27 DT BL	119.5	2,844	27.9 433 27.9 433
WMYV D28 DT BL	151.3	4,338	71.7 2,244 71.7 2,244

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 Interference to DTVBL73203 BL, scenario 1  
 Proposal causes no interference.

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 Interference to DTVBL73203 BL, scenario 2  
 Proposal causes no interference.

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 Interference to DTVBL56549 BL, scenario 1  
 Proposal causes no interference.

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 Interference to proposal, scenario 1  
 1.33% interference

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTTE	D27	DT	LIC	COLUMBUS, OH	BLCDT20050701ABA	
Undesireds:	WCPO-TV	D26	DT	BL	CINCINNATI, OH	DTVBL59438	155.6 km
	WTTE	D27	DT	BL	BLOOMINGTON, IN	DTVBL56523	273.9

## Appendix B - Interference Analysis

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WNDU-TV	D27	DT	BL	SOUTH BEND, IN	DTVBL41674	326.4
WTVQ-DT	D27	DT	BL	LEXINGTON, KY	DTVBL51597	242.5
WADL	D27	DT	BL	MOUNT CLEMENS, MI	DTVBL455	291.1
W16DO-D	D27	DC	BL	CLEVELAND, OH	DTVBL41074	195.8
WQLN	D27	DT	BL	ERIE, PA	DTVBL53716	340.9
WTAE-TV	D27	DT	BL	PITTSBURGH, PA	DTVBL65681	276.2
WSYX	D28	DT	BL	COLUMBUS, OH	DTVBL56549	0.0

Service area	Terrain-limited			IX-free	Percent IX	
26830.8	2,636,341	26007.2	2,593,004	25394.2	2,558,510	2.36    1.33

Undesired	Total IX		Unique IX	Prcnt Unique IX	Unique IX
WCPO-TV D26 DT BL	15.9	494	4.0	0.02	0.01
WTIV D27 DT BL	229.0	17,508	60.4	0.23	0.19
WNDU-TV D27 DT BL	200.8	12,875	52.1	0.20	0.07
WTVQ-DT D27 DT BL	163.9	11,328	63.8	0.25	0.03
WADL D27 DT BL	72.1	1,447	8.0	0.03	0.01
W16DO-D D27 DC BL	40.1	682	12.0	0.05	0.01
WQLN D27 DT BL	12.0	535	0.0	0.00	0.00
WTAE-TV D27 DT BL	236.1	13,414	176.2	0.68	0.47