



**STATEMENT OF JOHN E. HIDLE, P.E.  
IN SUPPORT OF AN APPLICATION FOR  
A MINOR MODIFICATION OF A  
POST REPACK CONSTRUCTION PERMIT  
FILE # 0000034387  
WVTV - MILWAUKEE, WISCONSIN  
DTV - CH. 27 - 1000 kW - 318 m HAAT**

Prepared for: WVTV 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, No. 7418, and in New York State, No. 63418.

**GENERAL**

This office has been authorized by WVTV LICENSEE, INC., licensee of WVTV, channel 18, facility ID number 74174, licensed to Milwaukee, Wisconsin, to prepare this statement, FCC Form 2100, Schedule A, its technical sections, and the associated exhibits in support of an application for a minor modification of its post-reassignment construction permit, File # 0000034387, that authorizes WVTV to use channel 27 for its post-reassignment broadcasting. The instant application for modification proposes only to relocate WVTV's authorized transmission facility to its former analog site which is located 88 meters from its authorized site, to substitute a different antenna model number with the same horizontal azimuth pattern and to decrease its Height Above Average Terrain to 318 meters while maintaining its authorized ERP of 1000 kW. These are the only modifications requested in the instant relocation proposal.

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**DIRECTIONAL ANTENNA**

The applicant proposes to install a new Dielectric model TFU-29ETT/VP-R 4C170 elliptically polarized directional transmitting antenna with its center of radiation located at a height above ground of 323.9 meters, and a height above average terrain of 318 meters. The antenna manufacturer's horizontal plane azimuth pattern for the horizontally polarized component is shown and tabulated in exhibit 2. The manufacturer's horizontal plane azimuth pattern for the vertically polarized component is shown and tabulated in exhibit 3. 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 4.

**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, which completely encompasses the principal community of license, Milwaukee, Wisconsin.

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## **ALLOCATION CONSIDERATIONS**

### ***Post-Transition DTV Considerations***

A study was performed, using the FCC's software, *tvstudy*, v. 2.2.5, 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 A, indicate that the instant application for modification of 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 WVTY site is located 401.8 kilometers from the nearest point on the US/Canadian border. And more than 1900 kilometers from the US/Mexican border. Since all non-US stations were included in the instant study, and none appeared in the results it is believed that no international coordination is necessary. (See Appendix A)

## **BLANKETING AND INTERMODULATION INTERFERENCE**

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

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**RADIO FREQUENCY IMPACT AND OCCUPATIONAL SAFETY**

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 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 facilities 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 200 microwatts per centimeter squared ( $\mu\text{W}/\text{cm}^2$ ) for an "uncontrolled" environment, and is 1000 microwatts per centimeter squared ( $\mu\text{W}/\text{cm}^2$ ) for a "controlled" environment. The MPE level for broadcast facilities that operate on a frequency between 300 MHZ and 1500 MHZ, primarily UHF DTV stations, is determined for an "uncontrolled" environment by dividing the operating frequency in MHZ by 1.5, and is determined for a "controlled" environment by dividing the operating frequency in MHZ by 0.3.

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The predicted emissions of WVTV must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For WVTV, which will operate on television Channel 27 (548-554 MHZ), the MPE is 367.33 microwatts per centimeter squared ( $\mu\text{W}/\text{cm}^2$ ) in an "uncontrolled" environment and 1,836.7  $\mu\text{W}/\text{cm}^2$  in a "controlled" environment. The proposed WVTV facility will operate with a maximum ERP of 1000 kW from an elliptically polarized directional transmitting antenna with a centerline height of 323.9 meters above ground level (AGL). As shown on the vertical elevation pattern submitted elsewhere in this application, the relative field of the proposed antenna does not exceed a value of 0.100 at any downward direction greater than 7 degrees below the horizontal. Therefore, considering this worst-case downward relative field, the WVTV is predicted to produce a maximum power density of only 0.780 microwatts per square centimeter toward a distance which is 86.3 meters from the tower base. This represents only 0.21% of the FCC Guideline value of 367.33 microwatts per square centimeter for uncontrolled RFR environments. Pursuant to Section 1.1307(b)(3) of the FCC Rules, because the proposed facility would not exceed 5% of the uncontrolled and controlled exposure limit, the proposal's power density contribution is insignificant.

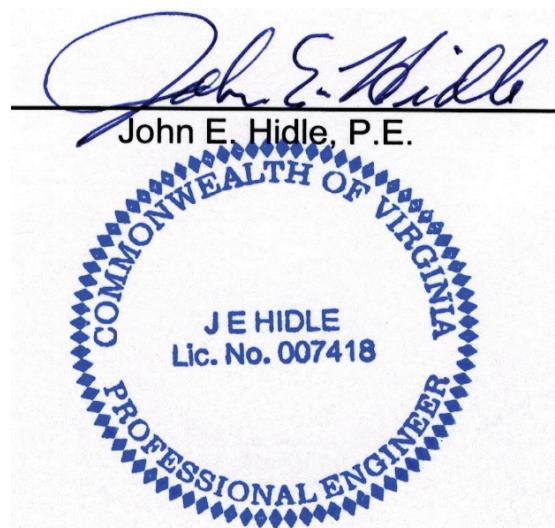
Further, the Applicant will continue to cooperate/coordinate with other site users and reduce power and/or cease operation during times of service or maintenance of the transmission systems as necessary to avoid potentially harmful exposure to personnel. In light of the above, the proposed facility should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Commission's Rules.

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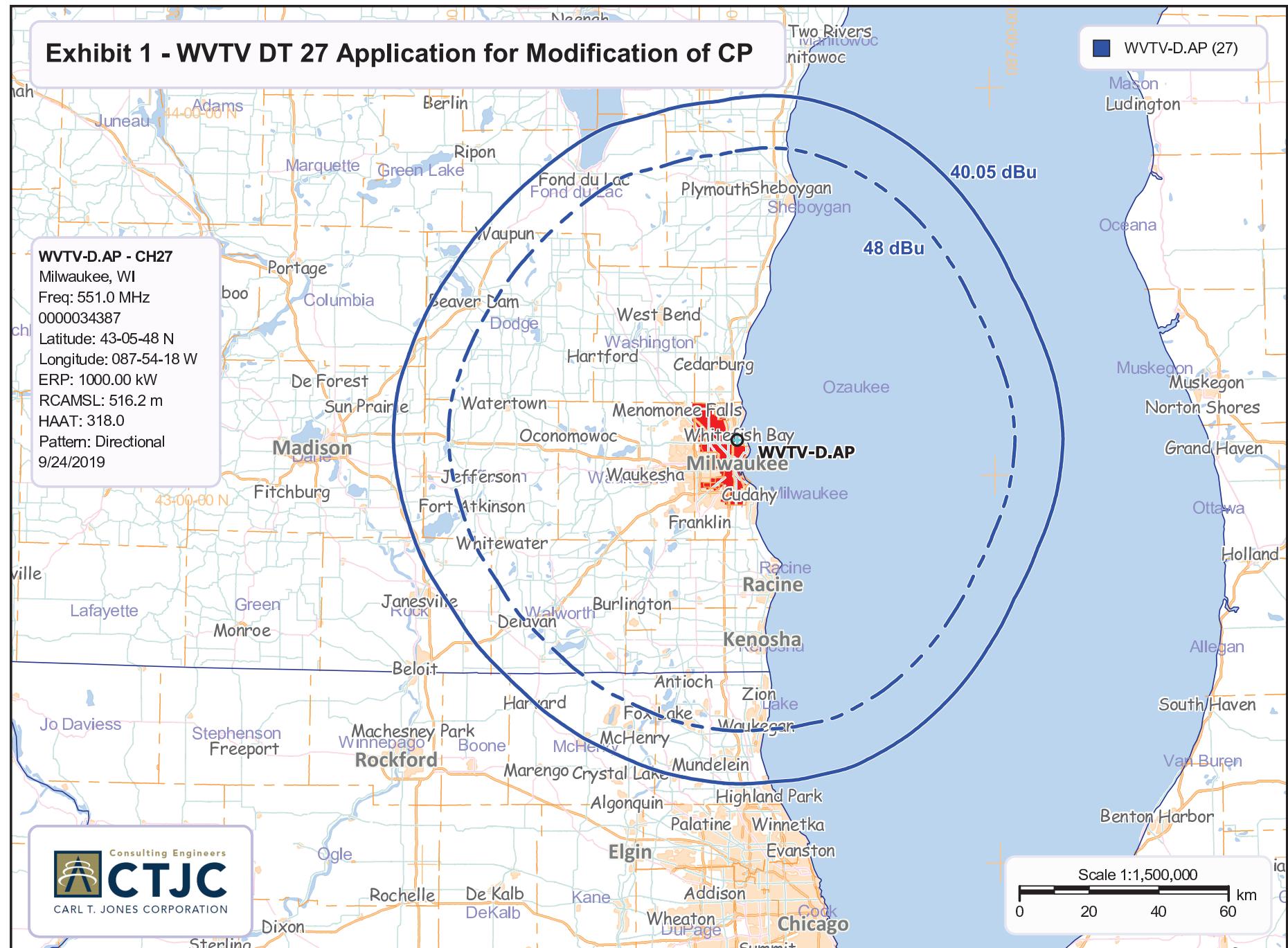
**SUMMARY**

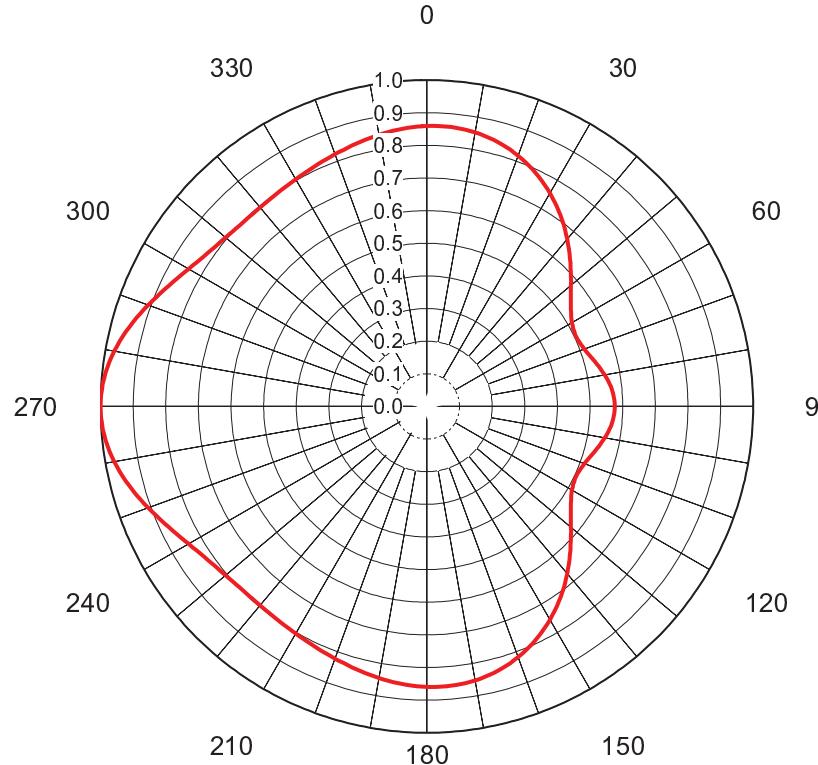
It is submitted that the instant application for minor modification of its post-reassignment channel 27 construction permit, file # 0000034387, to relocate WVTV a distance of 88 meters from its authorized site to its former analog tower site, ASR #1045308, to substitute a different antenna model with the same authorized horizontal azimuth pattern, to decrease its HAAT to 318 meters and maintain its authorized ERP at 1000 kW, as described herein, complies with the Rules, Regulations and relevant Policies of the Federal Communications Commission. This statement, FCC 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: September 24, 2019



## Exhibit 1 - WVTW DT 27 Application for Modification of CP



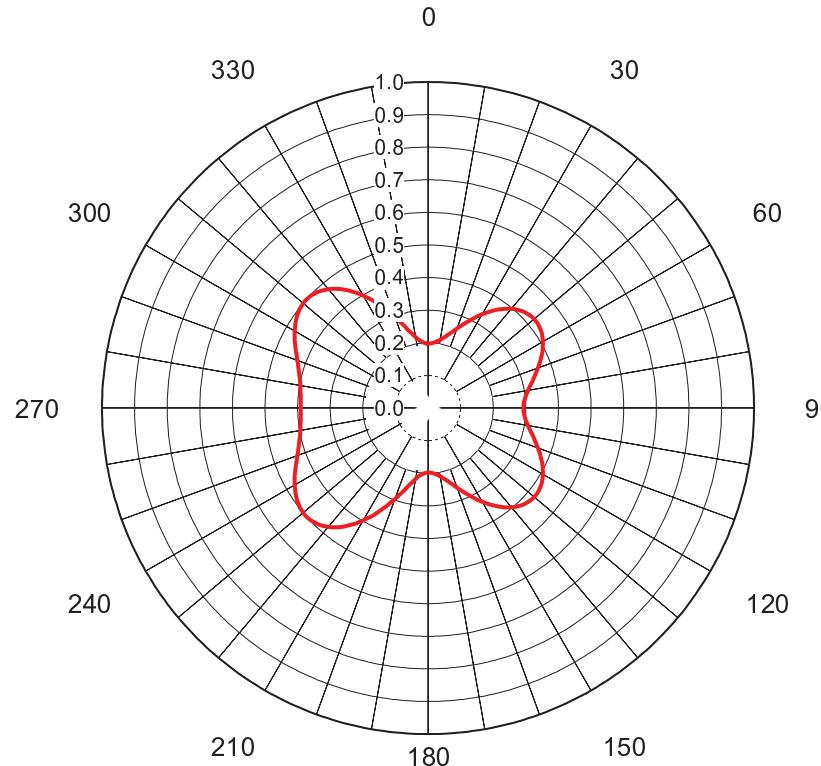


## AZIMUTH PATTERN Horizontal Polarization

Proposal No. C-71255-1  
 Date 15-Jan-19  
 Call Letters WVTW  
 Channel 27  
 Frequency 551 MHz  
 Antenna Type TFU-29ETT/VP-R 4C170  
 Gain 1.67 (2.22dB)  
 Calculated

Deg	Value																		
0	0.860	36	0.705	72	0.520	108	0.520	144	0.705	180	0.860	216	0.797	252	0.923	288	0.923	324	0.797
1	0.860	37	0.697	73	0.524	109	0.517	145	0.714	181	0.859	217	0.797	253	0.930	289	0.916	325	0.798
2	0.860	38	0.688	74	0.528	110	0.514	146	0.723	182	0.858	218	0.796	254	0.937	290	0.909	326	0.799
3	0.860	39	0.678	75	0.533	111	0.511	147	0.731	183	0.857	219	0.796	255	0.943	291	0.902	327	0.800
4	0.860	40	0.669	76	0.537	112	0.509	148	0.739	184	0.856	220	0.796	256	0.950	292	0.894	328	0.801
5	0.859	41	0.660	77	0.541	113	0.507	149	0.747	185	0.854	221	0.796	257	0.956	293	0.887	329	0.803
6	0.859	42	0.650	78	0.546	114	0.506	150	0.755	186	0.853	222	0.796	258	0.962	294	0.880	330	0.804
7	0.858	43	0.641	79	0.550	115	0.506	151	0.762	187	0.851	223	0.796	259	0.968	295	0.874	331	0.805
8	0.856	44	0.631	80	0.554	116	0.506	152	0.769	188	0.849	224	0.796	260	0.973	296	0.867	332	0.807
9	0.855	45	0.622	81	0.558	117	0.507	153	0.776	189	0.847	225	0.797	261	0.978	297	0.861	333	0.809
10	0.853	46	0.613	82	0.561	118	0.508	154	0.783	190	0.845	226	0.798	262	0.982	298	0.855	334	0.810
11	0.850	47	0.603	83	0.565	119	0.511	155	0.789	191	0.843	227	0.800	263	0.986	299	0.849	335	0.812
12	0.848	48	0.594	84	0.568	120	0.513	156	0.796	192	0.841	228	0.801	264	0.990	300	0.843	336	0.814
13	0.845	49	0.585	85	0.570	121	0.517	157	0.802	193	0.838	229	0.803	265	0.993	301	0.838	337	0.816
14	0.842	50	0.577	86	0.572	122	0.522	158	0.807	194	0.836	230	0.805	266	0.996	302	0.833	338	0.818
15	0.839	51	0.568	87	0.574	123	0.527	159	0.813	195	0.834	231	0.807	267	0.997	303	0.828	339	0.820
16	0.835	52	0.560	88	0.575	124	0.532	160	0.818	196	0.832	232	0.810	268	0.999	304	0.824	340	0.822
17	0.831	53	0.553	89	0.576	125	0.539	161	0.822	197	0.829	233	0.813	269	0.999	305	0.820	341	0.825
18	0.827	54	0.545	90	0.576	126	0.545	162	0.827	198	0.827	234	0.816	270	1.000	306	0.816	342	0.827
19	0.822	55	0.539	91	0.576	127	0.553	163	0.831	199	0.825	235	0.820	271	0.999	307	0.813	343	0.829
20	0.818	56	0.532	92	0.575	128	0.560	164	0.835	200	0.822	236	0.824	272	0.999	308	0.810	344	0.832
21	0.813	57	0.527	93	0.574	129	0.568	165	0.839	201	0.820	237	0.828	273	0.997	309	0.807	345	0.834
22	0.807	58	0.522	94	0.572	130	0.577	166	0.842	202	0.818	238	0.833	274	0.996	310	0.805	346	0.836
23	0.802	59	0.517	95	0.570	131	0.585	167	0.845	203	0.816	239	0.838	275	0.993	311	0.803	347	0.838
24	0.796	60	0.513	96	0.568	132	0.594	168	0.848	204	0.814	240	0.843	276	0.990	312	0.801	348	0.841
25	0.789	61	0.511	97	0.565	133	0.603	169	0.850	205	0.812	241	0.849	277	0.986	313	0.800	349	0.843
26	0.783	62	0.508	98	0.561	134	0.613	170	0.853	206	0.810	242	0.855	278	0.982	314	0.798	350	0.845
27	0.776	63	0.507	99	0.558	135	0.622	171	0.855	207	0.809	243	0.861	279	0.978	315	0.797	351	0.847
28	0.769	64	0.506	100	0.554	136	0.631	172	0.856	208	0.807	244	0.867	280	0.973	316	0.796	352	0.849
29	0.762	65	0.506	101	0.550	137	0.641	173	0.858	209	0.805	245	0.874	281	0.968	317	0.796	353	0.851
30	0.755	66	0.506	102	0.546	138	0.650	174	0.859	210	0.804	246	0.880	282	0.962	318	0.796	354	0.853
31	0.747	67	0.507	103	0.541	139	0.660	175	0.859	211	0.803	247	0.887	283	0.956	319	0.796	355	0.854
32	0.739	68	0.509	104	0.537	140	0.669	176	0.860	212	0.801	248	0.894	284	0.950	320	0.796	356	0.856
33	0.731	69	0.511	105	0.533	141	0.678	177	0.860	213	0.800	249	0.902	285	0.943	321	0.796	357	0.857
34	0.723	70	0.514	106	0.528	142	0.688	178	0.860	214	0.799	250	0.909	286	0.937	322	0.796	358	0.858
35	0.714	71	0.517	107	0.524	143	0.697	179	0.860	215	0.798	251	0.916	287	0.930	323	0.797	359	0.859

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## AZIMUTH PATTERN Vertical Polarization

Proposal No. C-71255-1  
 Date 15-Jan-19  
 Call Letters WVTW  
 Channel 27  
 Frequency 551 MHz  
 Antenna Type TFU-29ETT/VP-R 4C170  
 Gain 1.84 (2.65dB)  
 Calculated

Deg	Value																		
0	0.198	36	0.374	72	0.348	108	0.348	144	0.374	180	0.198	216	0.450	252	0.419	288	0.419	324	0.450
1	0.198	37	0.381	73	0.343	109	0.354	145	0.368	181	0.198	217	0.457	253	0.415	289	0.423	325	0.443
2	0.198	38	0.387	74	0.338	110	0.359	146	0.361	182	0.199	218	0.464	254	0.412	290	0.427	326	0.434
3	0.199	39	0.392	75	0.333	111	0.364	147	0.354	183	0.200	219	0.470	255	0.409	291	0.431	327	0.426
4	0.200	40	0.397	76	0.328	112	0.369	148	0.347	184	0.201	220	0.476	256	0.406	292	0.435	328	0.417
5	0.201	41	0.402	77	0.324	113	0.375	149	0.340	185	0.203	221	0.481	257	0.404	293	0.440	329	0.408
6	0.203	42	0.406	78	0.320	114	0.380	150	0.332	186	0.206	222	0.485	258	0.402	294	0.444	330	0.398
7	0.205	43	0.410	79	0.315	115	0.385	151	0.325	187	0.209	223	0.489	259	0.400	295	0.449	331	0.388
8	0.207	44	0.414	80	0.312	116	0.390	152	0.317	188	0.212	224	0.493	260	0.398	296	0.454	332	0.378
9	0.210	45	0.417	81	0.308	117	0.394	153	0.309	189	0.216	225	0.495	261	0.396	297	0.459	333	0.368
10	0.212	46	0.419	82	0.305	118	0.399	154	0.302	190	0.221	226	0.497	262	0.395	298	0.463	334	0.358
11	0.216	47	0.422	83	0.302	119	0.403	155	0.294	191	0.226	227	0.499	263	0.394	299	0.468	335	0.347
12	0.219	48	0.423	84	0.299	120	0.407	156	0.287	192	0.232	228	0.500	264	0.393	300	0.472	336	0.337
13	0.223	49	0.424	85	0.297	121	0.410	157	0.280	193	0.238	229	0.500	265	0.392	301	0.477	337	0.327
14	0.227	50	0.425	86	0.296	122	0.413	158	0.273	194	0.245	230	0.500	266	0.392	302	0.481	338	0.317
15	0.232	51	0.425	87	0.294	123	0.416	159	0.266	195	0.253	231	0.499	267	0.391	303	0.484	339	0.307
16	0.237	52	0.425	88	0.293	124	0.419	160	0.260	196	0.261	232	0.498	268	0.391	304	0.488	340	0.297
17	0.242	53	0.424	89	0.293	125	0.421	161	0.253	197	0.269	233	0.496	269	0.391	305	0.491	341	0.287
18	0.247	54	0.423	90	0.292	126	0.423	162	0.247	198	0.278	234	0.494	270	0.391	306	0.494	342	0.278
19	0.253	55	0.421	91	0.293	127	0.424	163	0.242	199	0.287	235	0.491	271	0.391	307	0.496	343	0.269
20	0.260	56	0.419	92	0.293	128	0.425	164	0.237	200	0.297	236	0.488	272	0.391	308	0.498	344	0.261
21	0.266	57	0.416	93	0.294	129	0.425	165	0.232	201	0.307	237	0.484	273	0.391	309	0.499	345	0.253
22	0.273	58	0.413	94	0.296	130	0.425	166	0.227	202	0.317	238	0.481	274	0.392	310	0.500	346	0.245
23	0.280	59	0.410	95	0.297	131	0.424	167	0.223	203	0.327	239	0.477	275	0.392	311	0.500	347	0.238
24	0.287	60	0.407	96	0.299	132	0.423	168	0.219	204	0.337	240	0.472	276	0.393	312	0.500	348	0.232
25	0.294	61	0.403	97	0.302	133	0.422	169	0.216	205	0.347	241	0.468	277	0.394	313	0.499	349	0.226
26	0.302	62	0.399	98	0.305	134	0.419	170	0.212	206	0.358	242	0.463	278	0.395	314	0.497	350	0.221
27	0.309	63	0.394	99	0.308	135	0.417	171	0.210	207	0.368	243	0.459	279	0.396	315	0.495	351	0.216
28	0.317	64	0.390	100	0.312	136	0.414	172	0.207	208	0.378	244	0.454	280	0.398	316	0.493	352	0.212
29	0.325	65	0.385	101	0.315	137	0.410	173	0.205	209	0.388	245	0.449	281	0.400	317	0.489	353	0.209
30	0.332	66	0.380	102	0.320	138	0.406	174	0.203	210	0.398	246	0.444	282	0.402	318	0.485	354	0.206
31	0.340	67	0.375	103	0.324	139	0.402	175	0.201	211	0.408	247	0.440	283	0.404	319	0.481	355	0.203
32	0.347	68	0.369	104	0.328	140	0.397	176	0.200	212	0.417	248	0.435	284	0.406	320	0.476	356	0.201
33	0.354	69	0.364	105	0.333	141	0.392	177	0.199	213	0.426	249	0.431	285	0.409	321	0.470	357	0.200
34	0.361	70	0.359	106	0.338	142	0.387	178	0.198	214	0.434	250	0.427	286	0.412	322	0.464	358	0.199
35	0.368	71	0.354	107	0.343	143	0.381	179	0.198	215	0.443	251	0.423	287	0.415	323	0.457	359	0.198

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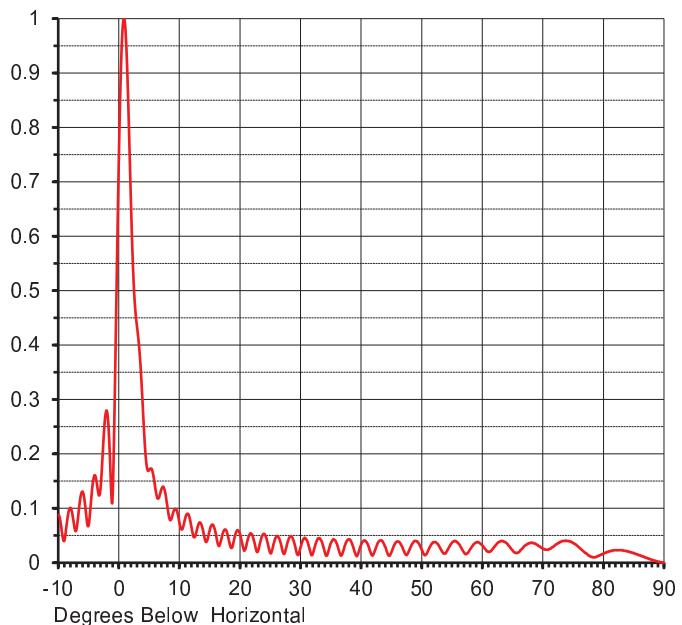
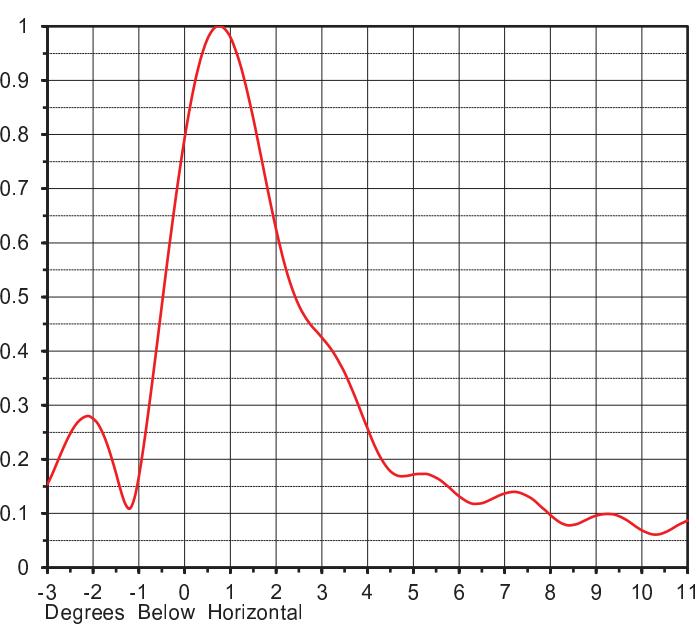
## ELEVATION PATTERN

Proposal No. **C-71255-1**  
 Date **15-Jan-19**  
 Call Letters **WVTW**  
 Channel **27**  
 Frequency **551 MHz**  
 Antenna Type **TFU-29ETT/VP-R 4C170**

RMS Directivity at Main Lobe  
 RMS Directivity at Horizontal

**24.6 ( 13.90 dB )**  
**15.5 ( 11.90 dB )**  
**Calculated**

Beam Tilt **0.75 deg**  
 Pattern Number **29E246075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.088	10.0	0.069	30.0	0.032	50.0	0.022	70.0	0.025
-9.0	0.045	11.0	0.087	31.0	0.040	51.0	0.023	71.0	0.025
-8.0	0.100	12.0	0.059	32.0	0.019	52.0	0.038	72.0	0.033
-7.0	0.067	13.0	0.069	33.0	0.045	53.0	0.026	73.0	0.039
-6.0	0.129	14.0	0.049	34.0	0.016	54.0	0.020	74.0	0.040
-5.0	0.074	15.0	0.064	35.0	0.038	55.0	0.038	75.0	0.036
-4.0	0.160	16.0	0.048	36.0	0.031	56.0	0.035	76.0	0.027
-3.0	0.154	17.0	0.052	37.0	0.023	57.0	0.017	77.0	0.018
-2.0	0.275	18.0	0.045	38.0	0.043	58.0	0.026	78.0	0.011
-1.0	0.169	19.0	0.046	39.0	0.015	59.0	0.038	79.0	0.012
0.0	<b>0.794</b>	20.0	0.049	40.0	0.036	60.0	0.031	80.0	0.017
1.0	0.980	21.0	0.034	41.0	0.034	61.0	0.020	81.0	0.021
2.0	0.625	22.0	0.049	42.0	0.017	62.0	0.031	82.0	0.023
3.0	0.425	23.0	0.026	43.0	0.041	63.0	0.040	83.0	0.023
4.0	0.257	24.0	0.052	44.0	0.026	64.0	0.035	84.0	0.021
5.0	0.172	25.0	0.017	45.0	0.022	65.0	0.021	85.0	0.017
6.0	0.132	26.0	0.049	46.0	0.039	66.0	0.020	86.0	0.013
7.0	0.137	27.0	0.019	47.0	0.021	67.0	0.032	87.0	0.009
8.0	0.097	28.0	0.045	48.0	0.027	68.0	0.037	88.0	0.005
9.0	0.096	29.0	0.031	49.0	0.040	69.0	0.033	89.0	0.002
								90.0	<b>0.000</b>

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## WVTW - MILWAUKEE, WISCONSIN

### Appendix A - Longley-Rice Interference Analysis

### SEPTEMBER, 2019

tvstudy v2.2.5 (4uoc83)  
Database: localhost, Study: WVTW 27 Mod CP 516C 29ETT 318H, Model: Longley-Rice  
Start: 2019.09.24 14:50:26

Study created: 2019.09.24 14:50:26

Study build station data: LMS TV 2019-09-24

Proposal: WVTW D27 DT APP MILWAUKEE, WI  
File number: WVTW 27 Mod CP 516C 29ETT 318H  
Facility ID: 74174  
Station data: User record  
Record ID: 847  
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	WPVN-CD	D26	DC	CP	CHICAGO, IL	BLANK0000080446	135.1 km
No	WCMU-TV	D26	DT	LIC	MOUNT PLEASANT, MI	BLEDT20130710ABN	229.2
Yes	WKOW	D26	DT	LIC	MADISON, WI	BLCDT20111006AAO	132.4
Yes	KFXA	D27	DT	LIC	CEDAR RAPIDS, IA	BLCDT20050713ABD	360.0
Yes	W40CN-D	D27	DC	CP	SUGAR GROVE, IL	BLANK0000034531	137.7
No	WTTV	D27	DT	CP	BLOOMINGTON, IN	BLANK0000034516	435.5
Yes	WNND-TV	D27	DT	CP	SOUTH BEND, IN	BLANK0000025267	216.3
No	WADL	D27	DT	CP	MOUNT CLEMENS, MI	BLANK0000027047	413.4
Yes	WHWC-TV	D27	DT	CP	MENOMONIE, WI	BLANK0000035676	383.2
Yes	WHWC-TV	D27	DT	LIC	MENOMONIE, WI	BLEDT20040824AAF	383.2
No	WEDE-CD	D28	DC	CP	ARLINGTON HEIGHTS, IL	BLANK0000028640	137.1
No	WSYM-TV	D28	DT	CP	LANSING, MI	BLANK0000026760	274.4
Yes	WISN-TV	D28	DT	CP	MILWAUKEE, WI	BLANK0000034528	2.5

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D27  
Latitude: 43 5 48.00 N (NAD83)  
Longitude: 87 54 18.00 W  
Height AMSL: 516.2 m  
HAAT: 318.0 m  
Peak ERP: 1000 kW  
Antenna: DIE-TFU-29ETT/VP-R 4C170 270 degs 0.0 deg  
Elev Pattn: Generic  
Elec Tilt: 0.75

40.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	740 kW	312.0 m	97.5 km
45.0	388	339.2	94.6
90.0	332	339.2	93.3
135.0	388	336.5	94.3

**Appendix A - Interference Analysis  
WVTW - Milwaukee, Wisconsin  
Channel 27 - 1000 kW - Page 2**

180.0	740	321.7	98.5
225.0	641	297.8	94.5
270.0	1000	298.2	98.6
315.0	641	299.3	94.7

Distance to Canadian border: 401.8 km

Distance to Mexican border: 1905.4 km

Conditions at FCC monitoring station: Allegan MI  
Bearing: 108.3 degrees Distance: 168.0 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 263.1 degrees Distance: 1472.9 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%

**Interference to BLCDT20111006AAO LIC scenario 1**

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance		
	WKOW	D26	DT	LIC	MADISON, WI	BLCDT20111006AAO			
Undesireds:	WVTW	D27	DT	BL	MILWAUKEE, WI	DTVBL74174	132.4 km		
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	132.4		
	WPNE-TV	D25	DT	LIC	GREEN BAY, WI	BLANK0000055599	194.4		
	WPVN-CD	D26	DC	CP	CHICAGO, IL	BLANK0000080446	202.7		
	WMBD-TV	D26	DT	CP	PEORIA, IL	BLANK0000027808	269.1		
	WCMU-TV	D26	DT	LIC	MOUNT PLEASANT, MI	BLEDT20130710ABN	357.4		
Service area		Terrain-limited			IX-free, before	IX-free, after	Percent New IX		
35002.9	1,918,224	34419.3	1,899,746	33647.5	1,776,993	33587.5	1,774,270	0.18	0.15
Undesired		Total IX			Unique IX, before	Unique IX, after			
WVTW D27 DT BL		411.3	106,925	327.2	87,473	387.2	90,196		
WVTW D27 DT APP		491.4	111,411			200.5	8,457		
WPVN-CD D26 DC CP		328.8	25,556	224.6	10,373	3,967	3,967		
WMBD-TV D26 DT CP		139.9	10,679	95.8	3,967	95.8	3,967		
WCMU-TV D26 DT LIC		31.9	6,973	8.0	177	11.9	330		

**Interference to BLCDT20050713ABD LIC scenario 1**

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance		
	KFXA	D27	DT	LIC	CEDAR RAPIDS, IA	BLCDT20050713ABD			
Undesireds:	WVTW	D27	DT	BL	MILWAUKEE, WI	DTVBL74174	360.0 km		
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	360.0		
	WHWC-TV	D27	DT	CP	MENOMONIE, WI	BLANK0000035676	329.1		
	WBXF-CD	D28z	DC	CP	DES MOINES, IA	BLANK0000035778	139.2		
Service area		Terrain-limited			IX-free, before	IX-free, after	Percent New IX		
34521.3	875,538	34276.7	874,070	34160.6	873,600	34152.6	873,569	0.02	0.00
Undesired		Total IX			Unique IX, before	Unique IX, after			
WVTW D27 DT BL		48.0	166	32.0	87	40.0	118		
WVTW D27 DT APP		56.0	197			39.9	114		
WHWC-TV D27 DT CP		56.0	193	39.9	114	28.1	190		
WBXF-CD D28z DC CP		28.1	190	28.1	190	28.1	190		

**Interference to BLCDT20050713ABD LIC scenario 2**

**Appendix A - Interference Analysis**  
**WVTW - Milwaukee, Wisconsin**  
**Channel 27 - 1000 kW - Page 3**

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance				
	KFXA	D27	DT	LIC	CEDAR RAPIDS, IA	BLCDT20050713ABD					
Undesireds:	WVTW	D27	DT	BL	MILWAUKEE, WI	DTVBL74174	360.0 km				
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	360.0				
	WHWC-TV	D27	DT	LIC	MENOMONIE, WI	BLEDT20040824AAF	329.1				
	WBXF-CD	D28z	DC	CP	DES MOINES, IA	BLANK0000035778	139.2				
Service area		Terrain-limited			IX-free, before	IX-free, after	Percent New IX				
34521.3	875,538	34276.7	874,070			34176.6	873,621	34168.6	873,590	0.02	0.00

Undesired	Total IX	Unique IX, before	Unique IX, after	
WVTW D27 DT BL	48.0	166	40.0	146
WVTW D27 DT APP	56.0	197	48.0	177
WHWC-TV D27 DT LIC	31.9	113	23.9	93
WBXF-CD D28z DC CP	28.1	190	28.1	190

-----  
**Interference to BLCDT20050713ABD LIC scenario 3**

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance				
	KFXA	D27	DT	LIC	CEDAR RAPIDS, IA	BLCDT20050713ABD					
Undesireds:	WVTW	D27	DT	BL	MILWAUKEE, WI	DTVBL74174	360.0 km				
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	360.0				
	WHWC-TV	D27	DT	CP	MENOMONIE, WI	BLANK0000035676	329.1				
	WBXF-CD	D28z	DC	LIC	DES MOINES, IA	BLANK0000005069	139.2				
Service area		Terrain-limited			IX-free, before	IX-free, after	Percent New IX				
34521.3	875,538	34276.7	874,070			34172.7	873,711	34164.7	873,680	0.02	0.00
Undesired	Total IX	Unique IX, before	Unique IX, after								
WVTW D27 DT BL	48.0	166	32.0	87							
WVTW D27 DT APP	56.0	197	40.0	118							
WHWC-TV D27 DT CP	56.0	193	39.9	114	39.9	114					
WBXF-CD D28z DC LIC	16.1	79	16.1	79	16.1	79					

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**Interference to BLCDT20050713ABD LIC scenario 4**

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance				
	KFXA	D27	DT	LIC	CEDAR RAPIDS, IA	BLCDT20050713ABD					
Undesireds:	WVTW	D27	DT	BL	MILWAUKEE, WI	DTVBL74174	360.0 km				
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	360.0				
	WHWC-TV	D27	DT	LIC	MENOMONIE, WI	BLEDT20040824AAF	329.1				
	WBXF-CD	D28z	DC	LIC	DES MOINES, IA	BLANK0000005069	139.2				
Service area		Terrain-limited			IX-free, before	IX-free, after	Percent New IX				
34521.3	875,538	34276.7	874,070			34188.7	873,732	34180.7	873,701	0.02	0.00
Undesired	Total IX	Unique IX, before	Unique IX, after								
WVTW D27 DT BL	48.0	166	40.0	146							
WVTW D27 DT APP	56.0	197	48.0	177							
WHWC-TV D27 DT LIC	31.9	113	23.9	93	23.9	93					
WBXF-CD D28z DC LIC	16.1	79	16.1	79	16.1	79					

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**Interference to BLANK0000034531 CP scenario 1**

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W40CN-D	D27	DC	CP	SUGAR GROVE, IL	BLANK0000034531	
Undesireds:	WVTW	D27	DT	BL	MILWAUKEE, WI	DTVBL74174	137.6 km
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	137.7
	WNDU-TV	D27	DT	CP	SOUTH BEND, IN	BLANK0000025267	147.2
	WEDE-CD	D28	DC	CP	ARLINGTON HEIGHTS, IL	BLANK0000028640	26.4

**Appendix A - Interference Analysis**  
**WVTW - Milwaukee, Wisconsin**  
**Channel 27 - 1000 kW - Page 4**

Service area	Terrain-limited		IX-free, before		IX-free, after		Percent New IX
3075.7	4,995,594	3075.7	4,995,594	2919.2	4,972,323	2911.2	4,972,323
Undesired			Total IX	Unique IX, before		Unique IX, after	
WVTW D27 DT BL	68.1		15,597	60.1	15,263	68.1	15,263
WVTW D27 DT APP	76.1		15,597			80.3	7,666
WNNDU-TV D27 DT CP	88.3		7,669	80.3	7,666	80.3	7,666
WEDE-CD D28 DC CP	12.1		342	4.0	5	4.0	5

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Interference to BLANK0000025267 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WNNDU-TV	D27	DT	CP	SOUTH BEND, IN	BLANK0000025267	
Undesireds:	WVTW	D27	DT	BL	MILWAUKEE, WI	DTVBL74174	216.2 km
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	216.3
	W40CN-D	D27	DC	CP	SUGAR GROVE, IL	BLANK0000034531	147.2
	WTWV	D27	DT	CP	BLOOMINGTON, IN	BLANK0000034516	244.4
	WADL	D27	DT	CP	MOUNT CLEMENS, MI	BLANK0000027047	293.9
	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	326.4
	WIWU-CD	D28	DC	CP	MARION, IN	BLANK0000033170	119.8

Service area	Terrain-limited		IX-free, before		IX-free, after		Percent New IX
29014.9	1,863,764	28919.0	1,835,398	28255.0	1,772,043	28219.0	1,770,607
Undesired			Total IX	Unique IX, before		Unique IX, after	
WVTW D27 DT BL	160.9		45,126	56.3	10,234	92.4	11,670
WVTW D27 DT APP	204.9		46,759			124.5	0
W40CN-D D27 DC CP	209.1		33,129	124.5	0	251.0	7,333
WTWV D27 DT CP	370.7		18,111	259.0	7,530	4.0	277
WADL D27 DT CP	12.0		1,412	4.0	277	4.0	277
WTTE D27 DT CP	16.1		3,931	0.0	0	0.0	0
WIWU-CD D28 DC CP	111.6		10,333	19.9	469	19.9	469

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Interference to BLANK0000035676 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHWC-TV	D27	DT	CP	MENOMONIE, WI	BLANK0000035676	
Undesireds:	WVTW	D27	DT	BL	MILWAUKEE, WI	DTVBL74174	383.3 km
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	383.2
	KXLT-TV	D26	DT	LIC	ROCHESTER, MN	BLANK0000063320	164.7
	KFXA	D27	DT	LIC	CEDAR RAPIDS, IA	BLCDT20050713ABD	329.1
	KCWV	D27	DT	APP	DULUTH, MN	BLANK0000036079	194.2
	KRWF	D27	DT	LIC	REDWOOD FALLS, MN	BLCDT20080502ABG	293.0
	WXOW	D28	DT	LIC	LA CROSSE, WI	BLANK0000058613	143.4

Service area	Terrain-limited		IX-free, before		IX-free, after		Percent New IX
28805.0	1,123,941	27987.8	1,091,281	27446.4	1,068,822	27446.4	1,068,822
Undesired			Total IX	Unique IX, before		Unique IX, after	
WVTW D27 DT BL	11.9		67	11.9	67	11.9	67
WVTW D27 DT APP	11.9		67			0.0	0
KXLT-TV D26 DT LIC	4.0		8	0.0	0	0.0	0
KFXA D27 DT LIC	51.9		565	31.9	540	31.9	540
KCWV D27 DT APP	473.5		15,077	449.5	4,220	449.5	4,220
KRWF D27 DT LIC	16.0		17,525	4.0	6,681	4.0	6,681
WXOW D28 DT LIC	28.0		99	16.0	94	16.0	94

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Interference to BLANK0000035676 CP scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHWC-TV	D27	DT	CP	MENOMONIE, WI	BLANK0000035676	

**Appendix A - Interference Analysis**  
**WVTW - Milwaukee, Wisconsin**  
**Channel 27 - 1000 kW - Page 5**

Undesireds:	WVTW	D27	DT	BL	MILWAUKEE, WI	DTVBL74174	383.3 km
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	383.2
	KXLT-TV	D26	DT	LIC	ROCHESTER, MN	BLANK0000063320	164.7
	KFXA	D27	DT	LIC	CEDAR RAPIDS, IA	BLCDT20050713ABD	329.1
	KCWV	D27	DT	LIC	DULUTH, MN	BLANK000004652	194.2
	KRWF	D27	DT	LIC	REDWOOD FALLS, MN	BLCDT20080502ABG	293.0
	WXOW	D28	DT	LIC	LA CROSSE, WI	BLANK0000058613	143.4
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
28805.0	1,123,941	27987.8	1,091,281	27848.2	1,072,610	27848.2	1,072,610
0.00	0.00						
Undesired			Total IX	Unique IX, before	Unique IX, after		
WVTW D27 DT BL		11.9	67	11.9	67		
WVTW D27 DT APP		11.9	67			11.9	67
KXLT-TV D26 DT LIC		4.0	8	0.0	0	0.0	0
KFXA D27 DT LIC		51.9	565	31.9	540	31.9	540
KCWV D27 DT LIC		47.7	432	47.7	432	47.7	432
KRWF D27 DT LIC		16.0	17,525	12.1	17,513	12.1	17,513
WXOW D28 DT LIC		28.0	99	16.0	94	16.0	94
<hr/>							
Interference to BLEDT20040824AAF LIC scenario 1							
Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WHWC-TV	D27	DT	LIC	MENOMONIE, WI	BLEDT20040824AAF	
<hr/>							
Undesireds:	WVTW	D27	DT	BL	MILWAUKEE, WI	DTVBL74174	383.3 km
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	383.2
	KFXA	D27	DT	LIC	CEDAR RAPIDS, IA	BLCDT20050713ABD	329.1
	KCWV	D27	DT	APP	DULUTH, MN	BLANK0000036079	194.2
	KRWF	D27	DT	LIC	REDWOOD FALLS, MN	BLCDT20080502ABG	293.0
	WXOW	D28	DT	LIC	LA CROSSE, WI	BLANK0000058613	143.4
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
27224.4	994,710	26435.1	946,335	25925.4	925,162	25925.4	925,162
0.00	0.00						
Undesired			Total IX	Unique IX, before	Unique IX, after		
WVTW D27 DT BL		11.9	41	4.0	11		
WVTW D27 DT APP		8.0	30			4.0	11
KFXA D27 DT LIC		31.9	337	8.0	3	8.0	3
KCWV D27 DT APP		457.7	4,393	429.8	4,116	433.7	4,127
KRWF D27 DT LIC		20.0	16,645	16.1	16,558	16.1	16,558
WXOW D28 DT LIC		24.0	150	20.0	121	20.0	121
<hr/>							
Interference to BLEDT20040824AAF LIC scenario 2							
Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WHWC-TV	D27	DT	LIC	MENOMONIE, WI	BLEDT20040824AAF	
<hr/>							
Undesireds:	WVTW	D27	DT	BL	MILWAUKEE, WI	DTVBL74174	383.3 km
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	383.2
	KFXA	D27	DT	LIC	CEDAR RAPIDS, IA	BLCDT20050713ABD	329.1
	KCWV	D27	DT	LIC	DULUTH, MN	BLANK000004652	194.2
	KRWF	D27	DT	LIC	REDWOOD FALLS, MN	BLCDT20080502ABG	293.0
	WXOW	D28	DT	LIC	LA CROSSE, WI	BLANK0000058613	143.4
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
27224.4	994,710	26435.1	946,335	26315.4	929,057	26319.4	929,068
-0.02	-0.00						
Undesired			Total IX	Unique IX, before	Unique IX, after		
WVTW D27 DT BL		11.9	41	11.9	41		
WVTW D27 DT APP		8.0	30			8.0	30
KFXA D27 DT LIC		31.9	337	23.9	221	23.9	221
KCWV D27 DT LIC		39.8	221	39.8	221	39.8	221
KRWF D27 DT LIC		20.0	16,645	16.1	16,558	16.1	16,558
WXOW D28 DT LIC		24.0	150	20.0	121	20.0	121

**Appendix A - Interference Analysis**  
**WVTW - Milwaukee, Wisconsin**  
**Channel 27 - 1000 kW - Page 6**

**Interference to BLANK0000034528 CP scenario 1**

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WISN-TV	D28	DT	CP	MILWAUKEE, WI	BLANK0000034528	
Undesireds:	WVTW	D27	DT	BL	MILWAUKEE, WI	DTVBL74174	2.6 km
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	2.5
	WEDE-CD	D28	DC	CP	ARLINGTON HEIGHTS, IL	BLANK0000028640	139.1
	WYZZ-TV	D28	DT	LIC	BLOOMINGTON, IL	BLCDT20060609ABE	293.0
	WYOW	D28	DT	LIC	EAGLE RIVER, WI	BLCDT20121005AAF	314.0
	WXOW	D28	DT	LIC	LA CROSSE, WI	BLANK0000058613	288.0
	WDJT-TV	D29	DT	CP	MILWAUKEE, WI	BLANK0000076654	0.2
Service area							
26412.0	3,003,636	26255.6	2,997,695	25979.4	2,977,684	25979.4	2,977,684
Undesired				Total IX	Unique IX, before	Unique IX, after	
WVTW D27 DT BL			0.0	0	0.0	0	
WVTW D27 DT APP			8.0	248		0.0	0
WEDE-CD D28 DC CP			8.0	2,435	0.0	0.0	0
WYZZ-TV D28 DT LIC			136.2	8,886	116.3	6,293	116.3
WYOW D28 DT LIC			24.1	6,699	0.0	0	0.0
WXOW D28 DT LIC			72.1	7,089	40.0	273	40.0
WDJT-TV D29 DT CP			79.8	4,194	75.8	4,153	67.9
							3,905

**Interference to BLANK0000034528 CP scenario 2**

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WISN-TV	D28	DT	CP	MILWAUKEE, WI	BLANK0000034528	
Undesireds:	WVTW	D27	DT	BL	MILWAUKEE, WI	DTVBL74174	2.6 km
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	2.5
	WEDE-CD	D28	DC	CP	ARLINGTON HEIGHTS, IL	BLANK0000028640	139.1
	WYZZ-TV	D28	DT	LIC	BLOOMINGTON, IL	BLCDT20060609ABE	293.0
	WYOW	D28	DT	APP	EAGLE RIVER, WI	BPCDT20121019AAE	314.0
	WXOW	D28	DT	LIC	LA CROSSE, WI	BLANK0000058613	288.0
	WDJT-TV	D29	DT	CP	MILWAUKEE, WI	BLANK0000076654	0.2
Service area							
26412.0	3,003,636	26255.6	2,997,695	25979.4	2,977,684	25979.4	2,977,684
Undesired				Total IX	Unique IX, before	Unique IX, after	
WVTW D27 DT BL			0.0	0	0.0	0	
WVTW D27 DT APP			8.0	248		0.0	0
WEDE-CD D28 DC CP			8.0	2,435	0.0	0.0	0
WYZZ-TV D28 DT LIC			136.2	8,886	116.3	6,293	116.3
WYOW D28 DT APP			24.1	6,699	0.0	0	0.0
WXOW D28 DT LIC			72.1	7,089	40.0	273	40.0
WDJT-TV D29 DT CP			79.8	4,194	75.8	4,153	67.9
							3,905

**Interference to proposal scenario 1**

3.30% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	
Undesireds:	WKOW	D26	DT	LIC	MADISON, WI	BLCDT20111006AAO	132.4 km
	KFXA	D27	DT	LIC	CEDAR RAPIDS, IA	BLCDT20050713ABD	360.0
	W40CN-D	D27	DC	CP	SUGAR GROVE, IL	BLANK0000034531	137.7
	WNDU-TV	D27	DT	CP	SOUTH BEND, IN	BLANK0000025267	216.3
	WHWC-TV	D27	DT	CP	MENOMONIE, WI	BLANK0000035676	383.2
	WISN-TV	D28	DT	CP	MILWAUKEE, WI	BLANK0000034528	2.5
Service area							
28713.0	3,081,862	28576.6	3,073,983	27294.5	2,972,555	4.49	3.30

**Appendix A - Interference Analysis**  
**WVTW - Milwaukee, Wisconsin**  
**Channel 27 - 1000 kW - Page 7**

Undesired	Total IX	Unique IX	Prcnt	Unique IX
WKOW D26 DT LIC	745.6	29,806	666.1	26,572 2.33 0.86
KFXA D27 DT LIC	8.0	1,409	4.0	1,337 0.01 0.04
W40CN-D D27 DC CP	135.7	49,515	87.8	15,443 0.31 0.50
WNDU-TV D27 DT CP	496.2	57,445	376.8	20,300 1.32 0.66
WHWC-TV D27 DT CP	12.0	78	8.1	60 0.03 0.00
WISN-TV D28 DT CP	39.7	887	7.9	338 0.03 0.01

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Interference to proposal scenario 2

3.30% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WVTW	D27	DT	APP	MILWAUKEE, WI	WVTW 27 Mod CP 516C 29	
Undesireds:	WKOW	D26	DT	LIC	MADISON, WI	BLCDT20111006AAO	132.4 km
	KFXA	D27	DT	LIC	CEDAR RAPIDS, IA	BLCDT20050713ABD	360.0
	W40CN-D	D27	DC	CP	SUGAR GROVE, IL	BLANK0000034531	137.7
	WNDU-TV	D27	DT	CP	SOUTH BEND, IN	BLANK0000025267	216.3
	WHWC-TV	D27	DT	LIC	MENOMONIE, WI	BLEDT20040824AAF	383.2
	WISN-TV	D28	DT	CP	MILWAUKEE, WI	BLANK0000034528	2.5
Service area					Terrain-limited	IX-free	Percent IX
28713.0	3,081,862	28576.6	3,073,983	27294.5	2,972,555	4.49	3.30
Undesired					Total IX	Unique IX	Prcnt Unique IX
WKOW D26 DT LIC		745.6	29,806	666.1	26,572	2.33	0.86
KFXA D27 DT LIC		8.0	1,409	4.0	1,337	0.01	0.04
W40CN-D D27 DC CP		135.7	49,515	87.8	15,443	0.31	0.50
WNDU-TV D27 DT CP		496.2	57,445	376.8	20,300	1.32	0.66
WHWC-TV D27 DT LIC		12.0	78	8.1	60	0.03	0.00
WISN-TV D28 DT CP		39.7	887	7.9	338	0.03	0.01



## ENVIRONMENTAL AND RADIO FREQUENCY SAFETY

The predicted emissions of WVTW must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For WVTW, which will operate on television Channel 27 (548-554 MHZ), the MPE is 367.33 microwatts per centimeter squared ( $\mu\text{W}/\text{cm}^2$ ) in an “uncontrolled” environment and 1,836.7  $\mu\text{W}/\text{cm}^2$  in a “controlled” environment. The proposed WVTW facility will operate with a maximum ERP of 1000 kW from an elliptically polarized directional transmitting antenna with a centerline height of 323.9 meters above ground level (AGL). As shown on the vertical elevation pattern submitted elsewhere in this application, the relative field of the proposed antenna does not exceed a value of 0.100 at any downward direction greater than 7 degrees below the horizontal. Therefore, considering this worst-case downward relative field, the WVTW is predicted to produce a maximum power density of only 0.780 microwatts per square centimeter toward a distance which is 86.3 meters from the tower base. This represents only 0.21% of the FCC Guideline value of 367.33 microwatts per square centimeter for uncontrolled RFR environments. Pursuant to Section 1.1307(b)(3) of the FCC Rules, because the proposed facility would not exceed 5% of the uncontrolled and controlled exposure limit, the proposal's power density contribution is insignificant.

Further, the Applicant will continue to cooperate/coordinate with other site users and reduce power and/or cease operation during times of service or maintenance of the transmission systems as necessary to avoid potentially harmful exposure to personnel.