



**STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN APPLICATION FOR
POST REPACK CONSTRUCTION PERMIT
WRSP-TV - SPRINGFIELD, ILLINOIS
DTV - CH. 16 - 185 kW - 415 m HAAT**

Prepared for: GOCOM MEDIA OF ILLINOIS, LLC

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 GOCOM MEDIA OF ILLINOIS, LLC, licensee of WRSP-TV, channel 44, facility ID number 62009, licensed to Springfield, Illinois, 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 for DTV channel 44 with new DTV channel 16 to be used by WRSP-TV for its post-reassignment broadcasting.

**STATEMENT OF JOHN E. HIDLE, P.E.
WRSP-TV - Springfield, Illinois
PAGE 2**

OMNI-DIRECTIONAL ANTENNA

The applicant proposes to install a new Dielectric model TFU-26DSC/VP-R O4 elliptically polarized omni-directional transmitting antenna with its center of radiation located at a height above ground of 407 meters, and a height above average terrain of 415 meters. The antenna manufacturer's omni-directional 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 (38.94 dBu) contour, and the principal community (48 dBu) contour. which completely encompasses the principal community of license, Springfield, Illinois.

**STATEMENT OF JOHN E. HIDLE, P.E.
WRSP-TV - Springfield, Illinois
PAGE 3**

ALLOCATION CONSIDERATIONS

Post-Transition DTV Considerations

A study was performed, using the FCC's software, tv_study, v. 2.2.2, 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. The study also shows that WRSP-TV's proposed service area is within the baseline plus 1%. (See Appendix B)

International DTV Considerations

The WRSP-TV site is located more than 500 kilometers from the nearest points on both the US/Canadian and US/Mexican borders. Therefore there are no international considerations.

BLANKETING AND INTERMODULATION INTERFERENCE

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

STATEMENT OF JOHN E. HIDLE, P.E.

WRSP-TV - Springfield, Illinois

PAGE 4

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 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 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 TV stations, is determined, in $\mu\text{W}/\text{cm}^2$, for an "uncontrolled" environment by dividing the operating frequency in MHZ by 1.500, and is similarly determined for a "controlled" environment by

**STATEMENT OF JOHN E. HIDLE, P.E.
WRSP-TV - Springfield, Illinois
PAGE 5**

dividing the operating frequency in MHZ by 0.300.

The predicted emissions of WRSP-TV must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For WRSP-TV, which will operate on television Channel 16 (482-488 MHZ), the MPE is 323.33 microwatts per centimeter squared ($\mu\text{W}/\text{cm}^2$) in an "uncontrolled" environment and 1,616.7 $\mu\text{W}/\text{cm}^2$ in a "controlled" environment. The proposed WRSP-TV facility will operate with a maximum ERP of 185 kW from an elliptically polarized directional transmitting antenna with a centerline height of 407 meters above ground level (AGL). Considering a predicted vertical plane relative field factor of 0.300 the WRSP-TV facility is predicted to produce a power density at two meters above ground level of 6.783 $\mu\text{W}/\text{cm}^2$, which is 2.10% of the FCC guideline value for an "uncontrolled" environment, and 0.420% of the FCC's guideline value for "controlled" environments. There are no other broadcast facilities that are located at the WRSP-TV site. The total estimated percentage of the ANSI value at the proposed site is only that of WRSP-TV, which is 2.10% of the limit applicable to "uncontrolled" environments, and 0.42% of the limit for "controlled" environments. (See Appendix A)

OCCUPATIONAL SAFETY

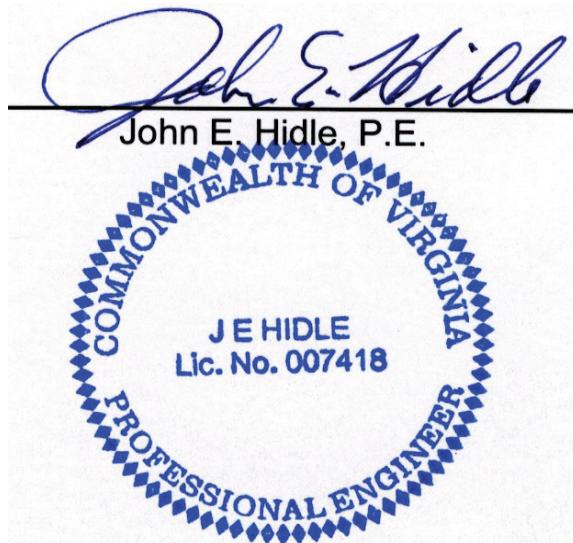
The licensee of WRSP-TV is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WRSP-TV antenna, and is committed to reducing power or ceasing operation during times of maintenance of the transmission systems, when necessary, to ensure protection to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

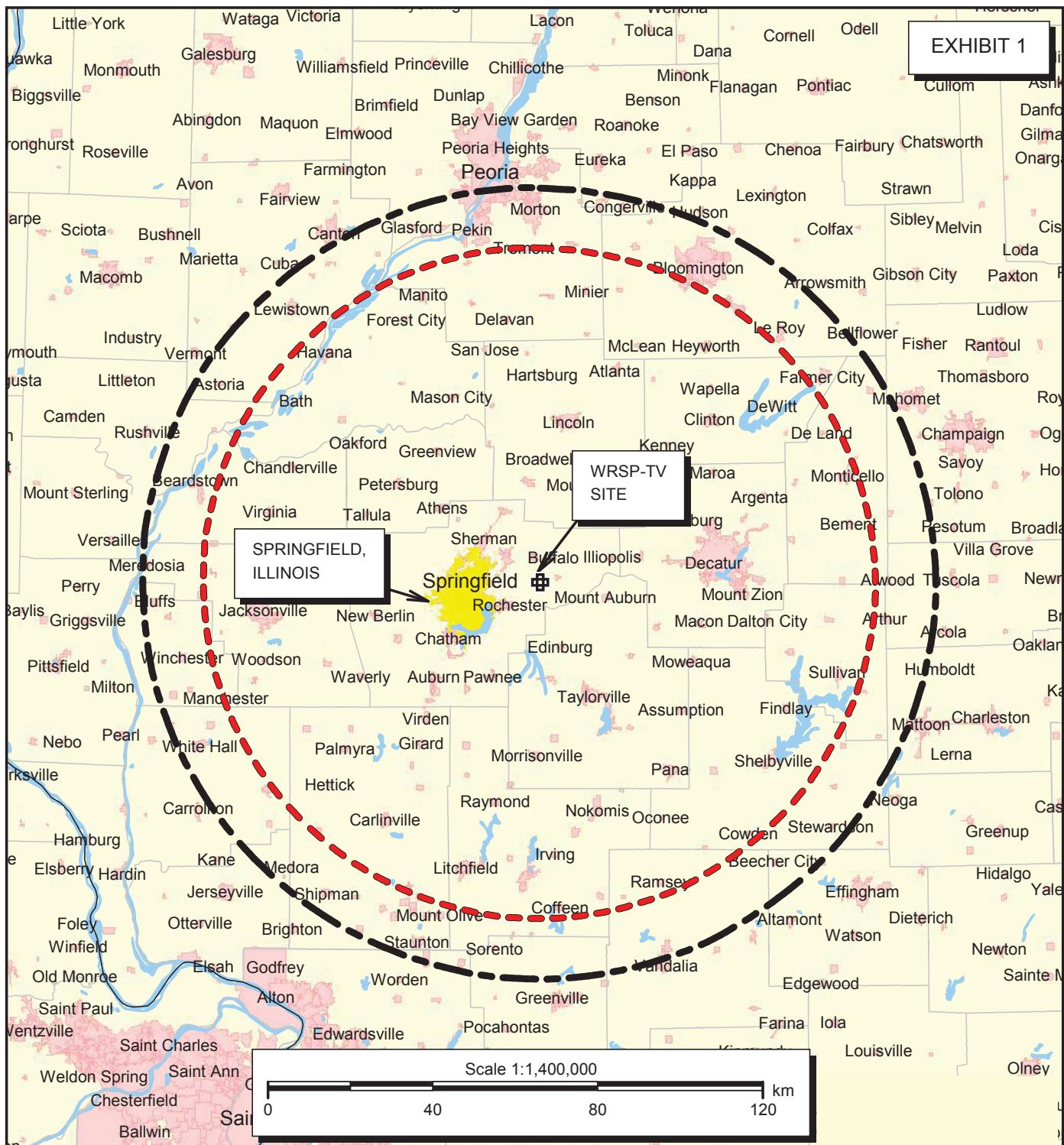
**STATEMENT OF JOHN E. HIDLE, P.E.
WRSP-TV - Springfield, Illinois
PAGE 6**

SUMMARY

It is submitted that the instant application for construction permit to change WRSP-TV from channel 44 to channel 16, 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: June 30, 2017





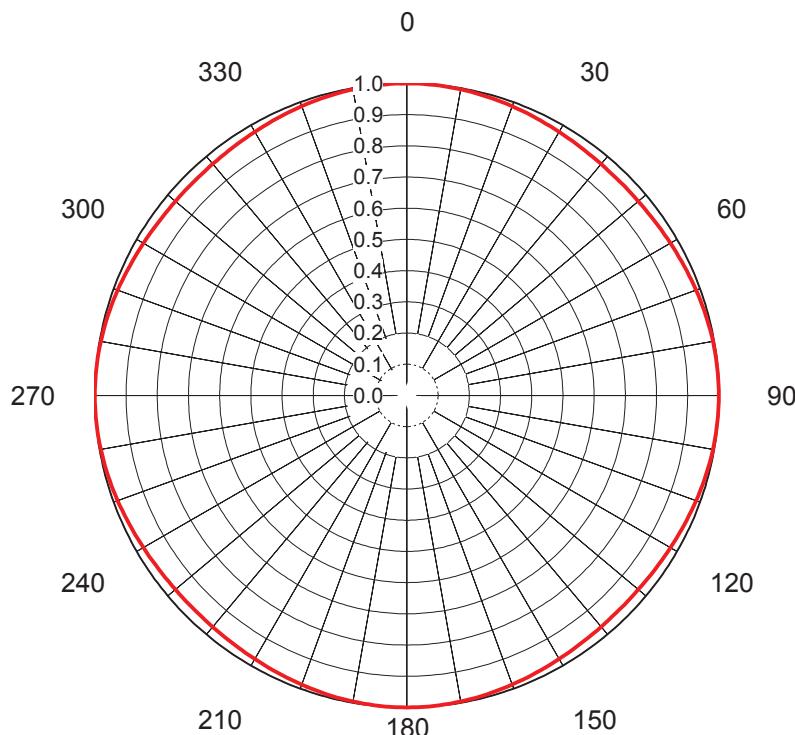
PREDICTED COVERAGE CONTOURS

WRSP-TV - SPRINGFIELD, ILLINOIS
DTV Channel 16 - 185 kW ERP - 415 M HAAT
JUNE, 2017

Predicted Noise Limited 38.94 dBu
F(50,90) Coverage Contour



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



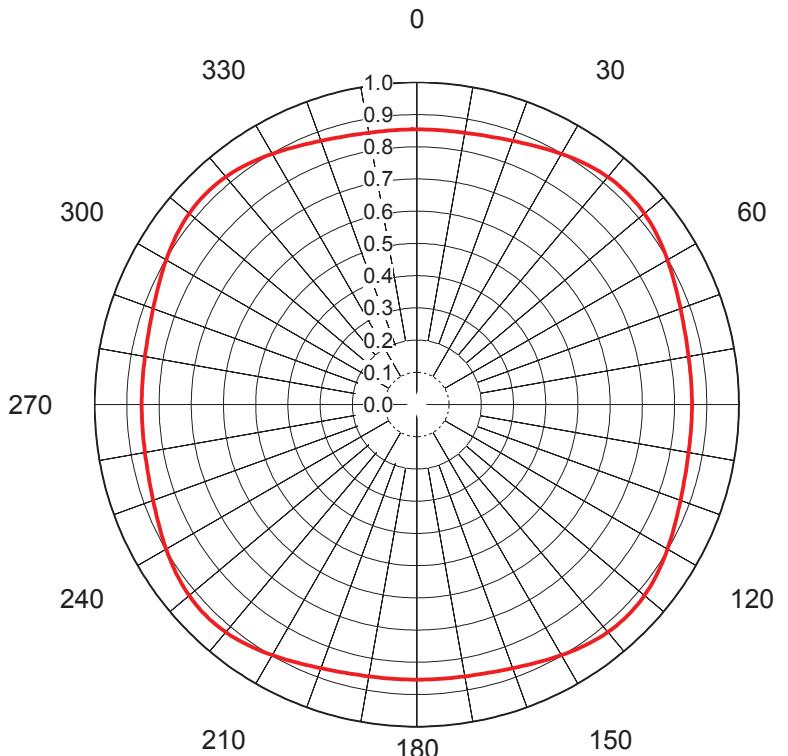
AZIMUTH PATTERN Horizontal Polarization

In Free Space

Proposal No.	C-70556
Date	20-Mar-17
Call Letters	WRSP
Channel	16
Frequency	485 MHz
Antenna Type	TFU-26DSC/VP-R 04
Gain	1.03 (0.14dB)
Calculated	
Circularity	+/- 1.0 dB

Deg	Value																		
0	1.000	36	0.970	72	0.989	108	0.989	144	0.970	180	1.000	216	0.970	252	0.989	288	0.989	324	0.970
1	1.000	37	0.970	73	0.990	109	0.988	145	0.971	181	1.000	217	0.970	253	0.990	289	0.988	325	0.971
2	1.000	38	0.969	74	0.991	110	0.986	146	0.972	182	1.000	218	0.969	254	0.991	290	0.986	326	0.972
3	1.000	39	0.969	75	0.992	111	0.985	147	0.973	183	1.000	219	0.969	255	0.992	291	0.985	327	0.973
4	0.999	40	0.968	76	0.993	112	0.984	148	0.974	184	0.999	220	0.968	256	0.993	292	0.984	328	0.974
5	0.999	41	0.968	77	0.994	113	0.983	149	0.974	185	0.999	221	0.968	257	0.994	293	0.983	329	0.974
6	0.999	42	0.968	78	0.995	114	0.982	150	0.975	186	0.999	222	0.968	258	0.995	294	0.982	330	0.975
7	0.998	43	0.968	79	0.995	115	0.981	151	0.976	187	0.998	223	0.968	259	0.995	295	0.981	331	0.976
8	0.997	44	0.967	80	0.996	116	0.980	152	0.977	188	0.997	224	0.967	260	0.996	296	0.980	332	0.977
9	0.997	45	0.967	81	0.997	117	0.979	153	0.979	189	0.997	225	0.967	261	0.997	297	0.979	333	0.979
10	0.996	46	0.967	82	0.997	118	0.977	154	0.980	190	0.996	226	0.967	262	0.997	298	0.977	334	0.980
11	0.995	47	0.968	83	0.998	119	0.976	155	0.981	191	0.995	227	0.968	263	0.998	299	0.976	335	0.981
12	0.995	48	0.968	84	0.999	120	0.975	156	0.982	192	0.995	228	0.968	264	0.999	300	0.975	336	0.982
13	0.994	49	0.968	85	0.999	121	0.974	157	0.983	193	0.994	229	0.968	265	0.999	301	0.974	337	0.983
14	0.993	50	0.968	86	0.999	122	0.974	158	0.984	194	0.993	230	0.968	266	0.999	302	0.974	338	0.984
15	0.992	51	0.969	87	1.000	123	0.973	159	0.985	195	0.992	231	0.969	267	1.000	303	0.973	339	0.985
16	0.991	52	0.969	88	1.000	124	0.972	160	0.986	196	0.991	232	0.969	268	1.000	304	0.972	340	0.986
17	0.990	53	0.970	89	1.000	125	0.971	161	0.988	197	0.990	233	0.970	269	1.000	305	0.971	341	0.988
18	0.989	54	0.970	90	1.000	126	0.970	162	0.989	198	0.989	234	0.970	270	1.000	306	0.970	342	0.989
19	0.988	55	0.971	91	1.000	127	0.970	163	0.990	199	0.988	235	0.971	271	1.000	307	0.970	343	0.990
20	0.986	56	0.972	92	1.000	128	0.969	164	0.991	200	0.986	236	0.972	272	1.000	308	0.969	344	0.991
21	0.985	57	0.973	93	1.000	129	0.969	165	0.992	201	0.985	237	0.973	273	1.000	309	0.969	345	0.992
22	0.984	58	0.974	94	0.999	130	0.968	166	0.993	202	0.984	238	0.974	274	0.999	310	0.968	346	0.993
23	0.983	59	0.974	95	0.999	131	0.968	167	0.994	203	0.983	239	0.974	275	0.999	311	0.968	347	0.994
24	0.982	60	0.975	96	0.999	132	0.968	168	0.995	204	0.982	240	0.975	276	0.999	312	0.968	348	0.995
25	0.981	61	0.976	97	0.998	133	0.968	169	0.995	205	0.981	241	0.976	277	0.998	313	0.968	349	0.995
26	0.980	62	0.977	98	0.997	134	0.967	170	0.996	206	0.980	242	0.977	278	0.997	314	0.967	350	0.996
27	0.979	63	0.979	99	0.997	135	0.967	171	0.997	207	0.979	243	0.979	279	0.997	315	0.967	351	0.997
28	0.977	64	0.980	100	0.996	136	0.967	172	0.997	208	0.977	244	0.980	280	0.996	316	0.967	352	0.997
29	0.976	65	0.981	101	0.995	137	0.968	173	0.998	209	0.976	245	0.981	281	0.995	317	0.968	353	0.998
30	0.975	66	0.982	102	0.995	138	0.968	174	0.999	210	0.975	246	0.982	282	0.995	318	0.968	354	0.999
31	0.974	67	0.983	103	0.994	139	0.968	175	0.999	211	0.974	247	0.983	283	0.994	319	0.968	355	0.999
32	0.974	68	0.984	104	0.993	140	0.968	176	0.999	212	0.974	248	0.984	284	0.993	320	0.968	356	0.999
33	0.973	69	0.985	105	0.992	141	0.969	177	1.000	213	0.973	249	0.985	285	0.992	321	0.969	357	1.000
34	0.972	70	0.986	106	0.991	142	0.969	178	1.000	214	0.972	250	0.986	286	0.991	322	0.969	358	1.000
35	0.971	71	0.988	107	0.990	143	0.970	179	1.000	215	0.971	251	0.988	287	0.990	323	0.970	359	1.000

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.



AZIMUTH PATTERN Vertical Polarization

In Free Space

Proposal No.	C-70556
Date	20-Mar-17
Call Letters	WRSP
Channel	16
Frequency	485 MHz
Antenna Type	TFU-26DSC/VP-R 04
Gain	1.1 (0.41dB)
Calculated	
Circularity	+/- 1.0 dB

Deg	Value																						
0	0.854	36	0.915	72	0.867	108	0.867	144	0.915	180	0.854	216	0.915	252	0.867	288	0.867	324	0.915				
1	0.854	37	0.917	73	0.865	109	0.869	145	0.912	181	0.854	217	0.917	253	0.865	289	0.869	325	0.912				
2	0.854	38	0.919	74	0.863	110	0.871	146	0.910	182	0.854	218	0.919	254	0.863	290	0.871	326	0.910				
3	0.854	39	0.921	75	0.862	111	0.873	147	0.907	183	0.854	219	0.921	255	0.862	291	0.873	327	0.907				
4	0.854	40	0.922	76	0.861	112	0.876	148	0.904	184	0.854	220	0.922	256	0.861	292	0.876	328	0.904				
5	0.855	41	0.924	77	0.859	113	0.878	149	0.901	185	0.855	221	0.924	257	0.859	293	0.878	329	0.901				
6	0.855	42	0.925	78	0.858	114	0.881	150	0.898	186	0.855	222	0.925	258	0.858	294	0.881	330	0.898				
7	0.855	43	0.925	79	0.858	115	0.884	151	0.895	187	0.855	223	0.925	259	0.858	295	0.884	331	0.895				
8	0.856	44	0.926	80	0.857	116	0.886	152	0.892	188	0.856	224	0.926	260	0.857	296	0.886	332	0.892				
9	0.856	45	0.926	81	0.856	117	0.889	153	0.889	189	0.856	225	0.926	261	0.856	297	0.889	333	0.889				
10	0.857	46	0.926	82	0.856	118	0.892	154	0.886	190	0.857	226	0.926	262	0.856	298	0.892	334	0.886				
11	0.858	47	0.925	83	0.855	119	0.895	155	0.884	191	0.858	227	0.925	263	0.855	299	0.895	335	0.884				
12	0.858	48	0.925	84	0.855	120	0.898	156	0.881	192	0.858	228	0.925	264	0.855	300	0.898	336	0.881				
13	0.859	49	0.924	85	0.855	121	0.901	157	0.878	193	0.859	229	0.924	265	0.855	301	0.901	337	0.878				
14	0.861	50	0.922	86	0.854	122	0.904	158	0.876	194	0.861	230	0.922	266	0.854	302	0.904	338	0.876				
15	0.862	51	0.921	87	0.854	123	0.907	159	0.873	195	0.862	231	0.921	267	0.854	303	0.907	339	0.873				
16	0.863	52	0.919	88	0.854	124	0.910	160	0.871	196	0.863	232	0.919	268	0.854	304	0.910	340	0.871				
17	0.865	53	0.917	89	0.854	125	0.912	161	0.869	197	0.865	233	0.917	269	0.854	305	0.912	341	0.869				
18	0.867	54	0.915	90	0.854	126	0.915	162	0.867	198	0.867	234	0.915	270	0.854	306	0.915	342	0.867				
19	0.869	55	0.912	91	0.854	127	0.917	163	0.865	199	0.869	235	0.912	271	0.854	307	0.917	343	0.865				
20	0.871	56	0.910	92	0.854	128	0.919	164	0.863	200	0.871	236	0.910	272	0.854	308	0.919	344	0.863				
21	0.873	57	0.907	93	0.854	129	0.921	165	0.862	201	0.873	237	0.907	273	0.854	309	0.921	345	0.862				
22	0.876	58	0.904	94	0.854	130	0.922	166	0.861	202	0.876	238	0.904	274	0.854	310	0.922	346	0.861				
23	0.878	59	0.901	95	0.855	131	0.924	167	0.859	203	0.878	239	0.901	275	0.855	311	0.924	347	0.859				
24	0.881	60	0.898	96	0.855	132	0.925	168	0.858	204	0.881	240	0.898	276	0.855	312	0.925	348	0.858				
25	0.884	61	0.895	97	0.855	133	0.925	169	0.858	205	0.884	241	0.895	277	0.855	313	0.925	349	0.858				
26	0.886	62	0.892	98	0.856	134	0.926	170	0.857	206	0.886	242	0.892	278	0.856	314	0.926	350	0.857				
27	0.889	63	0.889	99	0.856	135	0.926	171	0.856	207	0.889	243	0.889	279	0.856	315	0.926	351	0.856				
28	0.892	64	0.886	100	0.857	136	0.926	172	0.856	208	0.892	244	0.886	280	0.857	316	0.926	352	0.856				
29	0.895	65	0.884	101	0.858	137	0.925	173	0.855	209	0.895	245	0.884	281	0.858	317	0.925	353	0.855				
30	0.898	66	0.881	102	0.858	138	0.925	174	0.855	210	0.898	246	0.881	282	0.858	318	0.925	354	0.855				
31	0.901	67	0.878	103	0.859	139	0.924	175	0.855	211	0.901	247	0.878	283	0.859	319	0.924	355	0.855				
32	0.904	68	0.876	104	0.861	140	0.922	176	0.854	212	0.904	248	0.876	284	0.861	320	0.922	356	0.854				
33	0.907	69	0.873	105	0.862	141	0.921	177	0.854	213	0.907	249	0.873	285	0.862	321	0.921	357	0.854				
34	0.910	70	0.871	106	0.863	142	0.919	178	0.854	214	0.910	250	0.871	286	0.863	322	0.919	358	0.854				
35	0.912	71	0.869	107	0.865	143	0.917	179	0.854	215	0.912	251	0.869	287	0.865	323	0.917	359	0.854				

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

ELEVATION PATTERN

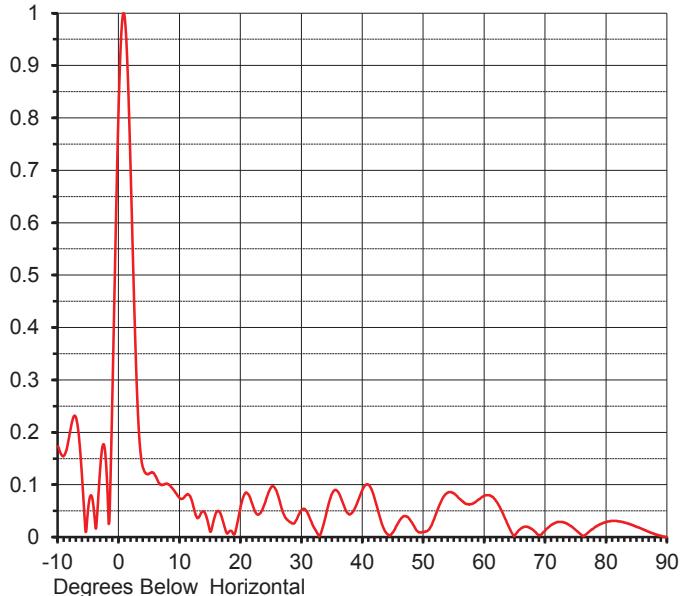
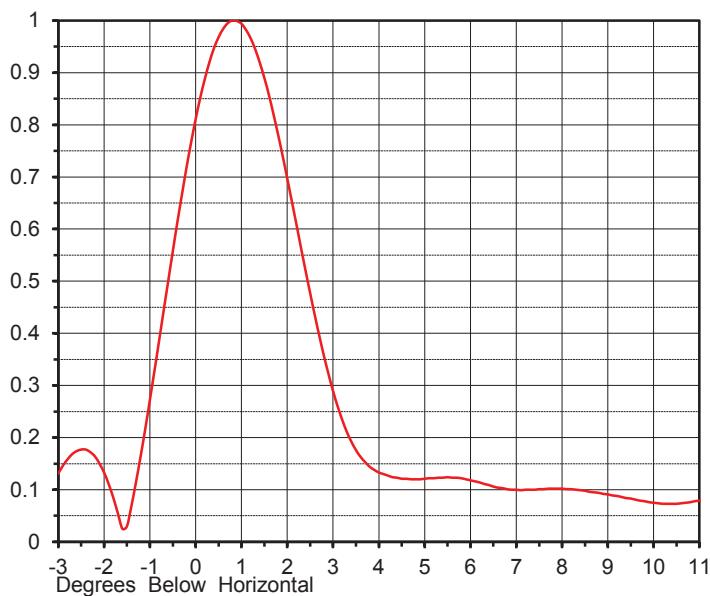
Proposal No. **C-70556**
 Date **20-Mar-17**
 Call Letters **WRSP**
 Channel **16**
 Frequency **485 MHz**
 Antenna Type **TFU-26DSC/VP-R 04**

RMS Directivity at Main Lobe
 RMS Directivity at Horizontal

22.5 (13.52 dB)
16.3 (12.12 dB)

Calculated

Beam Tilt **0.75 deg**
 Pattern Number **26Q225075**



Angle	Field								
-10.0	0.173	10.0	0.074	30.0	0.052	50.0	0.010	70.0	0.014
-9.0	0.156	11.0	0.080	31.0	0.044	51.0	0.017	71.0	0.024
-8.0	0.204	12.0	0.067	32.0	0.018	52.0	0.044	72.0	0.029
-7.0	0.225	13.0	0.037	33.0	0.004	53.0	0.072	73.0	0.028
-6.0	0.100	14.0	0.048	34.0	0.045	54.0	0.085	74.0	0.022
-5.0	0.062	15.0	0.010	35.0	0.084	55.0	0.083	75.0	0.013
-4.0	0.035	16.0	0.048	36.0	0.085	56.0	0.072	76.0	0.003
-3.0	0.146	17.0	0.032	37.0	0.057	57.0	0.063	77.0	0.009
-2.0	0.111	18.0	0.010	38.0	0.044	58.0	0.064	78.0	0.018
-1.0	0.328	19.0	0.007	39.0	0.063	59.0	0.072	79.0	0.025
0.0	0.852	20.0	0.061	40.0	0.092	60.0	0.079	80.0	0.029
1.0	0.982	21.0	0.084	41.0	0.099	61.0	0.079	81.0	0.031
2.0	0.653	22.0	0.058	42.0	0.071	62.0	0.067	82.0	0.030
3.0	0.260	23.0	0.044	43.0	0.030	63.0	0.045	83.0	0.028
4.0	0.130	24.0	0.067	44.0	0.006	64.0	0.019	84.0	0.024
5.0	0.122	25.0	0.096	45.0	0.010	65.0	0.004	85.0	0.019
6.0	0.116	26.0	0.082	46.0	0.031	66.0	0.017	86.0	0.015
7.0	0.099	27.0	0.044	47.0	0.040	67.0	0.020	87.0	0.010
8.0	0.101	28.0	0.029	48.0	0.029	68.0	0.013	88.0	0.005
9.0	0.089	29.0	0.031	49.0	0.011	69.0	0.004	89.0	0.002
								90.0	0.000

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

**SUMMARY OF RADIOFREQUENCY
RADIATION STUDY**
WRSP-TV, Springfield, IL
Channel 16, 185 kW, 415m HAAT
May, 2017

<u>CALL</u>	<u>SERVICE</u>	<u>CHANNEL</u>	<u>FREQUENCY</u>	<u>POLARIZATION</u>	<u>ANTENNA HEIGHT</u>	<u>ERP (kW)</u>	<u>VERT. RELATIVE FIELD FACTOR</u>	<u>WORST-CASE PREDICTED POWER DENSITY (mW/cm²)</u>	<u>POWER DENSITY (μW/cm²)</u>	<u>FCC UNCONTROLLED LIMIT (μW/cm²)</u>	<u>PERCENT OF UNCONTROLLED LIMIT</u>
WRSP-TV	DT	16	485	H & V	407	185.000	0.300	0.00678	6.783	323.33	2.10%
TOTAL PERCENTAGE OF FCC GUIDELINE VALUE =										2.10%	

* For television stations a very conservative vertical relative field factor of 0.3 was assumed pursuant to OET Bulletin 65.





WRSP-TV - SPRINGFIELD, ILLINOIS Longley-Rice Interference Analysis

tvstudy v2.2.2
Database: localhost, Study: WRSP_16_415H_185K_AP, Model: Longley-Rice
Start: 2017.06.23 08:53:05

Study created: 2017.06.23 08:52:59

Study build station data: LMS TV 2017-06-21 (19)

Proposal: WRSP-TV D16 DT APP SPRINGFIELD, IL
File number: WRSP_16_415H_185K_AP
Facility ID: 62009
Station data: User record
Record ID: 691
Country: U.S.
Zone: I

Non-U.S. records included

Stations potentially affected:

Call	Chan	Svc	Status	City, State	File Number	Distance
KYOU-TV	D15	DT	LIC	OTTUMWA, IA	BLANK0000001581	262.7 km
WICS	D15	DT	BL	SPRINGFIELD, IL	DTVBL25686	1.4
KDSM-TV	D16	DT	LIC	DES MOINES, IA	BLCDT20110609ABE	417.0
WTVO	D16	DT	LIC	ROCKFORD, IL	BLCDT20021024AAS	277.5
WDNI-CD	D16	DC	BL	INDIANAPOLIS, IN	DTVBL28199	287.6
WMYO	D16	DT	BL	SALEM, IN	DTVBL34167	349.6
KOZK	D16	DT	BL	SPRINGFIELD, MO	DTVBL51102	421.7
KWQC-TV	D17	DT	BL	DAVENPORT, IA	DTVBL6885	185.7
WYIN	D17	DT	LIC	GARY, IN	BLEDT20040206AAA	243.9
KETC	D17	DT	BL	ST. LOUIS, MO	DTVBL62182	167.8

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D16
Latitude: 39 47 56.80 N (NAD83)
Longitude: 89 26 46.10 W
Height AMSL: 590.0 m
HAAT: 415.0 m
Peak ERP: 185 kW
Antenna: Omnidirectional

38.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	185 kW	405.6 m	95.7 km
45.0	185	408.3	95.9
90.0	185	411.3	96.0
135.0	185	411.9	96.1
180.0	185	415.6	96.3
225.0	185	417.9	96.5

Appendix B - Interference Analysis
WRSP-TV - Springfield, Illinois
Channel 16 - 185 kW - Page 2

270.0	185	417.1	96.4
315.0	185	416.0	96.3

Database HAAT does not agree with computed HAAT
 Database HAAT: 415 m Computed HAAT: 413 m

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

Distance to Canadian border: 583.1 km

Distance to Mexican border: 1557.1 km

Conditions at FCC monitoring station: Allegan MI
 Bearing: 42.0 degrees Distance: 427.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
 Bearing: 276.8 degrees Distance: 1342.8 km

No land mobile station failures found

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 BLANK0000001581 IIC, scenario 1
 Proposal causes no interference.

 Interference to BLANK0000001581 IIC, scenario 2
 Proposal causes no interference.

 Interference to DTVBL25686 BL, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WICS	D15	DT	BL	SPRINGFIELD, IL	DTVBL25686	
Undesireds:	WRSP-TV	D16	DT	BL	SPRINGFIELD, IL	DTVBL62009	1.4 km
	WRSP-TV	D16	DT	APP	SPRINGFIELD, IL	WRSP_16_415H_185K_AP	1.4
	KNLC	D14	DT	LIC	ST. LOUIS, MO	BLCDT20061228AAC	185.8
	KYOU-TV	D15	DT	LIC	OTTUMWA, IA	BLANK0000001581	261.3
	W15BU-D	D15	DC	LIC	JOHNSON CITY, IL	BLDTA20090804AAF	222.6
	WYYW-CD	D15	DC	LIC	EVANSVILLE, IN	BLDTA20130109AGB	277.0
	WTTK	D15	DT	CP	KOKOMO, IN	BLANK0000024884	278.3
	KPOB-TV	D15	DT	LIC	POPLAR BLUFF, MO	BLCDT20090623ABU	344.8
	KMOS-TV	D15	DT	LIC	SEDALIA, MO	BLEDT20030108ABK	321.2

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
30309.0	1,011,821	30221.5	1,009,822	29993.4 1,004,221 29993.4 1,004,496 -0.00 -0.03

Undesired	Total	IX	Unique IX, before	Unique IX, after
WRSP-TV D16 DT BL	75.8	824	75.8	824
WRSP-TV D16 DT APP	75.8	549		
KYOU-TV D15 DT LIC	104.0	3,772	40.1	3,611
WTTK D15 DT CP	44.2	290	40.2	259

Appendix B - Interference Analysis
WRSP-TV - Springfield, Illinois
Channel 16 - 185 kW - Page 3

KMOS-TV D15 DT LIC	67.9	876	8.0	746	8.0	746
--------------------	------	-----	-----	-----	-----	-----

Interference to DTVBL25686 BL, scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WICS	D15	DT	BL	SPRINGFIELD, IL	DTVBL25686	
Undesireds:	WRSP-TV	D16	DT	BL	SPRINGFIELD, IL	DTVBL62009	1.4 km
	WRSP-TV	D16	DT	APP	SPRINGFIELD, IL	WRSP_16_415H_185K_AP	1.4
	KNLC	D14	DT	LIC	ST. LOUIS, MO	BLCDT20061228AAC	185.8
	KYOU-TV	D15	DT	LIC	OTTUMWA, IA	BLANK0000001581	261.3
	W15BU-D	D15	DC	LIC	JOHNSON CITY, IL	BLDTA20090804AAF	222.6
	WYYW-CD	D15	DC	LIC	EVANSVILLE, IN	BLDTA20130109AGB	277.0
	WTTK	D15	DT	BL	KOKOMO, IN	DTVBL56526	278.3
	KPOB-TV	D15	DT	LIC	POPLAR BLUFF, MO	BLCDT20090623ABU	344.8
	KMOS-TV	D15	DT	LIC	SEDALIA, MO	BLEDT20030108ABK	321.2

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
30309.0 1,011,821	30221.5 1,009,822	29993.4 1,004,221	29993.4 1,004,496	-0.00 -0.03

Undesired	Total IX	Unique IX, before	Unique IX, after
WRSP-TV D16 DT BL	75.8	824	75.8
WRSP-TV D16 DT APP	75.8	549	75.8
KYOU-TV D15 DT LIC	104.0	3,772	40.1
WTTK D15 DT BL	44.2	290	40.2
KMOS-TV D15 DT LIC	67.9	876	8.0
			746

Interference to BLCDT20110609ABE LIC, scenario 1

Proposal causes no interference.

Interference to BLCDT20021024AAS LIC, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTVO	D16	DT	LIC	ROCKFORD, IL	BLCDT20021024AAS	
Undesireds:	WRSP-TV	D16	DT	BL	SPRINGFIELD, IL	DTVBL62009	277.5 km
	WRSP-TV	D16	DT	APP	SPRINGFIELD, IL	WRSP_16_415H_185K_AP	277.5
	KDSM-TV	D16	DT	LIC	DES MOINES, IA	BLCDT20110609ABE	370.2
	WFWC-CD	D16	DC	BL	FORT WAYNE, IN	DTVBL67485	359.2
	WOBC-CD	D16	DC	BL	BATTLE CREEK, MI	DTVBL67001	329.4
	WJFW-TV	D16	DT	LIC	RHINELANDER, WI	BLCDT20070222AOP	375.7
	KWQC-TV	D17	DT	BL	DAVENPORT, IA	DTVBL6885	147.6
	WBME-CD	D17	DC	BL	MILWAUKEE, WI	DTVBL71422	136.6

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
18475.0 1,409,708	18335.0 1,398,825	18158.2 1,396,995	18154.2 1,396,975	0.02 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WRSP-TV D16 DT BL	104.6	552	88.6
WRSP-TV D16 DT APP	108.6	572	92.6
KDSM-TV D16 DT LIC	4.0	17	0.0
KWQC-TV D17 DT BL	56.2	783	44.2
WBME-CD D17 DC BL	28.1	684	28.1
			684

Interference to BLCDT20021024AAS LIC, scenario 2

Call	Chan	Svc	Status	City, State	File Number	Distance
------	------	-----	--------	-------------	-------------	----------

Appendix B - Interference Analysis
WRSP-TV - Springfield, Illinois
Channel 16 - 185 kW - Page 4

Desired:	WTVO	D16	DT	LIC	ROCKFORD, IL	BLCDT20021024AAS	
Undesireds:	WRSP-TV	D16	DT	BL	SPRINGFIELD, IL	DTVBL62009	277.5 km
	WRSP-TV	D16	DT	APP	SPRINGFIELD, IL	WRSP_16_415H_185K_AP	277.5
	KDSM-TV	D16	DT	LIC	DES MOINES, IA	BLCDT20110609ABE	370.2
	WFWC-CD	D16	DC	BL	FORT WAYNE, IN	DTVBL67485	359.2
	WOBC-CD	D16	DC	BL	BATTLE CREEK, MI	DTVBL67001	329.4
	WJFW-TV	D16	DT	LIC	RHINELANDER, WI	BLCDT20070222AOP	375.7
	KWQC-TV	D17	DT	BL	DAVENPORT, IA	DTVBL6885	147.6
	WBME-CD	D17	DC	BL	MILWAUKEE, WI	DTVBL71422	136.6
Service area		Terrain-limited			IX-free, before	IX-free, after	Percent New IX
18475.0	1,409,708	18335.0	1,398,825	18158.2	1,396,995	18154.2	1,396,975
Undesired			Total IX		Unique IX, before	Unique IX, after	
WRSP-TV D16 DT BL		104.6		552	88.6	346	
WRSP-TV D16 DT APP		108.6		572		92.6	366
KDSM-TV D16 DT LIC		4.0		17	0.0	0	0
KWQC-TV D17 DT BL		56.2		783	44.2	594	594
WBME-CD D17 DC BL		28.1		684	28.1	684	684

Interference to DTVBL28199 BL, scenario 1							
Proposal causes no interference.							

Interference to DTVBL28199 BL, scenario 2							
Proposal causes no interference.							

Interference to DTVBL34167 BL, scenario 1							
Desired:	Call WMYO	Chan D16	Svc DT	Status BL	City, State SALEM, IN	File Number DTVBL34167	Distance
Undesireds:	WRSP-TV	D16	DT	BL	SPRINGFIELD, IL	DTVBL62009	349.7 km
	WRSP-TV	D16	DT	APP	SPRINGFIELD, IL	WRSP_16_415H_185K_AP	349.6
	WYYW-CD	D15	DC	LIC	EVANSVILLE, IN	BLDTA20130109AGB	130.5
	WTTK	D15	DT	CP	KOKOMO, IN	BLANK0000024884	173.7
	WLCU-CD	D15	DC	BL	CAMPBELLSVILLE, KY	DTVBL8500	119.8
	WXIX-TV	D15	DT	BL	NEWPORT, KY	DTVBL39738	141.7
	WPBM-CD	D15	DC	BL	SCOTTSVILLE, KY	DTVBL30580	169.8
	WFWC-CD	D16	DC	BL	FORT WAYNE, IN	DTVBL67485	311.4
	WDNI-CD	D16	DC	BL	INDIANAPOLIS, IN	DTVBL28199	162.4
	WOSU-TV	D16	DT	BL	COLUMBUS, OH	DTVBL66185	322.2
	WAPK-CD	D16	DC	BL	BRISTOL VA/KINGSPORT, TN	DTVBL77677	391.0
	WHTN	D16	DT	BL	MURFREESBORO, TN	DTVBL11117	257.2
	WALV-CD	D17	DC	BL	INDIANAPOLIS, IN	DTVBL70161	177.8
	WKOH	D17	DT	BL	OWENSBORO, KY	DTVBL34205	140.8
	WKSQ-TV	D17	DT	BL	SOMERSET, KY	DTVBL34222	159.3
	WCET	D17	DT	BL	CINCINNATI, OH	DTVBL65666	143.7
Service area		Terrain-limited			IX-free, before	IX-free, after	Percent New IX
33460.7	1,983,916	32901.5	1,974,408	32379.9	1,949,656	32379.9	1,949,656
Undesired			Total IX		Unique IX, before	Unique IX, after	
WRSP-TV D16 DT BL		28.1		384	24.1	359	
WRSP-TV D16 DT APP		28.1		384		24.1	359
WYYW-CD D15 DC LIC		174.0		12,353	166.1	9,830	166.1
WLCU-CD D15 DC BL		35.9		412	27.9	338	27.9
WXIX-TV D15 DT BL		64.0		1,527	0.0	0	0.0

Appendix B - Interference Analysis
WRSP-TV - Springfield, Illinois
Channel 16 - 185 kW - Page 5

WDNI-CD D16 DC BL	59.9	7,820	47.9	7,629	47.9	7,629
WOSU-TV D16 DT BL	84.1	1,070	64.2	814	64.2	814
WHTN D16 DT BL	79.5	3,134	59.7	512	59.7	512
WCET D17 DT BL	108.0	2,645	40.0	1,017	40.0	1,017

Interference to DTVBL34167 BL, scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WMYO	D16	DT	BL	SALEM, IN	DTVBL34167	
Undesireds:	WRSP-TV	D16	DT	BL	SPRINGFIELD, IL	DTVBL62009	349.7 km
	WRSP-TV	D16	DT	APP	SPRINGFIELD, IL	WRSP_16_415H_185K_AP	349.6
	WYYW-CD	D15	DC	LIC	EVANSVILLE, IN	BLDTA20130109AGB	130.5
	WTTK	D15	DT	BL	KOKOMO, IN	DTVBL56526	173.7
	WLCU-CD	D15	DC	BL	CAMPBELLSVILLE, KY	DTVBL8500	119.8
	WXIX-TV	D15	DT	BL	NEWPORT, KY	DTVBL39738	141.7
	WPBM-CD	D15	DC	BL	SCOTTSVILLE, KY	DTVBL30580	169.8
	WFWC-CD	D16	DC	BL	FORT WAYNE, IN	DTVBL67485	311.4
	WDNI-CD	D16	DC	BL	INDIANAPOLIS, IN	DTVBL28199	162.4
	WOSU-TV	D16	DT	BL	COLUMBUS, OH	DTVBL66185	322.2
	WAPK-CD	D16	DC	BL	BRISTOL VA/KINGSPORT, TN	DTVBL77677	391.0
	WHTN	D16	DT	BL	MURFREESBORO, TN	DTVBL11117	257.2
	WALV-CD	D17	DC	BL	INDIANAPOLIS, IN	DTVBL70161	177.8
	WKOH	D17	DT	BL	OWENSBORO, KY	DTVBL34205	140.8
	WKSO-TV	D17	DT	BL	SOMERSET, KY	DTVBL34222	159.3
	WCET	D17	DT	BL	CINCINNATI, OH	DTVBL65666	143.7

Service area	Terrain-limited		IX-free, before		IX-free, after		Percent New IX		
33460.7	1,983,916	32901.5	1,974,408	32379.9	1,949,656	32379.9	1,949,656	0.00	0.00

Undesired	Total	IX	Unique IX, before	Unique IX, after		
WRSP-TV D16 DT BL	28.1	384	24.1	359		
WRSP-TV D16 DT APP	28.1	384		24.1	359	
WYYW-CD D15 DC LIC	174.0	12,353	166.1	9,830	166.1	9,830
WLCU-CD D15 DC BL	35.9	412	27.9	338	27.9	338
WXIX-TV D15 DT BL	64.0	1,527	0.0	0	0.0	0
WDNI-CD D16 DC BL	59.9	7,820	47.9	7,629	47.9	7,629
WOSU-TV D16 DT BL	84.1	1,070	64.2	814	64.2	814
WHTN D16 DT BL	79.5	3,134	59.7	512	59.7	512
WCET D17 DT BL	108.0	2,645	40.0	1,017	40.0	1,017

Interference to DTVBL51102 BL, scenario 1
Proposal causes no interference.

Interference to DTVBL51102 BL, scenario 2
Proposal causes no interference.

Interference to DTVBL6885 BL, scenario 1
Proposal causes no interference.

Interference to DTVBL6885 BL, scenario 2
Proposal causes no interference.

Interference to DTVBL6885 BL, scenario 3
Proposal causes no interference.

Appendix B - Interference Analysis
WRSP-TV - Springfield, Illinois
Channel 16 - 185 kW - Page 6

Interference to DTVBL6885 BL, scenario 4
Proposal causes no interference.

Interference to BLEDT20040206AAA LIC, scenario 1
Proposal causes no interference.

Interference to BLEDT20040206AAA LIC, scenario 2
Proposal causes no interference.

Interference to BLEDT20040206AAA LIC, scenario 3
Proposal causes no interference.

Interference to BLEDT20040206AAA LIC, scenario 4
Proposal causes no interference.

Interference to DTVBL62182 BL, scenario 1
Proposal causes no interference.

Interference to DTVBL62182 BL, scenario 2
Proposal causes no interference.

Interference to proposal, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WRSP-TV	D16	DT	APP	SPRINGFIELD, IL	WRSP_16_415H_185K_AP	
Undesireds:	WICS	D15	DT	BL	SPRINGFIELD, IL	DTVBL25686	1.4 km
	WTVO	D16	DT	LIC	ROCKFORD, IL	BLCDT20021024AAS	277.5
	WFWC-CD	D16	DC	BL	FORT WAYNE, IN	DTVBL67485	391.4
	WDNI-CD	D16	DC	BL	INDIANAPOLIS, IN	DTVBL28199	287.6
	WMYO	D16	DT	BL	SALEM, IN	DTVBL34167	349.6
	KWQC-TV	D17	DT	BL	DAVENPORT, IA	DTVBL6885	185.7
	KETC	D17	DT	BL	ST. LOUIS, MO	DTVBL62182	167.8
	Service area		Terrain-limited		IX-free	Percent IX	
29004.6	904,326	28988.5	904,321	28900.1	902,303	0.30	0.22
Undesired			Total IX		Unique IX	Prcnt Unique IX	
WICS D15 DT BL		68.4	432	60.3	414	0.21	0.05
WTVO D16 DT LIC		28.1	1,604	20.0	1,586	0.07	0.18