



**STATEMENT OF JOHN E. HIDLE, P.E.  
IN SUPPORT OF AN APPLICATION FOR  
CONSTRUCTION PERMIT  
WHOI - PEORIA, ILLINOIS  
DTV - CH. 19 - 195 kW - 178.7 m HAAT**

Prepared for: WHOI LICENSEE, 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 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 WHOI LICENSEE, LLC, licensee of WHOI, channel 19, licensed to Peoria, Illinois, to prepare this statement, FCC Form 301, Sections III and III-D, and the associated exhibits in support of an application for construction permit to replace its licensed antenna with a new antenna to be installed on the same tower support structure, but at a slightly reduced Height Above Average Terrain (HAAT) compared to the existing antenna, which is in poor condition and must be replaced.

**DIRECTIONAL ANTENNA**

The applicant proposes to install a new Dielectric model TLP-24H/VP-R elliptically polarized directional transmitting antenna with its center of radiation located at a height above ground of 160.3 meters, and a height above average terrain of 178.7 meters. The

antenna manufacturer's horizontal plane azimuth patterns, illustrating the antenna's radiation characteristics as a function of direction, are shown for the horizontally polarized signal component in exhibit 1 and tabulated in exhibit 2, and for the vertically polarized signal component in exhibit 3 and tabulated in exhibit 4. The manufacturer's vertical plane elevation radiation pattern, illustrating the antenna's radiation characteristics above and below the horizontal plane, due to electrical beam tilt, is shown in Exhibits 5 and 6, and is tabulated in Exhibit 7.

#### **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 8 shows the predicted Noise Limited (41 dBu) contour, and the principal community (48 dBu) contour. The 48 dBu contour completely encompasses the principal community of license, Peoria, Illinois.

## **ALLOCATION CONSIDERATIONS**

### **DTV Allocation Considerations**

Compliance with Public Notice DA 13-618, which imposes limitations on the filing and processing of modification applications, is shown in exhibit 9. The new antenna is to be installed with its radiation centerline located at a lower height compared to the existing antenna. The minimal differences between the azimuth patterns of the two antennas are such that the currently authorized ERP of 195 kW is in compliance with DA 13-618, and will not result in the increase of the station's noise-limited contour in any direction.

Even though the distance to the station's noise-limited contour is not increased in any direction, a study was performed, using the Commission's application processing software, tv\_process, to determine if the instant application for construction permit for WHOI is predicted to cause any level of new prohibited interference to any domestic DTV stations, expansion construction permits, pending applications or DTV allotments. Results of the study indicate that the instant application is predicted to cause no impermissible level of new interference to the populations to be served by any domestic DTV station, expansion construction permit, pending DTV application or DTV allotment.

### **International Considerations**

The study reveals that the proposed facility is beyond the Canadian coordination distance, additionally, since WHOI is not extending its noise-limited contour in any direction, there are no international considerations..

**Class A Television Allocation Considerations**

As required in Section 73.616(f) of the FCC's Rules, a study was performed, using the FCC's application processing software. The study revealed that there are no Class A LPTV stations with which WHOI exhibits any spacing violation or contour overlap, nor is WHOI is predicted to cause any interference to any Class A LPTV station.

**AM station considerations**

The study also states that the "Proposed station is OK toward AM broadcast stations". There are no AM radio stations located within 3.2 km of the subject site.

**BLANKETING AND INTERMODULATION INTERFERENCE**

There are no other television broadcast facilities co-located with WHOI, however, there are three digital LPTV construction permits and one digital LPTV application that specify WHOI's site. There are no FM radio facilities located within the relevant distance of 315 meters. There are other broadcast and non-broadcast facilities located within 10 km of WHOI's 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**

Effective October 15, 1997 the FCC adopted new guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions. The guidelines 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 that apply in cases that 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 ( $\text{mW}/\text{cm}^2$ ) for an "uncontrolled" environment, and is 1.0 milliwatts per centimeter squared ( $\text{mW}/\text{cm}^2$ ) 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 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 WHOI operating on channel 19 must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For WHOI, which operates on television Channel 19 (500-506 MHz), the MPE is 0.335

milliwatts per centimeter squared ( $\text{mW}/\text{cm}^2$ ) in an “uncontrolled” environment and  $1.675 \text{ mW}/\text{cm}^2$  in a “controlled” environment. The proposed WHOI facility will operate with a maximum ERP of 195 kW from an elliptically polarized directional transmitting antenna with a centerline height of 160.3 meters above ground level (AGL). Considering a very conservative vertical plane relative field factor of 0.200, the WHOI facility is predicted to produce a power density at two meters above ground level of  $0.02079 \text{ mW}/\text{cm}^2$ , which is 6.20% of the FCC guideline value for an “uncontrolled” environment, and 1.240% of the FCC’s guideline value for “controlled” environments. There are no other full-service TV nor FM radio stations, however, there are three digital LPTV station construction permits authorized and one digital LPTV station application pending, that are located within the relevant proximity of 315 meters. The total percentage of the ANSI value at the proposed site, including the cumulative radiation from all digital DTV construction permits and stations within the relevant proximity is 8.45% of the limit applicable to “uncontrolled” environments, and 1.69% of the limit for “controlled” environments.

Access to the transmitting site is restricted and is appropriately marked with RFR warning signs. A site protocol is in effect to ensure that appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure.

### **OCCUPATIONAL SAFETY**

The licensee of WHOI is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WHOI antenna, and is committed to

**STATEMENT OF JOHN E. HIDLE, P.E.**  
**WHOI - Peoria, Illinois**  
**PAGE 7**

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 replace WHOI's antenna, as described herein, complies with the Rules, Regulations and relevant Policies of the Federal Communications Commission. This statement, FCC Form 301, Sections III and III-D, 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: April 21, 2014



Proposal Number

Date

**20-Dec-13**

**Exhibit 1**

Call Letters

**WHOI**

Channel

**19**

Location

**Peoria, IL**

Customer

Antenna Type

**TLP-24H/VP-R**

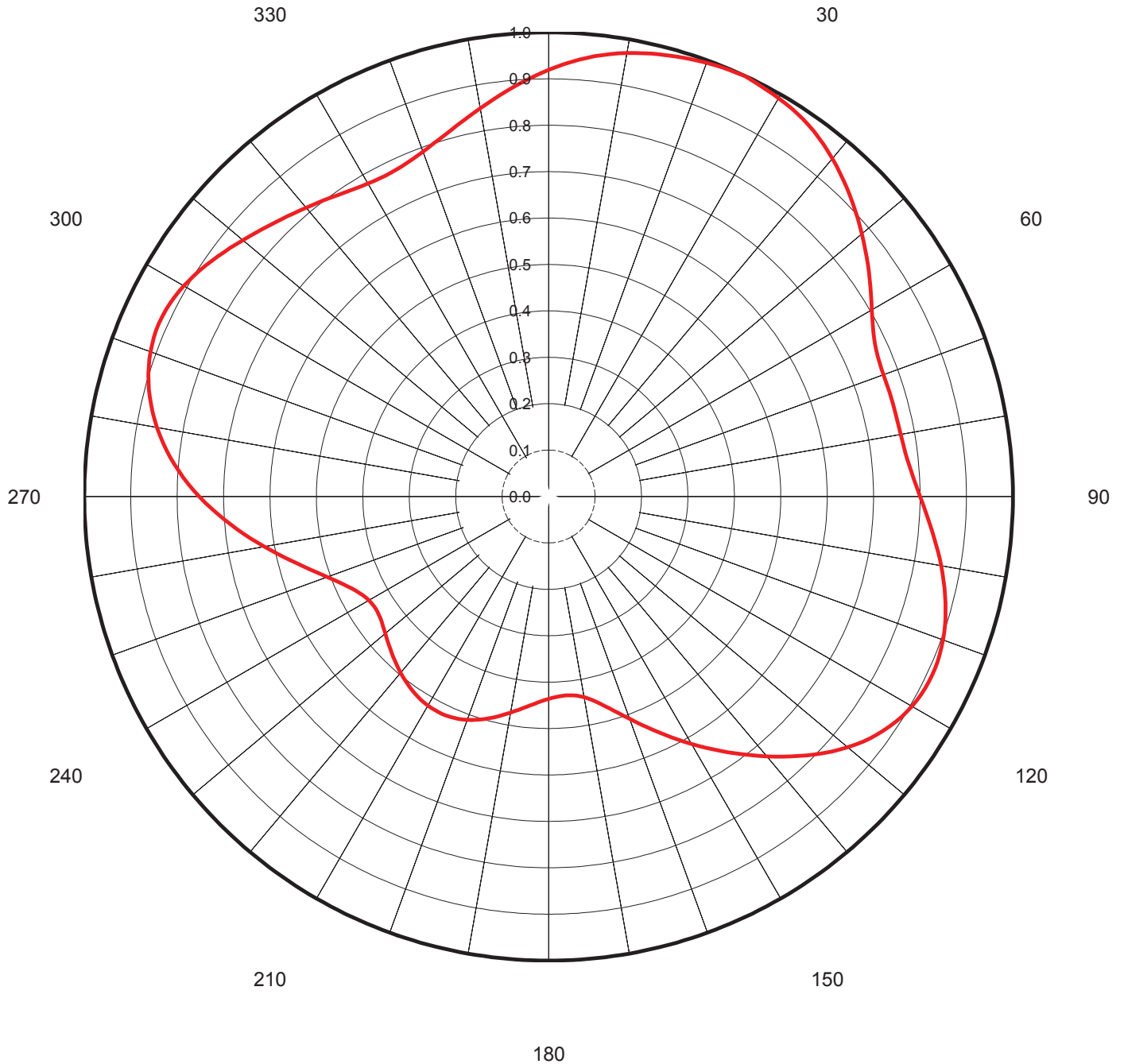
## AZIMUTH PATTERN

Gain **1.70**  
Calculated / Measured

**( 2.30 dB)**  
**Calculated**

Frequency **503.00 MHz**  
Drawing # **TLP-H**

**503.00 MHz**  
**TLP-H**







Proposal Number

Exhibit 2

Date

**20-Dec-13**

Call Letters

**WHOI**

Channel

**19**

Location

**Peoria, IL**

Customer

Antenna Type

**TLP-24H/VP-R****TABULATION OF AZIMUTH PATTERN**Azimuth Pattern Drawing #: **TLP-H**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.919	45	0.917	90	0.800	135	0.788	180	0.436	225	0.477	270	0.752	315	0.834
1	0.926	46	0.910	91	0.805	136	0.777	181	0.438	226	0.474	271	0.765	316	0.830
2	0.932	47	0.903	92	0.811	137	0.766	182	0.441	227	0.470	272	0.777	317	0.825
3	0.938	48	0.896	93	0.817	138	0.754	183	0.444	228	0.466	273	0.788	318	0.821
4	0.944	49	0.888	94	0.823	139	0.742	184	0.448	229	0.463	274	0.799	319	0.816
5	0.949	50	0.881	95	0.828	140	0.731	185	0.452	230	0.459	275	0.810	320	0.812
6	0.954	51	0.873	96	0.835	141	0.719	186	0.456	231	0.456	276	0.820	321	0.808
7	0.958	52	0.865	97	0.841	142	0.707	187	0.460	232	0.453	277	0.830	322	0.804
8	0.963	53	0.858	98	0.847	143	0.696	188	0.464	233	0.450	278	0.839	323	0.800
9	0.967	54	0.850	99	0.853	144	0.684	189	0.468	234	0.448	279	0.848	324	0.796
10	0.970	55	0.842	100	0.858	145	0.673	190	0.473	235	0.446	280	0.856	325	0.793
11	0.973	56	0.834	101	0.864	146	0.661	191	0.477	236	0.445	281	0.864	326	0.789
12	0.976	57	0.827	102	0.870	147	0.650	192	0.482	237	0.444	282	0.872	327	0.786
13	0.979	58	0.819	103	0.875	148	0.638	193	0.486	238	0.444	283	0.879	328	0.783
14	0.982	59	0.811	104	0.880	149	0.627	194	0.491	239	0.445	284	0.885	329	0.781
15	0.984	60	0.804	105	0.885	150	0.615	195	0.495	240	0.447	285	0.891	330	0.779
16	0.986	61	0.797	106	0.890	151	0.604	196	0.499	241	0.450	286	0.896	331	0.777
17	0.989	62	0.791	107	0.894	152	0.593	197	0.503	242	0.453	287	0.901	332	0.776
18	0.991	63	0.785	108	0.898	153	0.582	198	0.506	243	0.458	288	0.906	333	0.776
19	0.993	64	0.780	109	0.901	154	0.571	199	0.509	244	0.463	289	0.909	334	0.776
20	0.994	65	0.776	110	0.904	155	0.560	200	0.512	245	0.468	290	0.912	335	0.777
21	0.996	66	0.773	111	0.906	156	0.550	201	0.515	246	0.475	291	0.915	336	0.779
22	0.997	67	0.770	112	0.909	157	0.539	202	0.517	247	0.482	292	0.917	337	0.781
23	0.998	68	0.769	113	0.910	158	0.529	203	0.519	248	0.490	293	0.918	338	0.784
24	0.999	69	0.768	114	0.911	159	0.519	204	0.520	249	0.498	294	0.918	339	0.787
25	1.000	70	0.768	115	0.911	160	0.510	205	0.521	250	0.507	295	0.918	340	0.791
26	0.998	71	0.768	116	0.911	161	0.500	206	0.522	251	0.517	296	0.917	341	0.795
27	0.996	72	0.768	117	0.910	162	0.492	207	0.522	252	0.527	297	0.915	342	0.800
28	0.994	73	0.768	118	0.909	163	0.483	208	0.522	253	0.537	298	0.913	343	0.805
29	0.993	74	0.768	119	0.906	164	0.475	209	0.521	254	0.548	299	0.911	344	0.811
30	0.991	75	0.768	120	0.904	165	0.467	210	0.520	255	0.560	300	0.907	345	0.816
31	0.989	76	0.768	121	0.900	166	0.460	211	0.519	256	0.571	301	0.904	346	0.822
32	0.986	77	0.768	122	0.896	167	0.454	212	0.517	257	0.584	302	0.900	347	0.829
33	0.984	78	0.769	123	0.891	168	0.448	213	0.515	258	0.596	303	0.895	348	0.835
34	0.980	79	0.769	124	0.886	169	0.443	214	0.513	259	0.609	304	0.890	349	0.842
35	0.977	80	0.770	125	0.880	170	0.439	215	0.511	260	0.622	305	0.885	350	0.849
36	0.972	81	0.771	126	0.873	171	0.436	216	0.508	261	0.635	306	0.880	351	0.856
37	0.968	82	0.772	127	0.866	172	0.433	217	0.505	262	0.648	307	0.875	352	0.863
38	0.962	83	0.774	128	0.858	173	0.432	218	0.502	263	0.661	308	0.870	353	0.870
39	0.957	84	0.776	129	0.850	174	0.431	219	0.499	264	0.675	309	0.865	354	0.878
40	0.951	85	0.779	130	0.841	175	0.430	220	0.496	265	0.688	310	0.859	355	0.885
41	0.945	86	0.783	131	0.831	176	0.430	221	0.492	266	0.701	311	0.854	356	0.892
42	0.938	87	0.786	132	0.821	177	0.431	222	0.489	267	0.714	312	0.849	357	0.899
43	0.931	88	0.791	133	0.810	178	0.432	223	0.485	268	0.727	313	0.844	358	0.906
44	0.924	89	0.795	134	0.800	179	0.434	224	0.481	269	0.740	314	0.839	359	0.913

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.



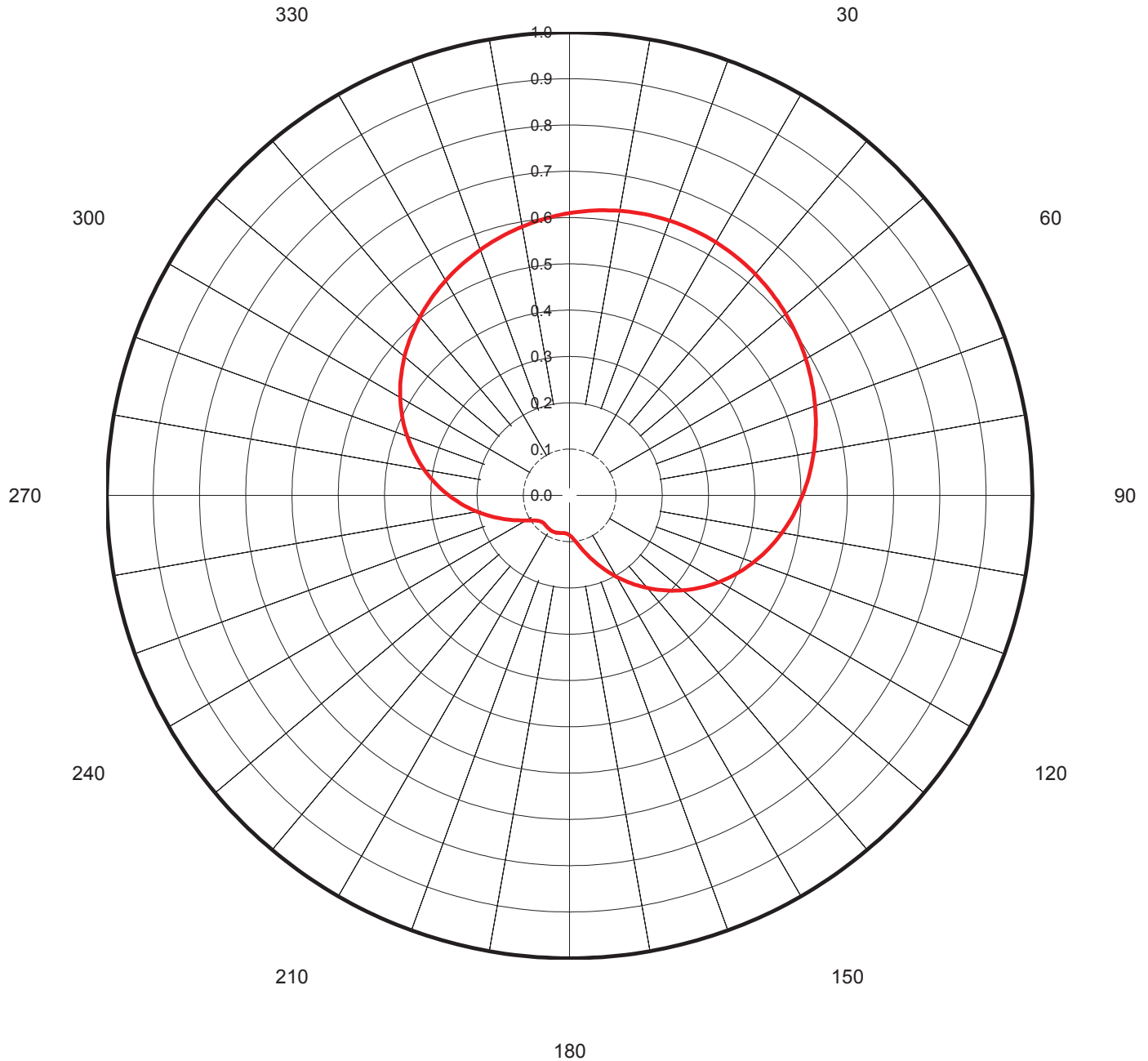
Proposal Number **C-06082**  
Date **20-Dec-13**  
Call Letters **WHOI**  
Location **Peoria, IL**  
Customer  
Antenna Type **TLP-24H/VP-R**

**Exhibit 3**  
Channel **19**

### AZIMUTH PATTERN/VERTICAL POLARIZATION

Gain **2.30** **( 3.62 dB)**  
Calculated / Measured **Calculated**

Frequency **503.00 MHz**  
Drawing # **TLP-H\_VPOL\_D19**





Proposal Number

**C-06082****Exhibit 4**

Date

**20-Dec-13**

Call Letters

**WHOI**

Channel

**19**

Location

**Peoria, IL**

Customer

Antenna Type

**TLP-24H/VP-R****TABULATION OF AZIMUTH PATTERN/VERTICAL POLARIZATION**Azimuth Pattern Drawing #: **TLP-H\_VPOL\_D19**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.610	45	0.618	90	0.503	135	0.290	180	0.086	225	0.083	270	0.261	315	0.485
1	0.611	46	0.616	91	0.500	136	0.285	181	0.085	226	0.083	271	0.267	316	0.489
2	0.613	47	0.615	92	0.496	137	0.279	182	0.084	227	0.084	272	0.273	317	0.493
3	0.615	48	0.613	93	0.493	138	0.273	183	0.084	228	0.084	273	0.279	318	0.496
4	0.616	49	0.611	94	0.489	139	0.267	184	0.083	229	0.085	274	0.285	319	0.500
5	0.618	50	0.610	95	0.485	140	0.261	185	0.083	230	0.086	275	0.290	320	0.503
6	0.619	51	0.608	96	0.482	141	0.255	186	0.082	231	0.087	276	0.296	321	0.507
7	0.620	52	0.606	97	0.478	142	0.249	187	0.082	232	0.089	277	0.302	322	0.510
8	0.622	53	0.604	98	0.474	143	0.244	188	0.082	233	0.091	278	0.308	323	0.513
9	0.623	54	0.602	99	0.470	144	0.238	189	0.082	234	0.093	279	0.313	324	0.517
10	0.624	55	0.600	100	0.466	145	0.232	190	0.083	235	0.095	280	0.319	325	0.520
11	0.625	56	0.598	101	0.462	146	0.226	191	0.083	236	0.097	281	0.325	326	0.523
12	0.626	57	0.596	102	0.458	147	0.220	192	0.083	237	0.100	282	0.330	327	0.526
13	0.627	58	0.594	103	0.454	148	0.215	193	0.083	238	0.102	283	0.336	328	0.530
14	0.628	59	0.592	104	0.449	149	0.209	194	0.084	239	0.105	284	0.341	329	0.533
15	0.629	60	0.589	105	0.445	150	0.203	195	0.084	240	0.109	285	0.347	330	0.536
16	0.629	61	0.587	106	0.441	151	0.198	196	0.084	241	0.112	286	0.352	331	0.539
17	0.630	62	0.585	107	0.436	152	0.192	197	0.085	242	0.115	287	0.358	332	0.542
18	0.631	63	0.582	108	0.432	153	0.187	198	0.085	243	0.119	288	0.363	333	0.545
19	0.631	64	0.580	109	0.427	154	0.181	199	0.085	244	0.123	289	0.368	334	0.548
20	0.632	65	0.577	110	0.423	155	0.176	200	0.086	245	0.127	290	0.374	335	0.551
21	0.632	66	0.575	111	0.418	156	0.170	201	0.086	246	0.132	291	0.379	336	0.553
22	0.632	67	0.572	112	0.413	157	0.165	202	0.086	247	0.136	292	0.384	337	0.556
23	0.632	68	0.570	113	0.409	158	0.160	203	0.086	248	0.141	293	0.389	338	0.559
24	0.632	69	0.567	114	0.404	159	0.155	204	0.086	249	0.145	294	0.394	339	0.562
25	0.632	70	0.565	115	0.399	160	0.150	205	0.086	250	0.150	295	0.399	340	0.565
26	0.632	71	0.562	116	0.394	161	0.145	206	0.086	251	0.155	296	0.404	341	0.567
27	0.632	72	0.559	117	0.389	162	0.141	207	0.086	252	0.160	297	0.409	342	0.570
28	0.632	73	0.556	118	0.384	163	0.136	208	0.086	253	0.165	298	0.413	343	0.572
29	0.632	74	0.553	119	0.379	164	0.132	209	0.086	254	0.170	299	0.418	344	0.575
30	0.632	75	0.551	120	0.374	165	0.127	210	0.086	255	0.176	300	0.423	345	0.577
31	0.631	76	0.548	121	0.368	166	0.123	211	0.085	256	0.181	301	0.427	346	0.580
32	0.631	77	0.545	122	0.363	167	0.119	212	0.085	257	0.187	302	0.432	347	0.582
33	0.630	78	0.542	123	0.358	168	0.115	213	0.085	258	0.192	303	0.436	348	0.585
34	0.629	79	0.539	124	0.352	169	0.112	214	0.084	259	0.198	304	0.441	349	0.587
35	0.629	80	0.536	125	0.347	170	0.109	215	0.084	260	0.203	305	0.445	350	0.589
36	0.628	81	0.533	126	0.341	171	0.105	216	0.084	261	0.209	306	0.449	351	0.592
37	0.627	82	0.530	127	0.336	172	0.102	217	0.083	262	0.215	307	0.454	352	0.594
38	0.626	83	0.526	128	0.330	173	0.100	218	0.083	263	0.220	308	0.458	353	0.596
39	0.625	84	0.523	129	0.325	174	0.097	219	0.083	264	0.226	309	0.462	354	0.598
40	0.624	85	0.520	130	0.319	175	0.095	220	0.083	265	0.232	310	0.466	355	0.600
41	0.623	86	0.517	131	0.313	176	0.093	221	0.082	266	0.238	311	0.470	356	0.602
42	0.622	87	0.513	132	0.308	177	0.091	222	0.082	267	0.244	312	0.474	357	0.604
43	0.620	88	0.510	133	0.302	178	0.089	223	0.082	268	0.249	313	0.478	358	0.606
44	0.619	89	0.507	134	0.296	179	0.087	224	0.082	269	0.255	314	0.482	359	0.608

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.



Proposal Number

Date

**20-Dec-13****Exhibit 5**

Call Letters

**WHOI**

Channel

**19**

Location

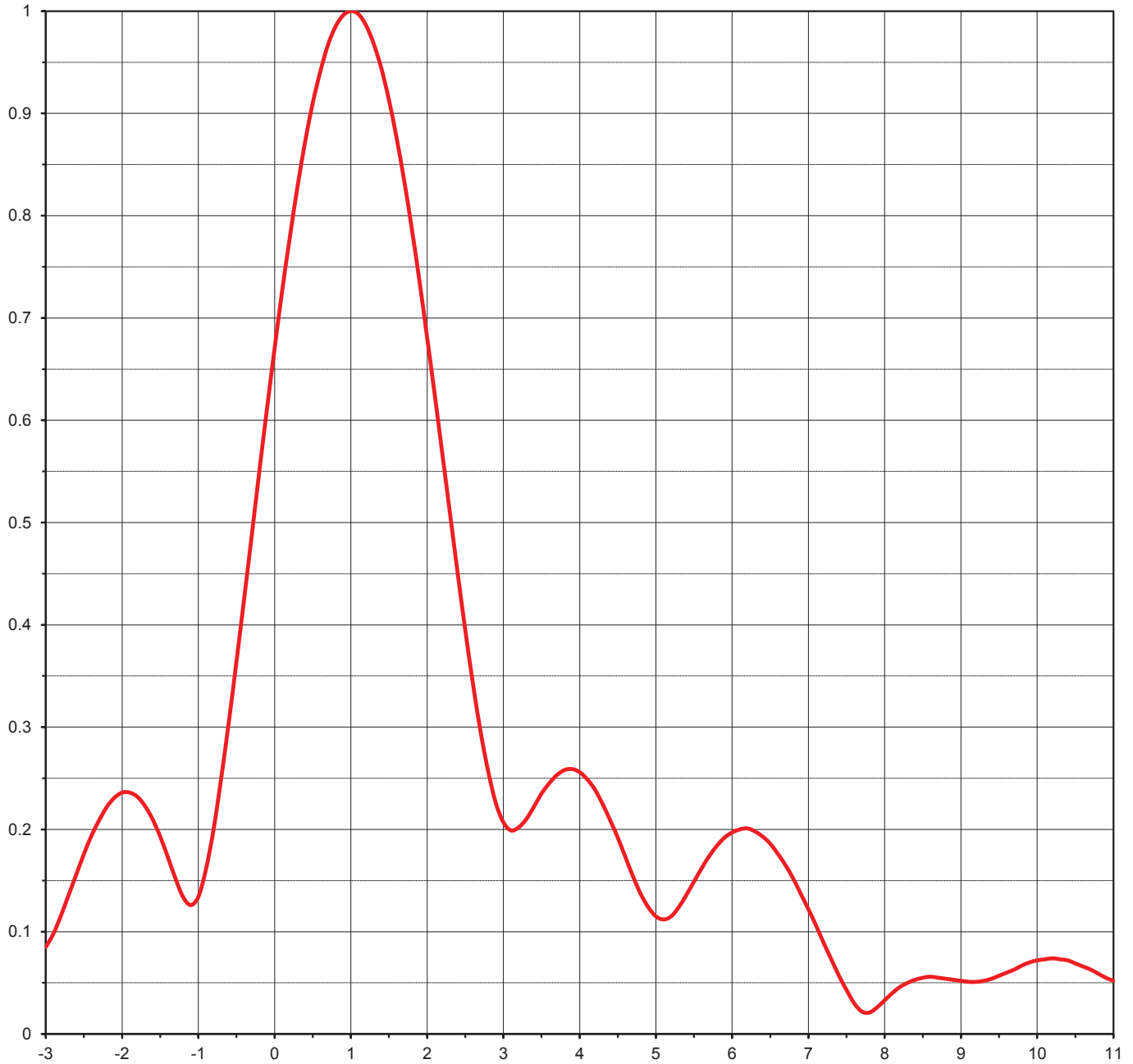
**Peoria, IL**

Customer

Antenna Type

**TLP-24H/VP-R**

## ELEVATION PATTERN

RMS Gain at Main Lobe **23.00 ( 13.62 dB )**Beam Tilt **1.00 deg**RMS Gain at Horizontal **10.30 ( 10.13 dB )**Frequency **503.00 MHz**Calculated / Measured **Calculated**Drawing # **24L230100**

Degrees Below Horizontal



Proposal Number

Date

**20-Dec-13**

**Exhibit 6**

Call Letters

**WHOI**

Channel

**19**

Location

**Peoria, IL**

Customer

Antenna Type

**TLP-24H/VP-R**

## ELEVATION PATTERN

RMS Gain at Main Lobe **23.00 ( 13.62 dB )**

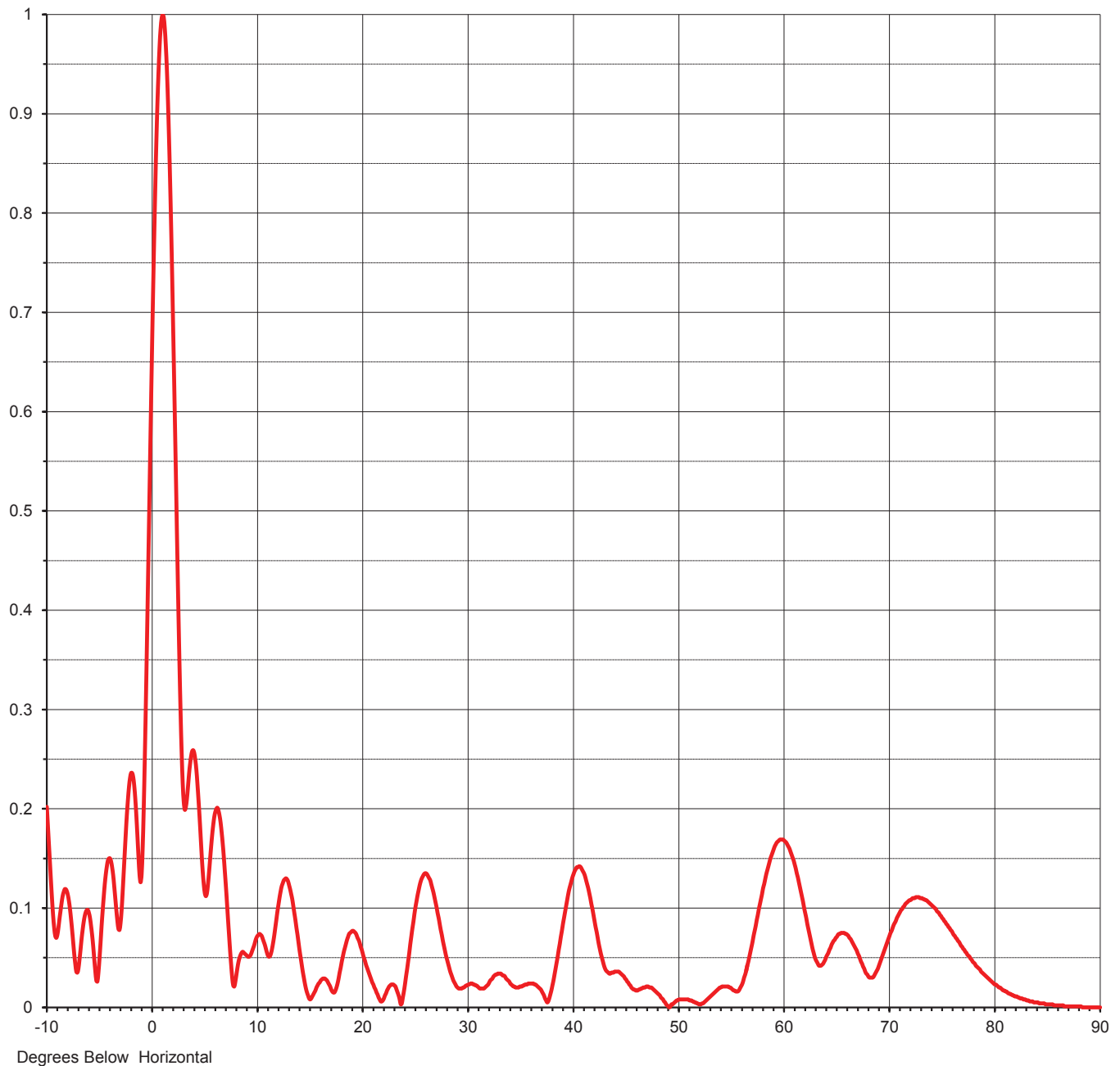
Beam Tilt **1.00 deg**

RMS Gain at Horizontal **10.30 ( 10.13 dB )**

Frequency **503.00 MHz**

Calculated / Measured **Calculated**

Drawing # **24L230100-90**





Proposal Number

Exhibit 7

Date

**20-Dec-13**

Call Letters

**WHOI**

Channel

**19**

Location

**Peoria, IL**

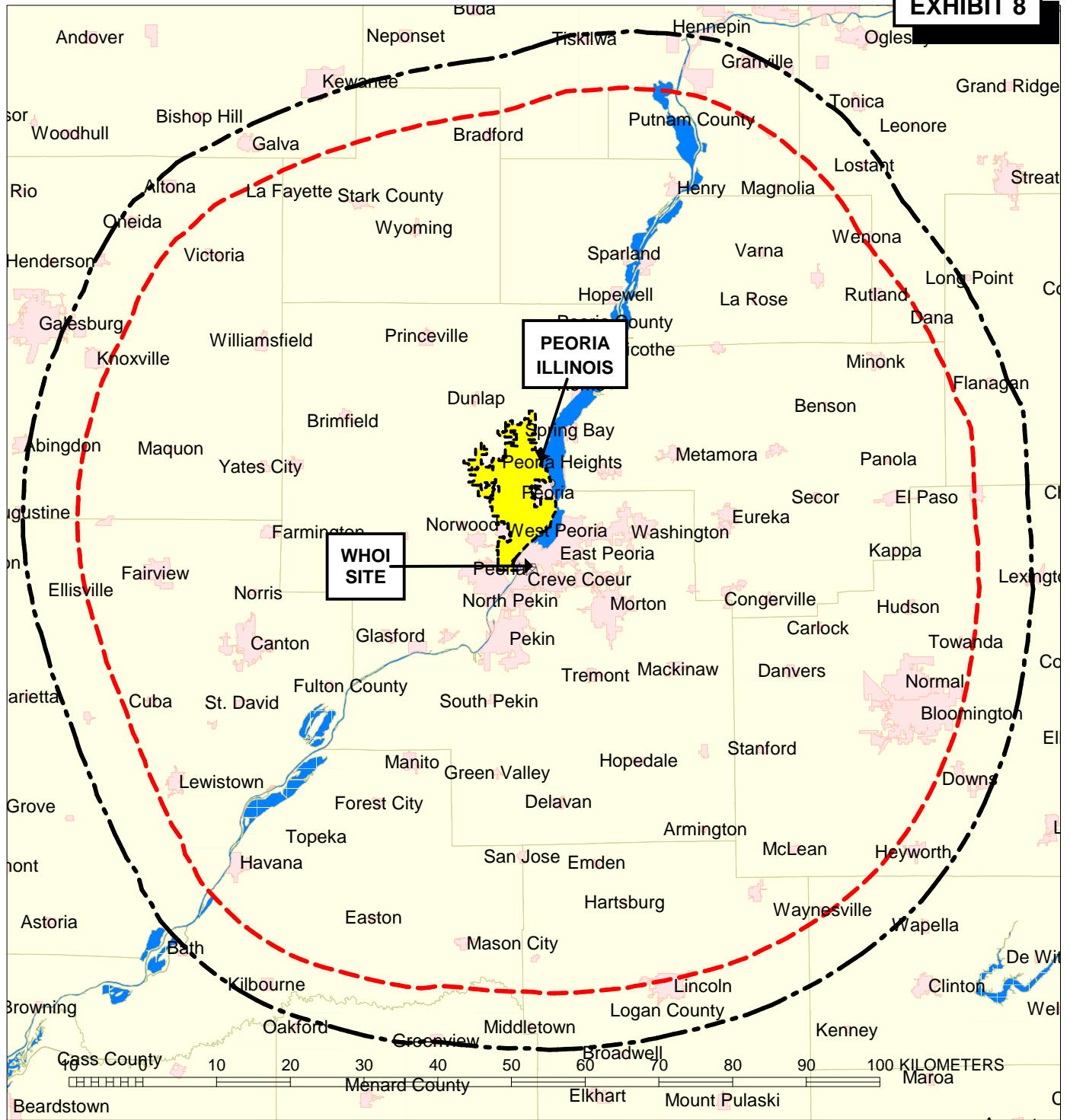
Customer

Antenna Type

**TLP-24H/VP-R****TABULATION OF ELEVATION PATTERN**Elevation Pattern Drawing #: **24L230100-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.202	2.4	0.451	10.6	0.069	30.5	0.024	51.0	0.008	71.5	0.104
-9.5	0.108	2.6	0.343	10.8	0.063	31.0	0.021	51.5	0.006	72.0	0.108
-9.0	0.073	2.8	0.257	11.0	0.055	31.5	0.019	52.0	0.003	72.5	0.111
-8.5	0.112	3.0	0.207	11.5	0.060	32.0	0.023	52.5	0.005	73.0	0.110
-8.0	0.113	3.2	0.202	12.0	0.097	32.5	0.031	53.0	0.010	73.5	0.108
-7.5	0.066	3.4	0.222	12.5	0.125	33.0	0.034	53.5	0.015	74.0	0.103
-7.0	0.039	3.6	0.245	13.0	0.127	33.5	0.032	54.0	0.020	74.5	0.097
-6.5	0.086	3.8	0.258	13.5	0.102	34.0	0.026	54.5	0.021	75.0	0.090
-6.0	0.095	4.0	0.256	14.0	0.065	34.5	0.021	55.0	0.020	75.5	0.083
-5.5	0.049	4.2	0.239	14.5	0.030	35.0	0.021	55.5	0.016	76.0	0.075
-5.0	0.049	4.4	0.209	15.0	0.009	35.5	0.023	56.0	0.021	76.5	0.067
-4.5	0.124	4.6	0.173	15.5	0.015	36.0	0.024	56.5	0.037	77.0	0.059
-4.0	0.150	4.8	0.137	16.0	0.025	36.5	0.023	57.0	0.061	77.5	0.052
-3.5	0.110	5.0	0.115	16.5	0.029	37.0	0.018	57.5	0.088	78.0	0.045
-3.0	0.085	5.2	0.115	17.0	0.021	37.5	0.007	58.0	0.114	78.5	0.039
-2.8	0.116	5.4	0.136	17.5	0.017	38.0	0.017	58.5	0.138	79.0	0.033
-2.6	0.156	5.6	0.162	18.0	0.040	38.5	0.045	59.0	0.156	79.5	0.028
-2.4	0.194	5.8	0.184	18.5	0.064	39.0	0.077	59.5	0.167	80.0	0.023
-2.2	0.222	6.0	0.197	19.0	0.076	39.5	0.108	60.0	0.169	80.5	0.020
-2.0	0.236	6.2	0.201	19.5	0.073	40.0	0.131	60.5	0.162	81.0	0.016
-1.8	0.232	6.4	0.193	20.0	0.058	40.5	0.141	61.0	0.148	81.5	0.013
-1.6	0.210	6.6	0.176	20.5	0.040	41.0	0.137	61.5	0.126	82.0	0.011
-1.4	0.173	6.8	0.152	21.0	0.025	41.5	0.120	62.0	0.100	82.5	0.009
-1.2	0.134	7.0	0.122	21.5	0.013	42.0	0.093	62.5	0.074	83.0	0.007
-1.0	0.134	7.2	0.089	22.0	0.007	42.5	0.064	63.0	0.051	83.5	0.006
-0.8	0.200	7.4	0.057	22.5	0.019	43.0	0.042	63.5	0.042	84.0	0.005
-0.6	0.305	7.6	0.030	23.0	0.023	43.5	0.034	64.0	0.048	84.5	0.004
-0.4	0.425	7.8	0.021	23.5	0.012	44.0	0.036	64.5	0.063	85.0	0.003
-0.2	0.550	8.0	0.033	24.0	0.016	44.5	0.035	65.0	0.071	85.5	0.003
0.0	0.670	8.2	0.046	24.5	0.054	45.0	0.029	65.5	0.075	86.0	0.002
0.2	0.779	8.4	0.053	25.0	0.094	45.5	0.022	66.0	0.073	86.5	0.002
0.4	0.872	8.6	0.056	25.5	0.123	46.0	0.017	66.5	0.065	87.0	0.001
0.6	0.941	8.8	0.054	26.0	0.135	46.5	0.019	67.0	0.054	87.5	0.001
0.8	0.985	9.0	0.052	26.5	0.128	47.0	0.021	67.5	0.041	88.0	0.001
1.0	1.000	9.2	0.051	27.0	0.106	47.5	0.020	68.0	0.031	88.5	0.000
1.2	0.986	9.4	0.054	27.5	0.078	48.0	0.015	68.5	0.031	89.0	0.000
1.4	0.944	9.6	0.060	28.0	0.052	48.5	0.009	69.0	0.042	89.5	0.000
1.6	0.876	9.8	0.063	28.5	0.033	49.0	0.002	69.5	0.057	90.0	0.000
1.8	0.787	10.0	0.070	29.0	0.021	49.5	0.003	70.0	0.072		
2.0	0.681	10.2	0.073	29.5	0.019	50.0	0.007	70.5	0.085		
2.2	0.567	10.4	0.073	30.0	0.022	50.5	0.008	71.0	0.096		

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.



## PREDICTED COVERAGE CONTOURS

**WHOI - PEORIA, ILLINOIS**

**CH. 19 - 195 kW - 178.7 meters HAAT**

**Predicted Noise Limited Contour**

**F(50,90) - 41 dBu**

**Area = 14,863 sq km**

**Population = 636,437**

**Predicted Principal Community Contour**

**F(50,90) - 48 dBu**

**Area = 11,827 sq km**

**Population = 583,867**

**April 2014**





## WHOI - PEORIA, ILLINOIS

## Compliance with Public Notice DA 13-618

**April 2014**



**Predicted Noise Limited Contour**  
**195kW - 203.1 meters HAAT**  
**Authorized TAZ-38U**  
**Directional Antenna**  
**F(50,90) - 41 dBu**



**SUMMARY OF RADIOFREQUENCY  
RADIATION STUDY**  
WHOI, PEORIA, ILLINOIS  
CHANNEL 19, 195 kW ERP, 178.7 m HAAT  
APRIL, 2014

<u>CALL</u>	<u>SERVICE</u>	<u>CHANNEL</u>	<u>FREQUENCY</u>	<u>POLARIZATION</u>	<u>ANTENNA HEIGHT ** mAGL</u>	<u>ERP (kW)</u>	<u>VERT. RELATIVE FIELD FACTOR</u>	<u>PREDICTED POWER DENSITY (mW/cm<sup>2</sup>)</u>	<u>FCC UNCONTROLLED LIMIT (mW/cm<sup>2</sup>)</u>	<u>PERCENT OF UNCONTROLLED LIMIT</u>
WHOI	DT	19	503	H & V	158.3	195.000	0.200	0.02079	0.335	6.20%
W14DL-D	DT	14	473	H	108	5.000	0.300	0.00129	0.315	0.41%
W16CT-D	DT	16	485	H	98	5.000	0.300	0.00156	0.323	0.48%
W35DE-D	DT	35	599	H	83	7.000	0.300	0.00305	0.399	0.76%
NEW	DT	17	491	H	88	5.000	0.300	0.00194	0.327	0.59%

**TOTAL PERCENTAGE OF ANSI VALUE= 8.45%**

*\*\* 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.*





**LONGLEY-RICE INTERFERENCE ANALYSIS**  
**WHOI - Channel 19**  
**195 kW - 178.7 meters HAAT**  
**PEORIA, ILLINOIS**  
**APRIL 2014**

Percent allowed new interference: 0.500  
Percent allowed new interference to non Class A LPTV: 2.000  
Census data selected 2000  
Data Base Selected  
./data/tvdb.sff

**TV INTERFERENCE and SPACING ANALYSIS PROGRAM**

Date: 04-21-2014 Time: 10:14:31

**Record Selected for Analysis**

WHOI BLCDT -20090622AFB PEORIA IL US  
Channel 19 ERP 195 kW HAAT 178. m RCAMSL 367.3 m  
Latitude 040-39-11 Longitude 0089-35-14  
Status LIC Zone 1 Border Site number: 01  
Dir Antenna Make CDB Model 00000000087384 Beam tilt N Ref Azimuth 0.0  
Last update 00000000 Cutoff date 20100727 Docket  
Comments  
Applicant WHOI LICENSEE, LLC

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility (site # 01) meets maximum height/power limits

Site number	1		
Azimuth	ERP	HAAT	41.0 dBu F(50,90)
(Deg)	(kW)	(m)	(km)
0.0	140.556	172.7	70.3
45.0	183.854	159.8	70.7
90.0	115.615	155.5	68.0
135.0	148.445	149.0	68.7
180.0	37.581	170.8	63.7
225.0	50.322	228.1	69.2
270.0	75.442	190.6	68.5
315.0	152.039	205.4	73.1

**Evaluation toward Class A Stations from site # 01**

No Spacing violations or contour overlap  
to Class A stations from site # 01

**Class A Evaluation Complete**

**SPACING VIOLATION FOUND BETWEEN STATION**

WHOI 19 PEORIA IL BLCDT 20090622AFB Site # 01

**APPENDIX B**  
**WHOI - PEORIA, ILLINOIS**  
**Channel 19, 195 kW, Page 2**

and station

SHORT TO: WHOI 19 PEORIA IL DTVPLN DTVP0662  
 040-39-11 0089-35-14  
 Req. separation 196.3 Actual separation 0.0 Short 196.3 km

LANDMOBILE SPACING VIOLATIONS FOUND

NONE from Site # 01

Checks to Site Number 01

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

\*\*\*\*\*

Start of Interference Analysis

Channel	Proposed Station Call City/State	ARN
19	WHOI PEORIA IL	BLCDT 20090622AFB

Chans	Call	City/State	Dist(km)	Status	Application	Ref. No.
19	KDMI	DES MOINES IA	361.1	LIC	BLCDT	20120627AAE
19	WGN-TV	CHICAGO IL	212.4	LIC	BMLCDT	20080201APP
19	WUSI-TV	OLNEY IL	237.0	LIC	BLEDT	20060619ABG
19	WDNI-CD	INDIANAPOLIS IN	312.5	LIC	BLDTA	20090615ADH
19	WXMI	GRAND RAPIDS MI	405.5	CP	BPCDT	20080619AKI
19	WXMI	GRAND RAPIDS MI	405.5	LIC	BLCDT	20030117ABD
19	WMTV	MADISON WI	266.6	LIC	BLCDT	20100413AAW
20	WPVN-CD	CHICAGO IL	213.8	LIC	BLDTA	20130204ABC

%%%

Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
19	KDMI	DES MOINES IA	BLCDT	-20120627AAE

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
18	KYIN	MASON CITY IA	197.4	LIC	BLEDT	-20090612AHJ
19	WHOI	PEORIA IL	361.1	LIC	BLCDT	-20090622AFB
19	KXNE-TV	NORFOLK NE	305.8	LIC	BLEDT	-20090615ADS
19	WMTV	MADISON WI	364.7	LIC	BLCDT	-20100413AAW
20	KSMQ-TV	AUSTIN MN	220.2	LIC	BLEDT	-20081223AAK
20	KETV	OMAHA NE	208.7	LIC	BLCDT	-20041222AED

**APPENDIX B**  
**WHOI - PEORIA, ILLINOIS**  
**Channel 19, 195 kW, Page 3**

19 WHOI PEORIA IL 361.1 PLN DTVPLN -DTVP0662

Total scenarios = 1

Result key: 1  
 Scenario 1 Affected station 1  
 Before Analysis

Results for: 19A IA DES MOINES BLCDT 20120627AAE LIC  
 HAAT 610.0 m, ATV ERP 839.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1052425	47930.6
not affected by terrain losses	1049983	47685.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	3569	305.3
lost to ATV IX only	3569	305.3
lost to all IX	3569	305.3

Potential Interfering Stations Included in above Scenario 1  
 18A IA MASON CITY BLEDT 20090612AHJ LIC  
 19A NE NORFOLK BLEDT 20090615ADS LIC  
 19A WI MADISON BLCDT 20100413AAW LIC

After Analysis

Results for: 19A IA DES MOINES BLCDT 20120627AAE LIC  
 HAAT 610.0 m, ATV ERP 839.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1052425	47930.6
not affected by terrain losses	1049983	47685.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	3585	309.3
lost to ATV IX only	3585	309.3
lost to all IX	3585	309.3

Potential Interfering Stations Included in above Scenario 1  
 18A IA MASON CITY BLEDT 20090612AHJ LIC  
 19A NE NORFOLK BLEDT 20090615ADS LIC  
 19A WI MADISON BLCDT 20100413AAW LIC  
 19A IL PEORIA BLCDT 20090622AFB LIC

Percent new IX = 0.0015%

Worst case new IX 0.0015% Scenario 1

#####

Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
19	WGN-TV	CHICAGO IL	BMLCDT	-20080201APP

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
18	WISE-DR	FORT WAYNE IN	221.6	APP	BPRM	-20080820AHU
18	WISE-TV	FORT WAYNE IN	221.6	LIC	BLCDT	-20091103ACK
18	WVTV	MILWAUKEE WI	137.0	LIC	BLCDT	-20101012ADH
19	WUSI-TV	OLNEY IL	340.5	LIC	BLEDT	-20060619ABG

**APPENDIX B**  
**WHOI - PEORIA, ILLINOIS**  
**Channel 19, 195 kW, Page 4**

19	WHOI	PEORIA IL	212.4	LIC	BLCDT	-20090622AFB
19	WPXD-DR	ANN ARBOR MI	362.4	APP	BPRM	-20080619ALV
19	WXMI	GRAND RAPIDS MI	194.9	CP	BPCDT	-20080619AKI
19	WXMI	GRAND RAPIDS MI	194.9	LIC	BLCDT	-20030117ABD
19	WMTV	MADISON WI	200.0	LIC	BLCDT	-20100413AAW
20	WOTV	BATTLE CREEK MI	194.3	LIC	BLCDT	-20130207AAQ
20	WHA-TV	MADISON WI	203.3	LIC	BLEDT	-20091229ACK
19	WHOI	PEORIA IL	212.4	PLN	DTVPLN	-DTVP0662

Total scenarios = 6

Result key: 2  
 Scenario 1 Affected station 2  
 Before Analysis

Results for: 19A IL CHICAGO BMLCDT 20080201APP LIC  
 HAAT 453.0 m, ATV ERP 645.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	9561534	33109.3
not affected by terrain losses	9557056	33069.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	95894	1794.1
lost to ATV IX only	95894	1794.1
lost to all IX	95894	1794.1

Potential Interfering Stations Included in above Scenario 1

18A WI MILWAUKEE	BLCDT	20101012ADH	LIC
19A MI GRAND RAPIDS	BPCDT	20080619AKI	CP
19A WI MADISON	BLCDT	20100413AAW	LIC
19A IL PEORIA	DTVPLN	DTVP0662	PLN

After Analysis

Results for: 19A IL CHICAGO BMLCDT 20080201APP LIC  
 HAAT 453.0 m, ATV ERP 645.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	9561534	33109.3
not affected by terrain losses	9557056	33069.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	96538	1858.4
lost to ATV IX only	96538	1858.4
lost to all IX	96538	1858.4

Potential Interfering Stations Included in above Scenario 1

18A WI MILWAUKEE	BLCDT	20101012ADH	LIC
19A MI GRAND RAPIDS	BPCDT	20080619AKI	CP
19A WI MADISON	BLCDT	20100413AAW	LIC
19A IL PEORIA	BLCDT	20090622AFB	LIC

Percent new IX = 0.0068%

Result key: 3  
 Scenario 2 Affected station 2  
 Before Analysis

Results for: 19A IL CHICAGO BMLCDT 20080201APP LIC  
 HAAT 453.0 m, ATV ERP 645.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	9561534	33109.3

**APPENDIX B**  
**WHOI - PEORIA, ILLINOIS**  
**Channel 19, 195 kW, Page 5**

not affected by terrain losses	9557056	33069.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	98537	1898.5
lost to ATV IX only	98537	1898.5
lost to all IX	98537	1898.5

Potential Interfering Stations Included in above Scenario	2
18A WI MILWAUKEE	BLCDT 20101012ADH LIC
19A MI GRAND RAPIDS	BLCDT 20030117ABD LIC
19A WI MADISON	BLCDT 20100413AAW LIC
19A IL PEORIA	DTVPLN DTVP0662 PLN

**After Analysis**

Results for: 19A IL CHICAGO	BMLCDT	20080201APP	LIC
HAAT 453.0 m, ATV ERP 645.0 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	9561534	33109.3	
not affected by terrain losses	9557056	33069.1	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	99181	1962.7	
lost to ATV IX only	99181	1962.7	
lost to all IX	99181	1962.7	

Potential Interfering Stations Included in above Scenario	2
18A WI MILWAUKEE	BLCDT 20101012ADH LIC
19A MI GRAND RAPIDS	BLCDT 20030117ABD LIC
19A WI MADISON	BLCDT 20100413AAW LIC
19A IL PEORIA	BLCDT 20090622AFB LIC

Percent new IX = 0.0068%

Result key: 4  
 Scenario 3 Affected station 2  
 Before Analysis

Results for: 19A IL CHICAGO	BMLCDT	20080201APP	LIC
HAAT 453.0 m, ATV ERP 645.0 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	9561534	33109.3	
not affected by terrain losses	9557056	33069.1	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	95894	1794.1	
lost to ATV IX only	95894	1794.1	
lost to all IX	95894	1794.1	

Potential Interfering Stations Included in above Scenario	3
18A WI MILWAUKEE	BLCDT 20101012ADH LIC
19A MI ANN ARBOR	BPRM 20080619ALV APP
19A MI GRAND RAPIDS	BPCDT 20080619AKI CP
19A WI MADISON	BLCDT 20100413AAW LIC
19A IL PEORIA	DTVPLN DTVP0662 PLN

**After Analysis**

Results for: 19A IL CHICAGO	BMLCDT	20080201APP	LIC
HAAT 453.0 m, ATV ERP 645.0 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	9561534	33109.3	

**APPENDIX B**  
**WHOI - PEORIA, ILLINOIS**  
**Channel 19, 195 kW, Page 6**

not affected by terrain losses	9557056	33069.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	96538	1858.4
lost to ATV IX only	96538	1858.4
lost to all IX	96538	1858.4

Potential Interfering Stations Included in above Scenario	3
18A WI MILWAUKEE	BLC DT 20101012ADH LIC
19A MI ANN ARBOR	BPRM 20080619ALV APP
19A MI GRAND RAPIDS	BPC DT 20080619AKI CP
19A WI MADISON	BLC DT 20100413AAW LIC
19A IL PEORIA	BLC DT 20090622AFB LIC

Percent new IX = 0.0068%

Result key: 5  
 Scenario 4 Affected station 2  
 Before Analysis

Results for: 19A IL CHICAGO BMLC DT 20080201APP LIC  
 HAAT 453.0 m, ATV ERP 645.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	9561534	33109.3
not affected by terrain losses	9557056	33069.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	98537	1898.5
lost to ATV IX only	98537	1898.5
lost to all IX	98537	1898.5

Potential Interfering Stations Included in above Scenario	4
18A WI MILWAUKEE	BLC DT 20101012ADH LIC
19A MI ANN ARBOR	BPRM 20080619ALV APP
19A MI GRAND RAPIDS	BLC DT 20030117ABD LIC
19A WI MADISON	BLC DT 20100413AAW LIC
19A IL PEORIA	DTVPLN DTVP0662 PLN

After Analysis

Results for: 19A IL CHICAGO BMLC DT 20080201APP LIC  
 HAAT 453.0 m, ATV ERP 645.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	9561534	33109.3
not affected by terrain losses	9557056	33069.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	99181	1962.7
lost to ATV IX only	99181	1962.7
lost to all IX	99181	1962.7

Potential Interfering Stations Included in above Scenario	4
18A WI MILWAUKEE	BLC DT 20101012ADH LIC
19A MI ANN ARBOR	BPRM 20080619ALV APP
19A MI GRAND RAPIDS	BLC DT 20030117ABD LIC
19A WI MADISON	BLC DT 20100413AAW LIC
19A IL PEORIA	BLC DT 20090622AFB LIC

Percent new IX = 0.0068%

Result key: 6  
 Scenario 5 Affected station 2

**APPENDIX B**  
**WHOI - PEORIA, ILLINOIS**  
**Channel 19, 195 kW, Page 7**

**Before Analysis**

Results for: 19A IL CHICAGO BMLCDT 20080201APP LIC  
 HAAT 453.0 m, ATV ERP 645.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	9561534	33109.3
not affected by terrain losses	9557056	33069.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	95894	1794.1
lost to ATV IX only	95894	1794.1
lost to all IX	95894	1794.1

Potential Interfering Stations Included in above Scenario 5

18A WI MILWAUKEE	BLCDDT	20101012ADH	LIC
19A MI GRAND RAPIDS	BPCDDT	20080619AKI	CP
19A WI MADISON	BLCDDT	20100413AAW	LIC
19A IL PEORIA	DTVPLN	DTVP0662	PLN

**After Analysis**

Results for: 19A IL CHICAGO BMLCDT 20080201APP LIC  
 HAAT 453.0 m, ATV ERP 645.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	9561534	33109.3
not affected by terrain losses	9557056	33069.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	96538	1858.4
lost to ATV IX only	96538	1858.4
lost to all IX	96538	1858.4

Potential Interfering Stations Included in above Scenario 5

18A WI MILWAUKEE	BLCDDT	20101012ADH	LIC
19A MI GRAND RAPIDS	BPCDDT	20080619AKI	CP
19A WI MADISON	BLCDDT	20100413AAW	LIC
19A IL PEORIA	BLCDDT	20090622AFB	LIC

Percent new IX = 0.0068%

Result key: 7  
 Scenario 6 Affected station 2  
 Before Analysis

Results for: 19A IL CHICAGO BMLCDT 20080201APP LIC  
 HAAT 453.0 m, ATV ERP 645.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	9561534	33109.3
not affected by terrain losses	9557056	33069.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	98537	1898.5
lost to ATV IX only	98537	1898.5
lost to all IX	98537	1898.5

Potential Interfering Stations Included in above Scenario 6

18A WI MILWAUKEE	BLCDDT	20101012ADH	LIC
19A MI GRAND RAPIDS	BLCDDT	20030117ABD	LIC
19A WI MADISON	BLCDDT	20100413AAW	LIC
19A IL PEORIA	DTVPLN	DTVP0662	PLN

**After Analysis**



**APPENDIX B**  
**WHOI - PEORIA, ILLINOIS**  
**Channel 19, 195 kW, Page 8**

Results for: 19A IL CHICAGO BMLCDT 20080201APP LIC  
 HAAT 453.0 m, ATV ERP 645.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	9561534	33109.3
not affected by terrain losses	9557056	33069.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	99181	1962.7
lost to ATV IX only	99181	1962.7
lost to all IX	99181	1962.7

Potential Interfering Stations Included in above Scenario 6

18A WI MILWAUKEE	BLC DT	20101012ADH	LIC
19A MI GRAND RAPIDS	BLC DT	20030117ABD	LIC
19A WI MADISON	BLC DT	20100413AAW	LIC
19A IL PEORIA	BLC DT	20090622AFB	LIC

Percent new IX = 0.0068%

Worst case new IX 0.0068% Scenario 2

#####

**Analysis of Interference to Affected Station 3**

**Analysis of current record**

Channel	Call	City/State	Application	Ref. No.
19	WUSI-TV	OLNEY IL	BLED T	-20060619ABG

**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
19	WGN-TV	CHICAGO IL	340.5	LIC	BMLCD T	-20080201APP
19	WHOI	PEORIA IL	237.0	LIC	BLC DT	-20090622AFB
19	WBKI-DT	BARDSTOWN KY	270.9	ADD	BPRM	-20001229ABL
19	WBKI-TV	CAMPBELLSVILLE KY	275.9	LIC	BLC DT	-20080811ABA
20	WHMB-TV	INDIANAPOLIS IN	202.7	LIC	BLC DT	-20120503AAT
20	WHMB-DR	INDIANAPOLIS IN	202.7	APP	BPRM	-20080619AEU
19	WHOI	PEORIA IL	237.0	PLN	DTVPLN	-DTVP0662

Total scenarios = 3

Result key: 8

Scenario 1 Affected station 3

Before Analysis

Results for: 19A IL OLNEY BLED T 20060619ABG LIC  
 HAAT 283.0 m, ATV ERP 46.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	308947	17594.9
not affected by terrain losses	308947	17594.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	10	4.0
lost to ATV IX only	10	4.0
lost to all IX	10	4.0

Potential Interfering Stations Included in above Scenario 1

19A KY CAMPBELLSVILLE	BLC DT	20080811ABA	LIC
-----------------------	--------	-------------	-----

After Analysis

**APPENDIX B**  
**WHOI - PEORIA, ILLINOIS**  
**Channel 19, 195 kW, Page 9**

Results for: 19A IL OLNEY                      BLEDT              20060619ABG    LIC  
             HAAT   283.0 m, ATV ERP    46.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	308947	17594.9
not affected by terrain losses	308947	17594.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	35	12.0
lost to ATV IX only	35	12.0
lost to all IX	35	12.0

Potential Interfering Stations Included in above Scenario              1  
 19A KY CAMPBELLSVILLE              BLCDT              20080811ABA    LIC  
 19A IL PEORIA                      BLCDT              20090622AFB    LIC

Percent new IX =              0.0081%

Result key:                      9  
 Scenario                      2    Affected station                      3  
 Before Analysis

Results for: 19A IL OLNEY                      BLEDT              20060619ABG    LIC  
             HAAT   283.0 m, ATV ERP    46.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	308947	17594.9
not affected by terrain losses	308947	17594.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	3682	28.0
lost to ATV IX only	3682	28.0
lost to all IX	3682	28.0

Potential Interfering Stations Included in above Scenario              2  
 19A KY BARDSTOWN                      BPRM              20001229ABL    ADD  
 19A KY CAMPBELLSVILLE              BLCDT              20080811ABA    LIC

After Analysis

Results for: 19A IL OLNEY                      BLEDT              20060619ABG    LIC  
             HAAT   283.0 m, ATV ERP    46.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	308947	17594.9
not affected by terrain losses	308947	17594.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	3707	36.1
lost to ATV IX only	3707	36.1
lost to all IX	3707	36.1

Potential Interfering Stations Included in above Scenario              2  
 19A KY BARDSTOWN                      BPRM              20001229ABL    ADD  
 19A KY CAMPBELLSVILLE              BLCDT              20080811ABA    LIC  
 19A IL PEORIA                      BLCDT              20090622AFB    LIC

Percent new IX =              0.0082%

Result key:                      10  
 Scenario                      3    Affected station                      3  
 Before Analysis

Results for: 19A IL OLNEY                      BLEDT              20060619ABG    LIC  
             HAAT   283.0 m, ATV ERP    46.0 kW

**APPENDIX B**  
**WHOI - PEORIA, ILLINOIS**  
**Channel 19, 195 kW, Page 10**

	POPULATION	AREA (sq km)
within Noise Limited Contour	308947	17594.9
not affected by terrain losses	308947	17594.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	10	4.0
lost to ATV IX only	10	4.0
lost to all IX	10	4.0

Potential Interfering Stations Included in above Scenario 3  
 19A KY CAMPBELLSVILLE BLCDT 20080811ABA LIC

**After Analysis**

Results for: 19A IL OLNEY BLEDT 20060619ABG LIC  
 HAAT 283.0 m, ATV ERP 46.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	308947	17594.9
not affected by terrain losses	308947	17594.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	35	12.0
lost to ATV IX only	35	12.0
lost to all IX	35	12.0

Potential Interfering Stations Included in above Scenario 3  
 19A KY CAMPBELLSVILLE BLCDT 20080811ABA LIC  
 19A IL PEORIA BLCDT 20090622AFB LIC

Percent new IX = 0.0081%

Worst case new IX 0.0082% Scenario 2

#####

**Analysis of Interference to Affected Station 4**

**Analysis of current record**

Channel	Call	City/State	Application Ref. No.
19	WDNI-CD	INDIANAPOLIS IN	BLDTA -20090615ADH

**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
19	WGN-TV	CHICAGO IL	265.6	LIC	BMLCDT -20080201APP
19	WUSI-TV	OLNEY IL	206.3	LIC	BLEDT -20060619ABG
19	WHOI	PEORIA IL	312.5	LIC	BLCDDT -20090622AFB
19	WL9DT-D	FORT WAYNE IN	160.8	CP	BNPDTL -20091228AAW
19	WBKI-DT	BARDSTOWN KY	218.4	ADD	BPRM -20001229ABL
19	WBKI-TV	CAMPBELLSVILLE KY	258.1	LIC	BLCDDT -20080811ABA
19	WPXD-DR	ANN ARBOR MI	377.5	APP	BPRM -20080619ALV
19	WXMI	GRAND RAPIDS MI	324.1	CP	BPCDDT -20080619AKI
19	WXMI	GRAND RAPIDS MI	324.1	LIC	BLCDDT -20030117ABD
19	WBQC-LP	CINCINNATI OH	154.9	APP	BDISDTL -20121029AAX
19	WVAH-TV	CHARLESTON WV	391.8	LIC	BLCDDT -20050621AAV
20	WHMB-TV	INDIANAPOLIS IN	15.1	LIC	BLCDDT -20120503AAT
20	WHMB-DR	INDIANAPOLIS IN	15.1	APP	BPRM -20080619AEU
19	WHOI	PEORIA IL	312.5	PLN	DTVPLN -DTVP0662

Proposal causes no interference

#####

**APPENDIX B**  
**WHOI - PEORIA, ILLINOIS**  
**Channel 19, 195 kW, Page 11**

**Analysis of Interference to Affected Station 5**

**Analysis of current record**

Channel	Call	City/State	Application Ref. No.
19	WXMI	GRAND RAPIDS MI	BPCDT -20080619AKI

**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
18	WISE-DR	FORT WAYNE IN	178.5	APP	BPRM -20080820AHU
18	WISE-TV	FORT WAYNE IN	178.5	LIC	BLCDT -20091103ACK
18	WVTV	MILWAUKEE WI	198.4	LIC	BLCDT -20101012ADH
19	WGN-TV	CHICAGO IL	194.9	LIC	BMLCDT -20080201APP
19	WHOI	PEORIA IL	405.5	LIC	BLCDT -20090622AFB
19	WPXD-DR	ANN ARBOR MI	183.1	APP	BPRM -20080619ALV
19	WMTV	MADISON WI	324.6	LIC	BLCDT -20100413AAW
20	WOTV	BATTLE CREEK MI	14.0	LIC	BLCDT -20130207AAQ
19	WHOI	PEORIA IL	405.5	PLN	DTVPLN -DTVP0662

Proposal causes no interference

#####

**Analysis of Interference to Affected Station 6**

**Analysis of current record**

Channel	Call	City/State	Application Ref. No.
19	WXMI	GRAND RAPIDS MI	BLCDT -20030117ABD

**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
18	WISE-DR	FORT WAYNE IN	178.5	APP	BPRM -20080820AHU
18	WISE-TV	FORT WAYNE IN	178.5	LIC	BLCDT -20091103ACK
18	WVTV	MILWAUKEE WI	198.4	LIC	BLCDT -20101012ADH
19	WGN-TV	CHICAGO IL	194.9	LIC	BMLCDT -20080201APP
19	WHOI	PEORIA IL	405.5	LIC	BLCDT -20090622AFB
19	WPXD-DR	ANN ARBOR MI	183.1	APP	BPRM -20080619ALV
19	WMTV	MADISON WI	324.6	LIC	BLCDT -20100413AAW
20	WOTV	BATTLE CREEK MI	14.0	LIC	BLCDT -20130207AAQ
19	WHOI	PEORIA IL	405.5	PLN	DTVPLN -DTVP0662

Proposal causes no interference

#####

**Analysis of Interference to Affected Station 7**

**Analysis of current record**

Channel	Call	City/State	Application Ref. No.
19	WMTV	MADISON WI	BLCDT -20100413AAW

**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
18	WVTV	MILWAUKEE WI	128.6	LIC	BLCDT -20101012ADH
19	KDMI	DES MOINES IA	364.7	LIC	BLCDT -20120627AAE
19	WGN-TV	CHICAGO IL	200.0	LIC	BMLCDT -20080201APP
19	WHOI	PEORIA IL	266.6	LIC	BLCDT -20090622AFB
19	WXMI	GRAND RAPIDS MI	324.6	CP	BPCDT -20080619AKI
19	WXMI	GRAND RAPIDS MI	324.6	LIC	BLCDT -20030117ABD
19	WZMQ	MARQUETTE MI	410.1	LIC	BLCDT -20100928AJX
20	WHA-TV	MADISON WI	3.9	LIC	BLEDT -20091229ACK

**APPENDIX B**  
**WHOI - PEORIA, ILLINOIS**  
**Channel 19, 195 kW, Page 12**

19    WHOI            PEORIA IL                            266.6    PLN            DTVPLN            -DTVP0662

Total scenarios =    2

Result key:            11  
Scenario            1    Affected station            7  
Before Analysis

Results for: 19A WI MADISON                            BLCDT            20100413AAW    LIC  
HAAT    414.0 m, ATV ERP    155.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1411755	27978.5
not affected by terrain losses	1405709	27648.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	104421	1313.5
lost to ATV IX only	104421	1313.5
lost to all IX	104421	1313.5

Potential Interfering Stations Included in above Scenario            1

18A WI MILWAUKEE	BLCDT	20101012ADH	LIC
19A IA DES MOINES	BLCDT	20120627AAE	LIC
19A IL CHICAGO	BMLCDT	20080201APP	LIC
19A MI GRAND RAPIDS	BPCDT	20080619AKI	CP
20A WI MADISON	BLEDT	20091229ACK	LIC
19A IL PEORIA	DTVPLN	DTVP0662	PLN

After Analysis

Results for: 19A WI MADISON                            BLCDT            20100413AAW    LIC  
HAAT    414.0 m, ATV ERP    155.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1411755	27978.5
not affected by terrain losses	1405709	27648.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	104444	1321.6
lost to ATV IX only	104444	1321.6
lost to all IX	104444	1321.6

Potential Interfering Stations Included in above Scenario            1

18A WI MILWAUKEE	BLCDT	20101012ADH	LIC
19A IA DES MOINES	BLCDT	20120627AAE	LIC
19A IL CHICAGO	BMLCDT	20080201APP	LIC
19A MI GRAND RAPIDS	BPCDT	20080619AKI	CP
20A WI MADISON	BLEDT	20091229ACK	LIC
19A IL PEORIA	BLCDT	20090622AFB	LIC

Percent new IX =        0.0018%

Result key:            12  
Scenario            2    Affected station            7  
Before Analysis

Results for: 19A WI MADISON                            BLCDT            20100413AAW    LIC  
HAAT    414.0 m, ATV ERP    155.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1411755	27978.5
not affected by terrain losses	1405709	27648.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	104421	1313.5

**APPENDIX B**  
**WHOI - PEORIA, ILLINOIS**  
**Channel 19, 195 kW, Page 13**

lost to ATV IX only	104421	1313.5
lost to all IX	104421	1313.5

Potential Interfering Stations Included in above Scenario				2
18A WI MILWAUKEE	BLC DT	20101012ADH	LIC	
19A IA DES MOINES	BLC DT	20120627AAE	LIC	
19A IL CHICAGO	BMLC DT	20080201APP	LIC	
19A MI GRAND RAPIDS	BLC DT	20030117ABD	LIC	
20A WI MADISON	BLE DT	20091229ACK	LIC	
19A IL PEORIA	DTVPLN	DTVP0662	PLN	

**After Analysis**

Results for: 19A WI MADISON		BLC DT	20100413AAW	LIC
HAAT 414.0 m, ATV ERP 155.0 kW				
	POPULATION	AREA (sq km)		
within Noise Limited Contour	1411755	27978.5		
not affected by terrain losses	1405709	27648.1		
lost to NTSC IX	0	0.0		
lost to additional IX by ATV	104444	1321.6		
lost to ATV IX only	104444	1321.6		
lost to all IX	104444	1321.6		

Potential Interfering Stations Included in above Scenario				2
18A WI MILWAUKEE	BLC DT	20101012ADH	LIC	
19A IA DES MOINES	BLC DT	20120627AAE	LIC	
19A IL CHICAGO	BMLC DT	20080201APP	LIC	
19A MI GRAND RAPIDS	BLC DT	20030117ABD	LIC	
20A WI MADISON	BLE DT	20091229ACK	LIC	
19A IL PEORIA	BLC DT	20090622AFB	LIC	

Percent new IX = 0.0018%

Worst case new IX 0.0018% Scenario 1

#####

**Analysis of Interference to Affected Station 8**

**Analysis of current record**

Channel	Call	City/State	Application	Ref. No.
20	WPVN-CD	CHICAGO IL	BLDTA	-20130204ABC

**Stations Potentially Affecting This Station**

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
19	WGN-TV	CHICAGO IL	1.4	LIC	BMLC DT	-20080201APP
19	WHOI	PEORIA IL	213.8	LIC	BLC DT	-20090622AFB
20	WHMB-TV	INDIANAPOLIS IN	251.8	LIC	BLC DT	-20120503AAT
20	WHMB-DR	INDIANAPOLIS IN	251.8	APP	BPRM	-20080619AEU
20	WUVI-LD	WEST LAFAYETTE IN	52.5	LIC	BLDTL	-20120207AAV
20	WOTV	BATTLE CREEK MI	193.1	LIC	BLC DT	-20130207AAQ
20	WHA-TV	MADISON WI	203.2	LIC	BLE DT	-20091229ACK
21	WYCC	CHICAGO IL	1.1	LIC	BLE DT	-20030501ABC

Proposed station is beyond the site to  
nearest cell evaluation distance

APPENDIX B  
 WHOI - PEORIA, ILLINOIS  
 Channel 19, 195 kW, Page 14

#####

Analysis of Interference to Affected Station 9

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
19	WHOI	PEORIA IL	BLCDT	-20090622AFB

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
19	KDMI	DES MOINES IA	361.1	LIC	BLCDT	-20120627AAE
19	WGN-TV	CHICAGO IL	212.4	LIC	BMLCDT	-20080201APP
19	WUSI-TV	OLNEY IL	237.0	LIC	BLEDT	-20060619ABG
19	WXMI	GRAND RAPIDS MI	405.5	CP	BPCDT	-20080619AKI
19	WXMI	GRAND RAPIDS MI	405.5	LIC	BLCDT	-20030117ABD
19	WMTV	MADISON WI	266.6	LIC	BLCDT	-20100413AAW

Total scenarios = 1

Result key: 13  
 Scenario 1 Affected station 9  
 Before Analysis

Results for: 19A IL PEORIA BLCDT 20090622AFB LIC  
 HAAT 178.0 m, ATV ERP 195.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	655268	15896.2
not affected by terrain losses	655268	15888.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	4441	591.1
lost to ATV IX only	4441	591.1
lost to all IX	4441	591.1

Potential Interfering Stations Included in above Scenario 1

19A IL CHICAGO	BMLCDT	20080201APP	LIC
19A WI MADISON	BLCDT	20100413AAW	LIC

#####

FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED