

ENGINEERING EXHIBIT

Incentive Auction Channel Reassignment

Amendment to Application for Major Modification of Digital Television Station Construction Permit

prepared for

Ohio University
WOUC-TV Cambridge, OH
Facility ID 50141
Ch. 6 7.11 kW 338 m

Ohio University (“*Ohio*”) is the licensee of digital television station WOUC-TV, Channel 35, Facility ID 50141, Cambridge, OH. Reassignment of WOUC-TV from Channel 35 to Channel 6 was specified in the *Incentive Auction Closing and Channel Reassignment Public Notice* (“*CCRPN*”, DA 17-317, released April 13, 2017). A Construction Permit (file# 0000025584) authorizes operation on Channel 6 at 1.08 kW effective radiated power (“ERP”) with a directional antenna at 338 meters height above average terrain. During the second filing window¹, *Ohio* submitted a major change application (LMS file# 0000033599) to change WOUC-TV’s post-auction facility to Channel 4 and utilize an ERP of 7.11 kW, nondirectional. *Ohio* herein amends the WOUC-TV application 0000033599 to now specify operation on the original reassignment Channel 6 and to change to a directional antenna.

The WOUC-TV channel change application was found to be mutually exclusive with the channel change applications for WQED (Fac ID 41315, Pittsburgh PA, file# 0000034294) and WTLW (Fac ID 1222, Lima OH, file# 0000033916). WQED and WTLW were both reassigned to Channel 2, and both proposed to change to Channel 4 in the second filing window. *Ohio* has reached a settlement with WQED and WTLW which calls for *Ohio* to make technical changes to the WOUC-TV proposal as described in this amendment.

¹Public Notice “*Incentive Auction Task Force and Media Bureau Announce the Opening of the Second Filing Window for Eligible Full Power and Class A Television Station—October 3 Through November 2, 2017*” DA 17-911, released September 20, 2017.

The proposed Channel 6 operation will employ a new antenna system to be side-mounted on the WOUC-TV tower. The tower structure corresponds to FCC Antenna Structure Registration number 1008520. No change to the overall structure height will result.

The proposed antenna is an elliptically polarized directional Dielectric model DCBR-C4-1MBA/4L-1 (50 percent vertical polarization). The maximum horizontally polarized ERP is 7.11 kW and the maximum vertically polarized ERP is 3.85 kW. The vertically polarized component will not exceed the horizontally polarized component at any azimuth. The directional antenna's azimuthal patterns are depicted in Figures 1 and 1A for horizontal and vertical polarization, respectively. The antenna's elevation pattern is depicted in Figure 2.

Figure 3 supplies a map that demonstrates compliance with §73.625(a)(1) regarding coverage of the entire principal community. The proposed facility's predicted population exceeds 95 percent of the *CCRPN* baseline facility's population.

Interference study per FCC OET Bulletin 69² shows that the proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby post-auction full service and Class A television stations and reassignments as required by §73.616. The interference study output report is provided as Table 1.

The site location is within the Canadian coordination zone (200 km to the Canada border). There are no Canada television stations or allotments on relevant channels located within the pertinent culling distances for interference analysis consideration, based on current FCC LMS data.

The nearest FCC monitoring station is 397 km distant at Laurel, MD. This exceeds by a large margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring

²FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 ("OET-69"). This analysis employed the FCC's current "TVStudy" software with the default application processing template settings, 2 km cell size, and 1 km terrain increment. Comparisons of various results of this computer program (run on a Mac processor) to the FCC's implementation of TVStudy show excellent correlation.

coordination with “quiet” zones specified in §73.1030(a) and (b). There are no authorized AM stations within 3 kilometers of the site.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the FCC’s OET Bulletin Number 65. Based on OET-65 equation (10), and considering the worst-case of 100 percent antenna relative field in downward elevations, the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is $4.0 \mu\text{W}/\text{cm}^2$, which is 2.0 percent of the general population/uncontrolled maximum permitted exposure limit. This is below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal’s contribution is less than five percent. The calculated signal density will be even lower when the antenna’s elevation pattern is considered.

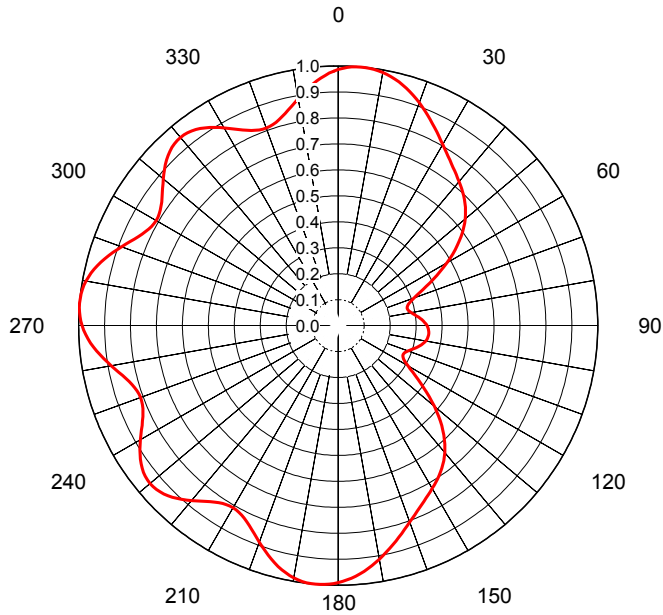
The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC’s guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower, or antenna from RF electromagnetic field exposure in excess of FCC guidelines. This exhibit is limited to the evaluation of exposure to RF electromagnetic field. No increase in structure height is proposed.

List of Attachments

Figure 1, 1A	Antenna Azimuthal Pattern
Figure 2	Antenna Elevation Pattern
Figure 3	Proposed Coverage Contours
Table 1	OET Bulletin 69 Interference Study
Form 2100	Saved Version of Engineering Sections from FCC Form at Time of Upload

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E.	February 28, 2018	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600



AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-70930-3**
Date **16-Nov-17**
Call Letters **WOUC**
Channel **6**
Frequency **85 MHz**
Antenna Type **DCBR-C4-1MBA/4L-1**
Gain **1.61 (2.06dB)**
Calculated

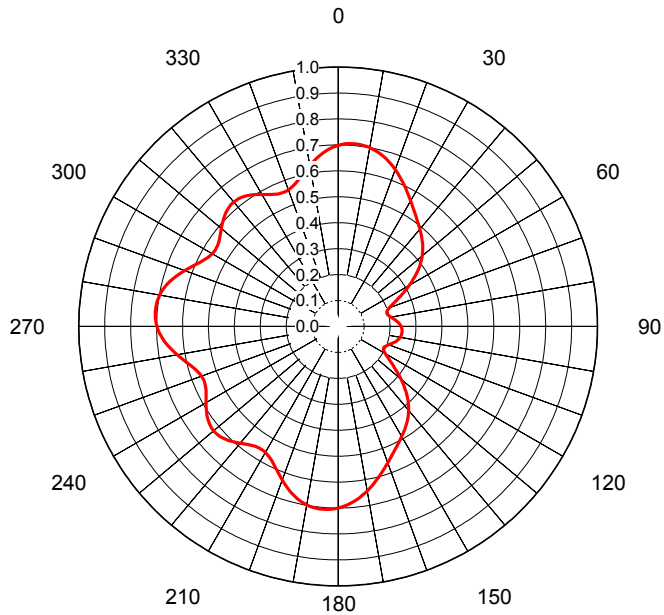
In free space

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.987	36	0.753	72	0.290	108	0.298	144	0.679	180	0.990	216	0.839	252	0.814	288	0.912
1	0.992	37	0.746	73	0.283	109	0.292	145	0.687	181	0.994	217	0.848	253	0.819	289	0.900
2	0.995	38	0.738	74	0.278	110	0.286	146	0.695	182	0.996	218	0.858	254	0.826	290	0.888
3	0.998	39	0.731	75	0.275	111	0.281	147	0.703	183	0.998	219	0.869	255	0.834	291	0.876
4	1.000	40	0.724	76	0.274	112	0.278	148	0.710	184	1.000	220	0.880	256	0.843	292	0.864
5	1.000	41	0.717	77	0.275	113	0.275	149	0.717	185	1.000	221	0.890	257	0.853	293	0.853
6	1.000	42	0.710	78	0.278	114	0.274	150	0.724	186	1.000	222	0.901	258	0.864	294	0.843
7	0.998	43	0.703	79	0.281	115	0.275	151	0.731	187	0.998	223	0.910	259	0.876	295	0.834
8	0.996	44	0.695	80	0.286	116	0.278	152	0.738	188	0.995	224	0.919	260	0.888	296	0.826
9	0.994	45	0.687	81	0.292	117	0.283	153	0.746	189	0.992	225	0.927	261	0.900	297	0.819
10	0.990	46	0.679	82	0.298	118	0.290	154	0.753	190	0.987	226	0.934	262	0.912	298	0.814
11	0.986	47	0.670	83	0.305	119	0.300	155	0.761	191	0.981	227	0.939	263	0.924	299	0.811
12	0.980	48	0.660	84	0.311	120	0.311	156	0.769	192	0.973	228	0.943	264	0.935	300	0.810
13	0.974	49	0.650	85	0.317	121	0.324	157	0.778	193	0.965	229	0.945	265	0.946	301	0.811
14	0.968	50	0.639	86	0.323	122	0.339	158	0.787	194	0.956	230	0.946	266	0.956	302	0.813
15	0.960	51	0.627	87	0.329	123	0.354	159	0.796	195	0.946	231	0.945	267	0.965	303	0.817
16	0.952	52	0.614	88	0.334	124	0.371	160	0.806	196	0.935	232	0.943	268	0.973	304	0.823
17	0.943	53	0.600	89	0.338	125	0.389	161	0.816	197	0.924	233	0.939	269	0.981	305	0.830
18	0.934	54	0.586	90	0.342	126	0.408	162	0.826	198	0.912	234	0.934	270	0.987	306	0.839
19	0.924	55	0.570	91	0.345	127	0.427	163	0.837	199	0.900	235	0.927	271	0.992	307	0.848
20	0.914	56	0.554	92	0.347	128	0.446	164	0.848	200	0.888	236	0.919	272	0.995	308	0.858
21	0.903	57	0.537	93	0.349	129	0.464	165	0.859	201	0.876	237	0.910	273	0.998	309	0.869
22	0.892	58	0.520	94	0.350	130	0.483	166	0.870	202	0.864	238	0.901	274	1.000	310	0.880
23	0.881	59	0.502	95	0.350	131	0.502	167	0.881	203	0.853	239	0.890	275	1.000	311	0.890
24	0.870	60	0.483	96	0.350	132	0.520	168	0.892	204	0.843	240	0.880	276	1.000	312	0.901
25	0.859	61	0.464	97	0.349	133	0.537	169	0.903	205	0.834	241	0.869	277	0.998	313	0.910
26	0.848	62	0.446	98	0.347	134	0.554	170	0.914	206	0.826	242	0.858	278	0.995	314	0.919
27	0.837	63	0.427	99	0.345	135	0.570	171	0.924	207	0.819	243	0.848	279	0.992	315	0.927
28	0.826	64	0.408	100	0.342	136	0.586	172	0.934	208	0.814	244	0.839	280	0.987	316	0.934
29	0.816	65	0.389	101	0.338	137	0.600	173	0.943	209	0.811	245	0.830	281	0.981	317	0.939
30	0.806	66	0.371	102	0.334	138	0.614	174	0.952	210	0.810	246	0.823	282	0.973	318	0.943
31	0.796	67	0.354	103	0.329	139	0.627	175	0.960	211	0.811	247	0.817	283	0.965	319	0.945
32	0.787	68	0.339	104	0.323	140	0.639	176	0.968	212	0.813	248	0.813	284	0.956	320	0.946
33	0.778	69	0.324	105	0.317	141	0.650	177	0.974	213	0.817	249	0.811	285	0.946	321	0.945
34	0.769	70	0.311	106	0.311	142	0.660	178	0.980	214	0.823	250	0.810	286	0.935	322	0.943
35	0.761	71	0.300	107	0.305	143	0.670	179	0.986	215	0.830	251	0.811	287	0.924	323	0.939

Figure 1
Antenna Azimuthal Pattern
Horizontal Polarization
WOUC-TV Cambridge, OH
Facility ID 50141
Ch. 6 7.11 kW 338 m

prepared for
Ohio University

February, 2018



AZIMUTH PATTERN Vertical Polarization

In Free Space

Proposal No. **C-70930-3**
Date **16-Nov-17**
Call Letters **WOUC**
Channel **6**
Frequency **85 MHz**
Antenna Type **DCBR-C4-1MBA/4L-1**
Gain **1.68 (2.25dB)**
Calculated

In free space

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.699	36	0.515	72	0.200	108	0.215	144	0.453	180	0.700	216	0.567	252	0.568	288	0.648
1	0.702	37	0.508	73	0.197	109	0.211	145	0.459	181	0.703	217	0.571	253	0.574	289	0.639
2	0.704	38	0.502	74	0.195	110	0.207	146	0.466	182	0.705	218	0.576	254	0.580	290	0.630
3	0.706	39	0.496	75	0.194	111	0.203	147	0.472	183	0.706	219	0.582	255	0.587	291	0.621
4	0.707	40	0.490	76	0.195	112	0.200	148	0.478	184	0.707	220	0.588	256	0.595	292	0.612
5	0.707	41	0.484	77	0.197	113	0.197	149	0.484	185	0.707	221	0.594	257	0.603	293	0.603
6	0.707	42	0.478	78	0.200	114	0.195	150	0.490	186	0.707	222	0.599	258	0.612	294	0.595
7	0.706	43	0.472	79	0.203	115	0.194	151	0.496	187	0.706	223	0.605	259	0.621	295	0.587
8	0.705	44	0.466	80	0.207	116	0.195	152	0.502	188	0.704	224	0.610	260	0.630	296	0.580
9	0.703	45	0.459	81	0.211	117	0.197	153	0.508	189	0.702	225	0.615	261	0.639	297	0.574
10	0.700	46	0.453	82	0.215	118	0.200	154	0.515	190	0.699	226	0.619	262	0.648	298	0.568
11	0.697	47	0.446	83	0.220	119	0.204	155	0.521	191	0.695	227	0.622	263	0.656	299	0.564
12	0.693	48	0.439	84	0.224	120	0.210	156	0.528	192	0.690	228	0.624	264	0.664	300	0.561
13	0.689	49	0.431	85	0.228	121	0.217	157	0.536	193	0.684	229	0.626	265	0.671	301	0.559
14	0.684	50	0.423	86	0.232	122	0.226	158	0.543	194	0.678	230	0.626	266	0.678	302	0.558
15	0.678	51	0.414	87	0.235	123	0.235	159	0.551	195	0.671	231	0.626	267	0.684	303	0.559
16	0.672	52	0.405	88	0.238	124	0.245	160	0.559	196	0.664	232	0.624	268	0.690	304	0.560
17	0.666	53	0.396	89	0.241	125	0.256	161	0.568	197	0.656	233	0.622	269	0.695	305	0.563
18	0.659	54	0.385	90	0.243	126	0.268	162	0.576	198	0.648	234	0.619	270	0.699	306	0.567
19	0.652	55	0.375	91	0.245	127	0.280	163	0.585	199	0.639	235	0.615	271	0.702	307	0.571
20	0.644	56	0.364	92	0.246	128	0.292	164	0.593	200	0.630	236	0.610	272	0.704	308	0.576
21	0.636	57	0.353	93	0.247	129	0.304	165	0.602	201	0.621	237	0.605	273	0.706	309	0.582
22	0.628	58	0.341	94	0.247	130	0.316	166	0.611	202	0.612	238	0.599	274	0.707	310	0.588
23	0.619	59	0.329	95	0.247	131	0.329	167	0.619	203	0.603	239	0.594	275	0.707	311	0.594
24	0.611	60	0.316	96	0.247	132	0.341	168	0.628	204	0.595	240	0.588	276	0.707	312	0.599
25	0.602	61	0.304	97	0.247	133	0.353	169	0.636	205	0.587	241	0.582	277	0.706	313	0.605
26	0.593	62	0.292	98	0.246	134	0.364	170	0.644	206	0.580	242	0.576	278	0.704	314	0.610
27	0.585	63	0.280	99	0.245	135	0.375	171	0.652	207	0.574	243	0.571	279	0.702	315	0.615
28	0.576	64	0.268	100	0.243	136	0.385	172	0.659	208	0.568	244	0.567	280	0.699	316	0.619
29	0.568	65	0.256	101	0.241	137	0.396	173	0.666	209	0.564	245	0.563	281	0.695	317	0.622
30	0.559	66	0.245	102	0.238	138	0.405	174	0.672	210	0.561	246	0.560	282	0.690	318	0.624
31	0.551	67	0.235	103	0.235	139	0.414	175	0.678	211	0.559	247	0.559	283	0.684	319	0.626
32	0.543	68	0.226	104	0.232	140	0.423	176	0.684	212	0.558	248	0.558	284	0.678	320	0.626
33	0.536	69	0.217	105	0.228	141	0.431	177	0.689	213	0.559	249	0.559	285	0.671	321	0.626
34	0.528	70	0.210	106	0.224	142	0.439	178	0.693	214	0.560	250	0.561	286	0.664	322	0.624
35	0.521	71	0.204	107	0.220	143	0.446	179	0.697	215	0.563	251	0.564	287	0.656	323	0.622

Figure 1A
Antenna Azimuthal Pattern
Vertical Polarization
WOUC-TV Cambridge, OH
Facility ID 50141
Ch. 6 7.11 kW 338 m

prepared for
Ohio University

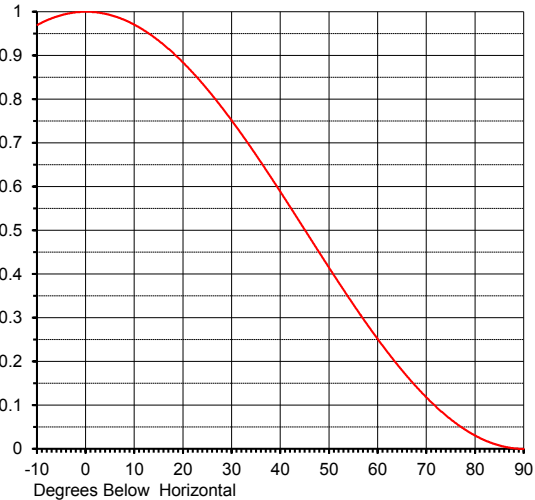
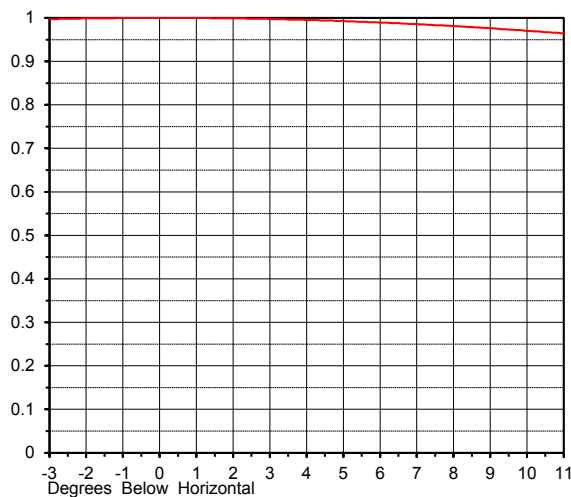
February, 2018

ELEVATION PATTERN

Proposal No. **C-70930-3**
 Date **16-Nov-17**
 Call Letters **WOUC**
 Channel **6**
 Frequency **85 MHz**
 Antenna Type **DCBR-C4-1MBA/4L-1**

RMS Directivity at Main Lobe **1.1 (0.41 dB)**
 RMS Directivity at Horizontal **1.1 (0.41 dB)**
Calculated

Beam Tilt **0.00 deg**
 Pattern Number **01C011000**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.970	10.0	0.970	30.0	0.750	50.0	0.413	70.0	0.117
-9.0	0.976	11.0	0.964	31.0	0.735	51.0	0.396	71.0	0.106
-8.0	0.981	12.0	0.957	32.0	0.719	52.0	0.379	72.0	0.095
-7.0	0.985	13.0	0.949	33.0	0.703	53.0	0.362	73.0	0.085
-6.0	0.989	14.0	0.941	34.0	0.687	54.0	0.345	74.0	0.076
-5.0	0.992	15.0	0.933	35.0	0.671	55.0	0.329	75.0	0.067
-4.0	0.995	16.0	0.924	36.0	0.655	56.0	0.313	76.0	0.059
-3.0	0.997	17.0	0.915	37.0	0.638	57.0	0.297	77.0	0.051
-2.0	0.999	18.0	0.905	38.0	0.621	58.0	0.281	78.0	0.043
-1.0	1.000	19.0	0.894	39.0	0.604	59.0	0.265	79.0	0.036
0.0	1.000	20.0	0.883	40.0	0.587	60.0	0.250	80.0	0.030
1.0	1.000	21.0	0.872	41.0	0.570	61.0	0.235	81.0	0.024
2.0	0.999	22.0	0.860	42.0	0.552	62.0	0.220	82.0	0.019
3.0	0.997	23.0	0.847	43.0	0.535	63.0	0.206	83.0	0.015
4.0	0.995	24.0	0.835	44.0	0.517	64.0	0.192	84.0	0.011
5.0	0.992	25.0	0.821	45.0	0.500	65.0	0.179	85.0	0.008
6.0	0.989	26.0	0.808	46.0	0.483	66.0	0.165	86.0	0.005
7.0	0.985	27.0	0.794	47.0	0.465	67.0	0.153	87.0	0.003
8.0	0.981	28.0	0.780	48.0	0.448	68.0	0.140	88.0	0.001
9.0	0.976	29.0	0.765	49.0	0.430	69.0	0.128	89.0	0.000
								90.0	0.000

Figure 2
Antenna Elevation Pattern
WOUC-TV Cambridge, OH
Facility ID 50141
Ch. 6 7.11 kW 338 m

prepared for
Ohio University

February, 2018

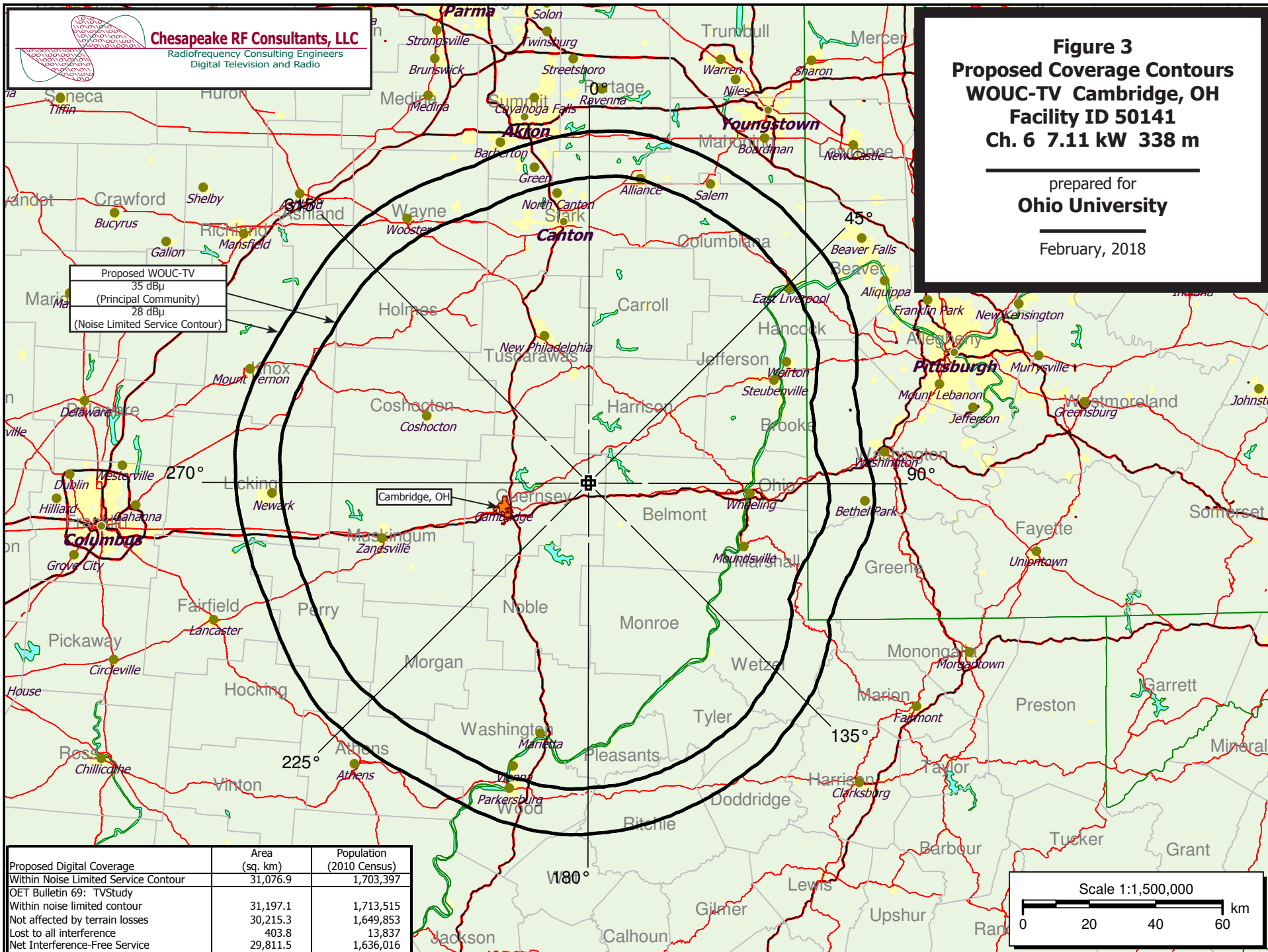


Table 1 WOUC-TV OET Bulletin 69 Interference Study
(page 1 of 5)



tvstudy v2.2.4 (Z2Qqz3)
Database: localhost, Study: WOUC-TV 7.11KW DCBR 20180222 (5516), Model: Longley-Rice
Start: 2018.02.28 11:54:02

Study created: 2018.02.28 11:54:01

Study build station data: LMS TV 2018-02-28 LMSTV

Proposal: WOUC-TV D6 DT APP CAMBRIDGE, OH
File number: WOUC-TV 7.11KW DCBR 20180222
Facility ID: 50141
Station data: User record
Record ID: 1771
Country: U.S.
Zone: I

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	WDTV	D5	DT	APP	WESTON, WV	BLANK0000036129	119.5 km
Yes	WDTV	D5	DT	LIC	WESTON, WV	BLCDT20090612AJX	119.5
Yes	WKBS-TV	D6	DT	CP	ALTOONA, PA	BLANK0000034187	247.0
Yes	WKBS-TV	D6	DT	BL	ALTOONA, PA	DTVBL13929	247.0

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D6
Latitude: 40 5 32.00 N (NAD83)
Longitude: 81 17 18.00 W
Height AMSL: 655.2 m
HAAT: 337.8 m
Peak ERP: 7.11 kW
Antenna: DCBR-C4-1MBA 20180222. 0.0 deg
Elev Pattn: Generic

28.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	6.93 kW	346.4 m	105.6 km
45.0	3.30	340.9	98.7
90.0	0.832	321.5	86.6
135.0	2.24	296.7	93.0
180.0	6.97	337.5	105.4
225.0	5.93	362.4	104.7
270.0	6.93	360.5	106.1
315.0	5.93	336.4	103.9

ERP exceeds maximum

ERP: 7.11 kW ERP maximum: 7.11 kW

**Proposal is within coordination distance of Canadian border
Distance to Canadian border: 199.2 km

Distance to Mexican border: 2134.6 km

Conditions at FCC monitoring station: Laurel MD
Bearing: 103.6 degrees Distance: 396.0 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 278.0 degrees Distance: 2028.3 km

Study cell size: 2.00 km
Profile point spacing: 1.00 km

Table 1 WOUC-TV OET Bulletin 69 Interference Study
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Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Interference to BLANK0000036129 APP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance			
Desired:	WDTV	D5	DT	APP	WESTON, WV	BLANK0000036129				
Undesireds:	WOUC-TV	D6	DT	BL	CAMBRIDGE, OH	DTVBL50141	119.5 km			
	WOUC-TV	D6	DT	APP	CAMBRIDGE, OH	WOUC-TV 7.11KW DCBR 20	119.5			
	WMDE	D5	DT	LIC	DOVER, DE	BLANK0000001038	368.5			
	WNYB	D5	DT	CP	JAMESTOWN, NY	BLANK0000034892	356.3			
	WCYB-TV	D5	DT	LIC	BRISTOL, VA	BLCDT20100629AUD	352.7			
Service area		Terrain-limited			IX-free, before		IX-free, after		Percent New IX	
32573.5	958,681	30393.1		846,308	30023.7	834,720	29890.6	831,677	0.44	0.36
Undesired				Total IX		Unique IX, before		Unique IX, after		
WOUC-TV	D6	DT	BL	92.8	3,220	92.8	3,220			
WOUC-TV	D6	DT	APP	225.9	6,263			225.9	6,263	
WMDE	D5	DT	LIC	67.6	523	67.6	523	67.6	523	
WNYB	D5	DT	CP	104.7	6,696	104.7	6,696	104.7	6,696	
WCYB-TV	D5	DT	LIC	104.3	1,149	104.3	1,149	104.3	1,149	

Interference to BLANK0000036129 APP scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance		
Desired:	WDTV	D5	DT	APP	WESTON, WV	BLANK0000036129			
Undesireds:	WOUC-TV	D6	DT	BL	CAMBRIDGE, OH	DTVBL50141	119.5 km		
	WOUC-TV	D6	DT	APP	CAMBRIDGE, OH	WOUC-TV 7.11KW DCBR 20	119.5		
	WMDE	D5	DT	LIC	DOVER, DE	BLANK0000001038	368.5		
	WNYB	D5	DT	BL	JAMESTOWN, NY	DTVBL30303	356.3		
	WCYB-TV	D5	DT	LIC	BRISTOL, VA	BLCDT20100629AUD	352.7		
Service area		Terrain-limited			IX-free, before		IX-free, after	Percent New IX	
32573.5	958,681	30393.1	846,308		30124.4	841,416	29991.3	838,373	0.44 0.36
Undesired				Total IX		Unique IX, before		Unique IX, after	
WOUC-TV	D6	DT	BL	92.8	3,220	92.8	3,220		
WOUC-TV	D6	DT	APP	225.9	6,263		225.9	6,263	
WMDE	D5	DT	LIC	67.6	523	67.6	523		
WNYB	D5	DT	BL	4.0	0	4.0	0	4.0	0
WCYB-TV	D5	DT	LIC	104.3	1,149	104.3	1,149	104.3	1,149

Interference to BLCDT20090612AJX LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance	
Desired:	WDTV	D5	DT	LIC	WESTON, WV	BLCDT20090612AJX		
Undesireds:	WOUC-TV	D6	DT	BL	CAMBRIDGE, OH	DTVBL50141	119.5 km	
	WOUC-TV	D6	DT	APP	CAMBRIDGE, OH	WOUC-TV 7.11KW DCBR 20	119.5	
	WMDE	D5	DT	LIC	DOVER, DE	BLANK0000001038	368.5	
	WNYB	D5	DT	CP	JAMESTOWN, NY	BLANK0000034892	356.3	
	WCYB-TV	D5	DT	LIC	BRISTOL, VA	BLCDT20100629AUD	352.7	
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX	
32689.9	962,532	30521.7	850,394	30168.4	841,849	30019.2	838,474	0.49 0.40
Undesired				Total IX	Unique IX, before		Unique IX, after	
WOUC-TV D6 DT BL	84.7			2,982	84.7	2,982		
WOUC-TV D6 DT APP	233.9			6,357			233.9	6,357
WMDE D5 DT LIC	67.6			446	67.6	446	67.6	446
WNYB D5 DT CP	100.7			3,919	100.7	3,919	100.7	3,919
WCYB-TV D5 DT LIC	100.3			1,198	100.3	1,198	100.3	1,198

Table 1 WOUC-TV OET Bulletin 69 Interference Study
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Interference to BLCDT20090612AJX LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance				
Desired:	WDTV	D5	DT	LIC	WESTON, WV	BLCDT20090612AJX					
Undesireds:	WOUC-TV	D6	DT	BL	CAMBRIDGE, OH	DTVBL50141	119.5 km				
	WOUC-TV	D6	DT	APP	CAMBRIDGE, OH	WOUC-TV 7.11KW DCBR 20	119.5				
	WMDE	D5	DT	LIC	DOVER, DE	BLANK0000001038	368.5				
	WCYB-TV	D5	DT	LIC	BRISTOL, VA	BLCDT20100629AUD	352.7				
Service area		Terrain-limited			IX-free, before		IX-free, after	Percent New IX			
32689.9	962,532	30521.7	850,394		30269.1	845,768	30120.0	842,393	0.49	0.40	
Undesired				Total IX		Unique IX, before		Unique IX, after			
WOUC-TV	D6	DT	BL	84.7		2,982	84.7	2,982			
WOUC-TV	D6	DT	APP	233.9		6,357	233.9		6,357		
WMDE	D5	DT	LIC	67.6		446	67.6	446			
WCYB-TV	D5	DT	LIC	100.3		1,198	100.3	1,198			

Interference to BLANK0000034187 CP scenario 1

Desired:	Call WKBS-TV	Chan D6	Svc DT	Status CP	City, State ALTOONA, PA	File Number BLANK0000034187	Distance				
Undesireds:	WOUC-TV	D6	DT	BL	CAMBRIDGE, OH	DTVBL50141	247.0 km				
	WOUC-TV	D6	DT	APP	CAMBRIDGE, OH	WOUC-TV 7.11KW DCBR 20	247.0				
	WPVI-TV	D6	DT	APP	PHILADELPHIA, PA	BLANK0000035671	277.4				
Service area		Terrain-limited			IX-free, before	IX-free, after	Percent New IX				
28480.4	1,082,894	25674.5	937,847		24829.8	906,734	24693.1	904,291	0.55	0.27	
Undesired				Total IX		Unique IX, before		Unique IX, after			
WOUC-TV	D6	DT	BL	76.4		1,333		76.4		1,333	
WOUC-TV	D6	DT	APP	213.0		3,776		213.0		3,776	
WPVI-TV	D6	DT	APP	768.3		29,780		768.3		29,780	

Interference to BLANK0000034187 CP scenario 2

Desired:	Call WKBS-TV	Chan D6	Svc DT	Status CP	City, State ALTOONA, PA	File Number BLANK0000034187	Distance			
Undesireds:	WOUC-TV	D6	DT	BL	CAMBRIDGE, OH	DTVBL50141	247.0 km			
	WOUC-TV	D6	DT	APP	CAMBRIDGE, OH	WOUC-TV 7.11KW DCBR 20	247.0			
	WPVI-TV	D6	DT	LIC	PHILADELPHIA, PA	BLCDT20111019ACJ	277.3			
Service area		Terrain-limited			IX-free, before		IX-free, after	Percent New IX		
28480.4	1,082,894	25674.5	937,847		24970.4	907,716	24833.8	905,273	0.55	0.27
Undesired				Total IX		Unique IX, before		Unique IX, after		
WOUC-TV	D6	DT	BL	76.4	1,333	76.4	1,333			
WOUC-TV	D6	DT	APP	213.0	3,776			213.0	3,776	
WPVI-TV	D6	DT	LIC	627.6	28,798	627.6	28,798	627.6	28,798	

Interference to DTVBL13929 BL scenario 1

Desired:	Call WKBS-TV	Chan D6	Svc DT	Status BL	City, State ALTOONA, PA	File Number DTVBL13929	Distance				
Undesireds:	WOUC-TV	D6	DT	BL	CAMBRIDGE, OH	DTVBL50141	247.0 km				
	WOUC-TV	D6	DT	APP	CAMBRIDGE, OH	WOUC-TV 7.11KW DCBR 20	247.0				
	WPVI-TV	D6	DT	APP	PHILADELPHIA, PA	BLANK0000035671	277.4				
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX			
21029.2	831,001	19236.7		765,035		18782.7	759,027	18730.6	757,986	0.28	0.14
Undesired				Total IX		Unique IX, before		Unique IX, after			
WOUC-TV	D6	DT	BL	24.1		317		24.1		317	
WOUC-TV	D6	DT	APP	80.3		1,375		76.2		1,358	
WPVI-TV	D6	DT	APP	429.9		5,691		429.9		5,691	
				429.9		5,691		425.8		5,674	

Table 1 WOUC-TV OET Bulletin 69 Interference Study
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Interference to DTVBL13929 BL scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WKBS-TV	D6	DT	BL	ALTOONA, PA	DTVBL13929	
Undesireds:	WOUC-TV	D6	DT	BL	CAMBRIDGE, OH	DTVBL50141	247.0 km
	WOUC-TV	D6	DT	APP	CAMBRIDGE, OH	WOUC-TV 7.11KW DCBR 20	247.0
	WPVI-TV	D6	DT	LIC	PHILADELPHIA, PA	BLCDT20111019ACJ	277.3
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
21029.2	831,001	19236.7	765,035	18927.4	761,721	18875.2 760,680	0.28 0.14
Undesired				Total IX	Unique IX, before	Unique IX, after	
WOUC-TV D6 DT BL				24.1 317	24.1 317		
WOUC-TV D6 DT APP				80.3 1,375		76.2 1,358	
WPVI-TV D6 DT LIC				285.2 2,997	285.2 2,997	281.2 2,980	

Interference to proposal scenario 1

**MX: 0.84% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WOUC-TV	D6	DT	APP	CAMBRIDGE, OH	WOUC-TV 7.11KW DCBR 20	
Undesireds:	WDTV	D5	DT	APP	WESTON, WV	BLANK0000036129	119.5 km
	WKBS-TV	D6	DT	CP	ALTOONA, PA	BLANK0000034187	247.0
Service area		Terrain-limited		IX-free		Percent IX	
31197.1	1,713,515	30215.3	1,649,853	29811.5	1,636,016	1.34 0.84	
Undesired				Total IX	Unique IX	Prcnt Unique IX	
WDTV D5 DT APP				99.4 519	95.4 506	0.32 0.03	
WKBS-TV D6 DT CP				308.4 13,331	304.4 13,318	1.01 0.81	

Interference to proposal scenario 2

0.84% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WOUC-TV	D6	DT	APP	CAMBRIDGE, OH	WOUC-TV 7.11KW DCBR 20	
Undesireds:	WDTV	D5	DT	LIC	WESTON, WV	BLCDT20090612AJX	119.5 km
	WKBS-TV	D6	DT	CP	ALTOONA, PA	BLANK0000034187	247.0
Service area		Terrain-limited		IX-free		Percent IX	
31197.1	1,713,515	30215.3	1,649,853	29811.4	1,635,940	1.34 0.84	
Undesired				Total IX	Unique IX	Prcnt Unique IX	
WDTV D5 DT LIC				99.5 595	95.5 582	0.32 0.04	
WKBS-TV D6 DT CP				308.4 13,331	304.4 13,318	1.01 0.81	

Interference to proposal scenario 3

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WOUC-TV	D6	DT	APP	CAMBRIDGE, OH	WOUC-TV 7.11KW DCBR 20	
Undesireds:	WDTV	D5	DT	APP	WESTON, WV	BLANK0000036129	119.5 km
	WKBS-TV	D6	DT	BL	ALTOONA, PA	DTVBL13929	247.0
Service area		Terrain-limited		IX-free		Percent IX	
31197.1	1,713,515	30215.3	1,649,853	30063.7	1,647,786	0.50 0.13	
Undesired				Total IX	Unique IX	Prcnt Unique IX	
WDTV D5 DT APP				99.4 519	99.4 519	0.33 0.03	
WKBS-TV D6 DT BL				52.2 1,548	52.2 1,548	0.17 0.09	

Table 1 WOUC-TV OET Bulletin 69 Interference Study
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Interference to proposal scenario 4

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WOUC-TV	D6	DT	APP	CAMBRIDGE, OH	WOUC-TV 7.11KW DCBR 20	
Undesireds:	WDTV	D5	DT	LIC	WESTON, WV	BLCDT20090612AJX	119.5 km
	WKBS-TV	D6	DT	BL	ALTOONA, PA	DTVBL13929	247.0
	Service area		Terrain-limited		IX-free		Percent IX
	31197.1	1,713,515	30215.3	1,649,853	30063.6	1,647,710	0.50 0.13
Undesired			Total IX		Unique IX		Prct Unique IX
WDTV D5 DT LIC			99.5	595	99.5	595	0.33 0.04
WKBS-TV D6 DT BL			52.2	1,548	52.2	1,548	0.17 0.09

**Channel and
Facility
Information**

Section	Question	Response
Proposed Community of License	Facility ID	50141
	State	Ohio
	City	CAMBRIDGE
	DTV Channel	6
Facility Type	Facility Type	Noncommercial Educational
	Station Type	Main
Zone	Zone	1

**Antenna Location
Data**

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1008520
Coordinates (NAD83)	Latitude	40° 05' 32.0" N+
	Longitude	081° 17' 18.0" W-
	Structure Type	TOWER-A free standing or guyed struct
	Overall Structure Height	363.9 meters
	Support Structure Height	356.7 meters
	Ground Elevation (AMSL)	341.3 meters
Antenna Data	Height of Radiation Center Above Ground Level	313.9 meters
	Height of Radiation Center Above Average Terrain	337.8 meters
	Height of Radiation Center Above Mean Sea Level	655.2 meters
	Effective Radiated Power	7.11 kW

Antenna Technical Data

Section	Question	Response
Antenna Type	Antenna Type	Directional Custom
	Do you have an Antenna ID?	No
	Antenna ID	
Antenna Manufacturer and Model	Manufacturer:	DIE
	Model	DCBR-C4-1MBA/4L-1
	Rotation	0 degrees
	Electrical Beam Tilt	Not Applicable
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Elliptical
DTV and DTS: Elevation Pattern	Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?	No
	Uploaded file for elevation antenna (or radiation) pattern data	

Directional Antenna Relative Field Values (Pre-rotated Pattern)

Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)
0	0.987	90	0.342	180	0.990	270	0.987
10	0.990	100	0.342	190	0.987	280	0.987
20	0.914	110	0.286	200	0.888	290	0.888
30	0.806	120	0.311	210	0.810	300	0.810
40	0.724	130	0.483	220	0.880	310	0.880
50	0.639	140	0.639	230	0.946	320	0.946
60	0.483	150	0.724	240	0.880	330	0.880
70	0.311	160	0.806	250	0.810	340	0.810
80	0.286	170	0.914	260	0.888	350	0.888

Additional Azimuths

Degree	V _A
95	0.350
5	1.000
275	1.000
185	1.000

**Construction
Permit
Certifications**

Section	Question	Response
Post-Incentive Auction Expedited Processing	It will operate on the DTV channel for this station as established in the post-incentive auction channel reassignment public notice.	Yes
	It will operate post-incentive auction facilities that do not expand the noise-limited service contour in any direction beyond that established by the post-incentive auction channel reassignment public notice.	No
	It will operate post-incentive auction facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the post-incentive auction channel reassignment public notice.	Yes
	The antenna structure to be used by this facility has been registered by the Commission and will not require re-registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely affect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.	Yes
Environmental Effect	Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? (See Section 1.1306 of 47 C.F.R.)	No
Broadcast Facility	The proposed facility complies with the applicable engineering standards and assignment requirements of 47 C. F.R. Sections 73.616, 73.622(i), 73.623(e), 73.625, 73.1030, and 73.1125.	Yes