



**STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN APPLICATION FOR
POST-TRANSITION CONSTRUCTION PERMIT
WSYX - COLUMBUS, OHIO
DTV - CH. 48 - 1000 kW - 286.0 m HAAT**

Prepared for: WSYX LICENSEE, INC.

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a 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 WSYX LICENSEE, INC., licensee of WSYX, channel 13, Columbus, Ohio, to prepare this statement, FCC Form 301, Sections III and III-D, and the associated exhibits in support of an application for construction permit in accordance with the Report and Order in MB Docket No. 09-124, RM-11547, DA 09-2582, to substitute DTV channel 48 for DTV channel 13 for post-transition use. It is proposed herein to install a new channel 48 antenna, in the position previously occupied by WSYX's channel 6 antenna, for post-transition digital operation.

PROPOSED OMNI-DIRECTIONAL ANTENNA

The applicant proposes to install a Dielectric model TFU-30GTH/VP-R O6 elliptically polarized omni-directional transmitting antenna with its center of radiation located at a height above ground of 305 meters, and a height above average terrain of 286 meters.

The proposed antenna shall employ an electrical beam tilt of 0.75 degrees below the horizontal plane. A vertical plan antenna sketch is provided as Exhibit 1. The antenna manufacturer's vertical plane radiation pattern, illustrating the antenna's radiation field characteristics above and below the horizontal plane, due to electrical beam tilt, is shown in Exhibits 2 and 3, and is tabulated in Exhibit 4. The horizontal plane azimuth pattern of the vertically polarized component is shown in Exhibit 5 and tabulated in Exhibit 6. The ERP of the vertically polarized signal component is 600 kW.

PREDICTED COVERAGE CONTOURS

The predicted coverage contours were calculated in accordance with the method described in Section 73.684 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 National Geophysical Data Center Thirty Second Point Database (TPG-0050) as prescribed in the FCC Rules. The antenna site elevation and coordinates were determined from FCC antenna registration data. Exhibit 7 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, Columbus, Ohio.

ALLOCATION CONSIDERATIONS

A study was performed, using the Commission's application processing software tv_process to determine if the instant application for construction permit for WSYX 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.

Additionally, the channel 48 allotment, for WSYX in Columbus, Ohio, has been coordinated with, and is deemed acceptable to, Industry Canada.

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 only one predicted contour overlap, with co-channel Class A LPTV station WMNT-CA, Toledo, Ohio, BLTTL-19990607JB. However, the Longley-Rice section of the study results determined that the "Proposal causes no interference". The instant application is, therefore, considered to be in compliance with Section 73.616(f). No Class A station is detrimentally affected by the instant proposal.

BLANKETING AND INTERMODULATION INTERFERENCE

A number of broadcast and non-broadcast facilities are co-located with, as well as located within 10 km of the WSYX antenna site. A single broadcast tower, which is used

by two non-directional AM radio stations, is located 0.53 km from the WSYX site. WRFD is a non-directional daytime only station which operates on 880 kHz with a power of 23 kW. Co-located WYTS is a non-directional unlimited time station which operates on 1230 kHz with a power of 1 kW. Since the instant application proposes no significant alteration, other than removing an existing television broadcast antenna and replacing it with another TV antenna similar in shape and size, will be made. Consequently, no measurable effect on either AM station is predicted, or expected. The applicant recognizes 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. 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 (mW/cm^2) for an "uncontrolled" environment, and is 1.0 milliwatts per centimeter squared (mW/cm^2) for a "controlled" environment. The MPE level for broadcast facilities that operate on a frequency between 300 MHz and 1500 MHz, primarily UHF TV stations, is determined for an "uncontrolled" environment by dividing the operating frequency in MHz by 1500, and is similarly determined for a "controlled" environment by dividing the operating frequency in MHz by 300.

The predicted emissions of WSYX operating on channel 48 must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For WSYX, which will operate on television Channel 48 (674-680 MHz), the MPE is 0.451 milliwatts per centimeter squared (mW/cm^2) in an "uncontrolled" environment and 2.26 mW/cm^2 in a "controlled" environment. The proposed WSYX facility will operate with a maximum ERP of 1000 kW from an elliptically polarized omni-directional transmitting antenna with a centerline height of 305 meters above ground level (AGL). Considering a very conservative vertical plane relative field factor of 0.3, the WSYX facility is predicted to produce a power density at two meters above ground level of 0.06548 mW/cm^2 , which

is 14.51% of the FCC guideline value for an “uncontrolled” environment, and 2.90% of the FCC’s guideline value for "controlled" environments (see Appendix A). There are three FM stations, one FM auxiliary facility, one FM translator station and one other DTV station 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 post-transition stations within relevant proximity is 63.27% of the limit for “uncontrolled” environments, and 12.65% of the limit for “controlled” environments.

The actual cumulative radiation total will be less, because only one of WOSU-FM’s facilities will be active at any time. WOSU-FM holds a construction permit to relocate both its main and auxiliary facilities to another site, and will be leaving the WSYX site in the near future. At that time the total cumulative radiation will be reduced to 35.83% of the limit for “uncontrolled” environments, and 7.17% of the limit for “controlled” environments.

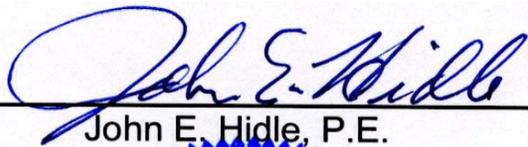
OCCUPATIONAL SAFETY

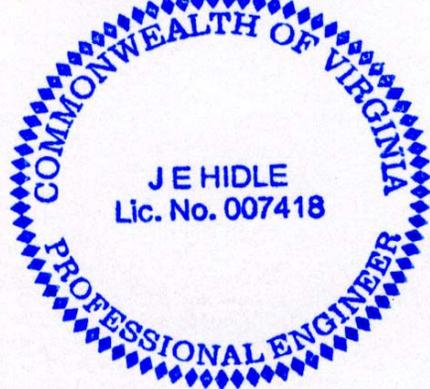
The licensee of WSYX is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WSYX antenna, and is committed to the reduction of power or the cessation of broadcast operations during any scheduled periods of maintenance of WSYX’s transmission systems, when necessary, to ensure the protection of maintenance personnel.

SUMMARY

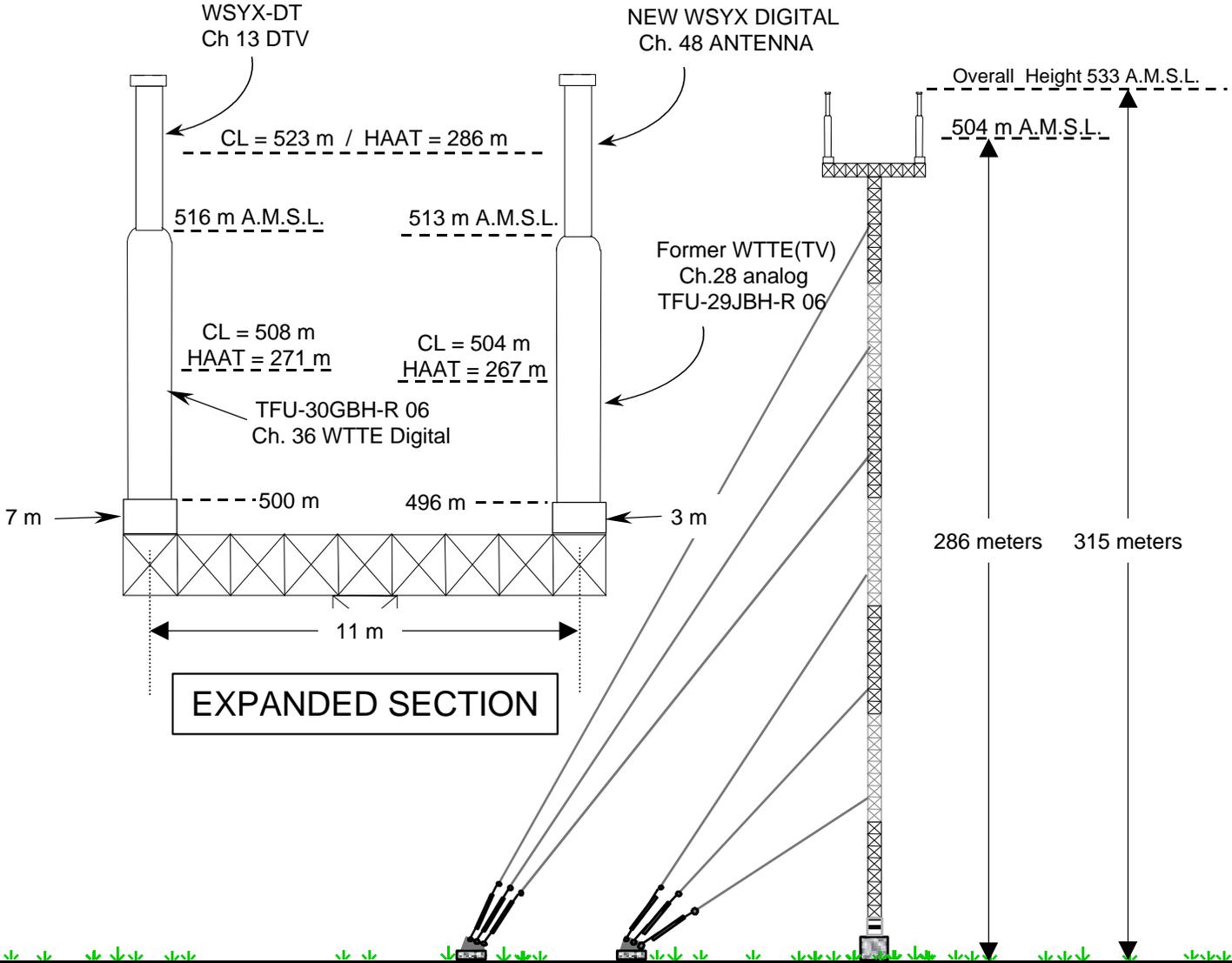
It is submitted that the instant application for construction permit to substitute DTV channel 48 for DTV channel 13 in Columbus, Ohio, as described herein, complies with the requirements of the REPORT AND ORDER in MB Docket No. 09-46, and with the Rules, Regulations and relevant Policies of the Federal 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: December 22, 2009


John E. Hidle, P.E.



COORDINATES NAD-27
 NORTH LATITUDE: 39° 56' 14"
 WEST LONGITUDE: 83° 01' 16"



EXPANDED SECTION

GROUND ELEVATION = 218 meters A.M.S.L. / AVERAGE TERRAIN = 237 meters A.M.S.L. / HAAT = 286 meters

VERTICAL PLAN ANTENNA SKETCH
 DTV STATION WSYX - COLUMBUS, OHIO
 Ch. 48 - 1000 kW - 286 m HAAT
 DECEMBER, 2009

CARL T. JONES
 CORPORATION

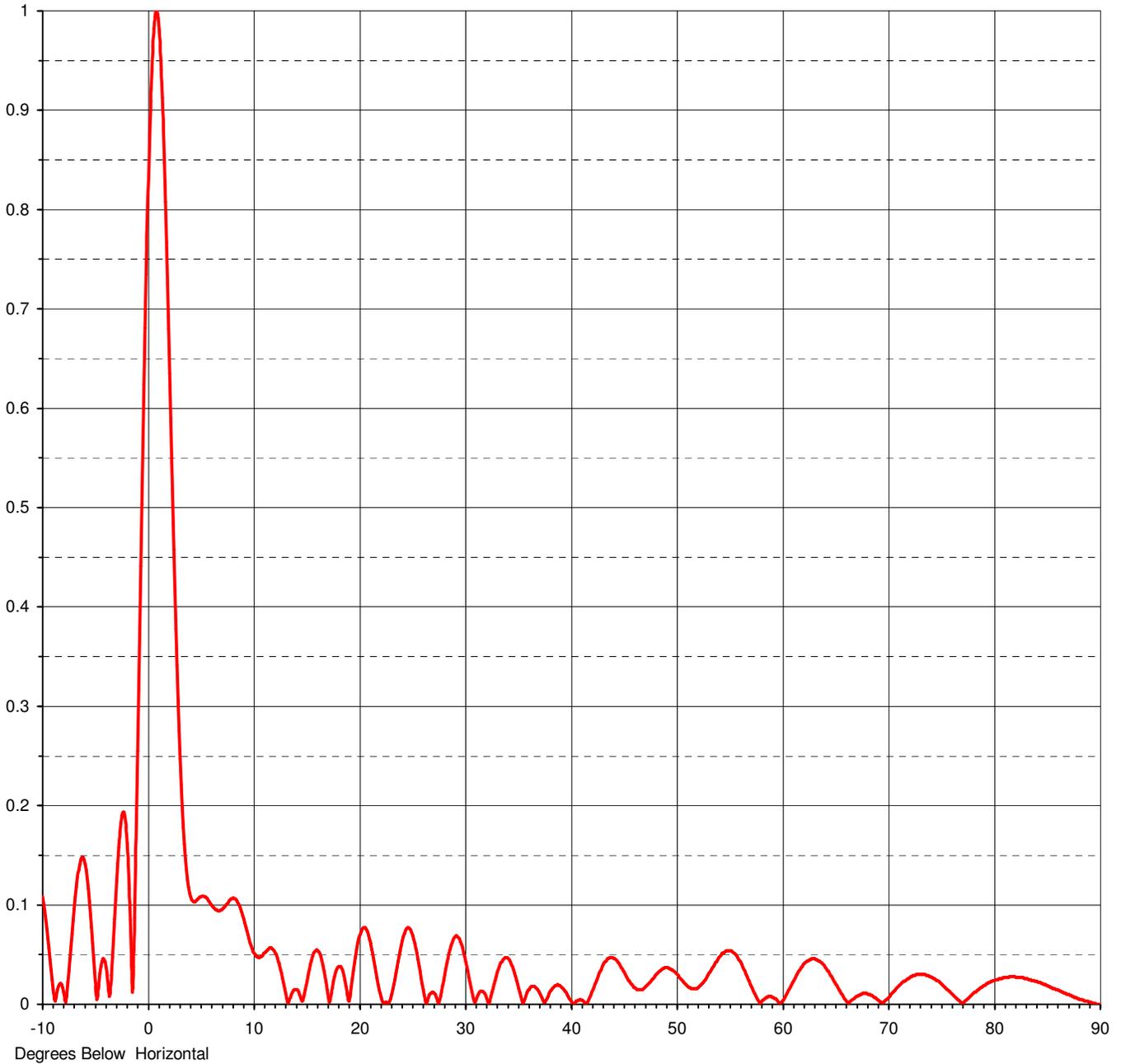
NOTE : NOT DRAWN TO SCALE



Proposal Number **C-03671** Exhibit 2
Date **3-Aug-09**
Call Letters **WSYX** Channel **48**
Location **Columbus, OH**
Customer **Sinclair**
Antenna Type **TFU-30GTH/VP-R O6**

ELEVATION PATTERN

RMS Gain at Main Lobe	27.00 (14.31 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	18.70 (12.72 dB)	Frequency	677.00 MHz
Calculated / Measured	Calculated	Drawing #	30G270075-90

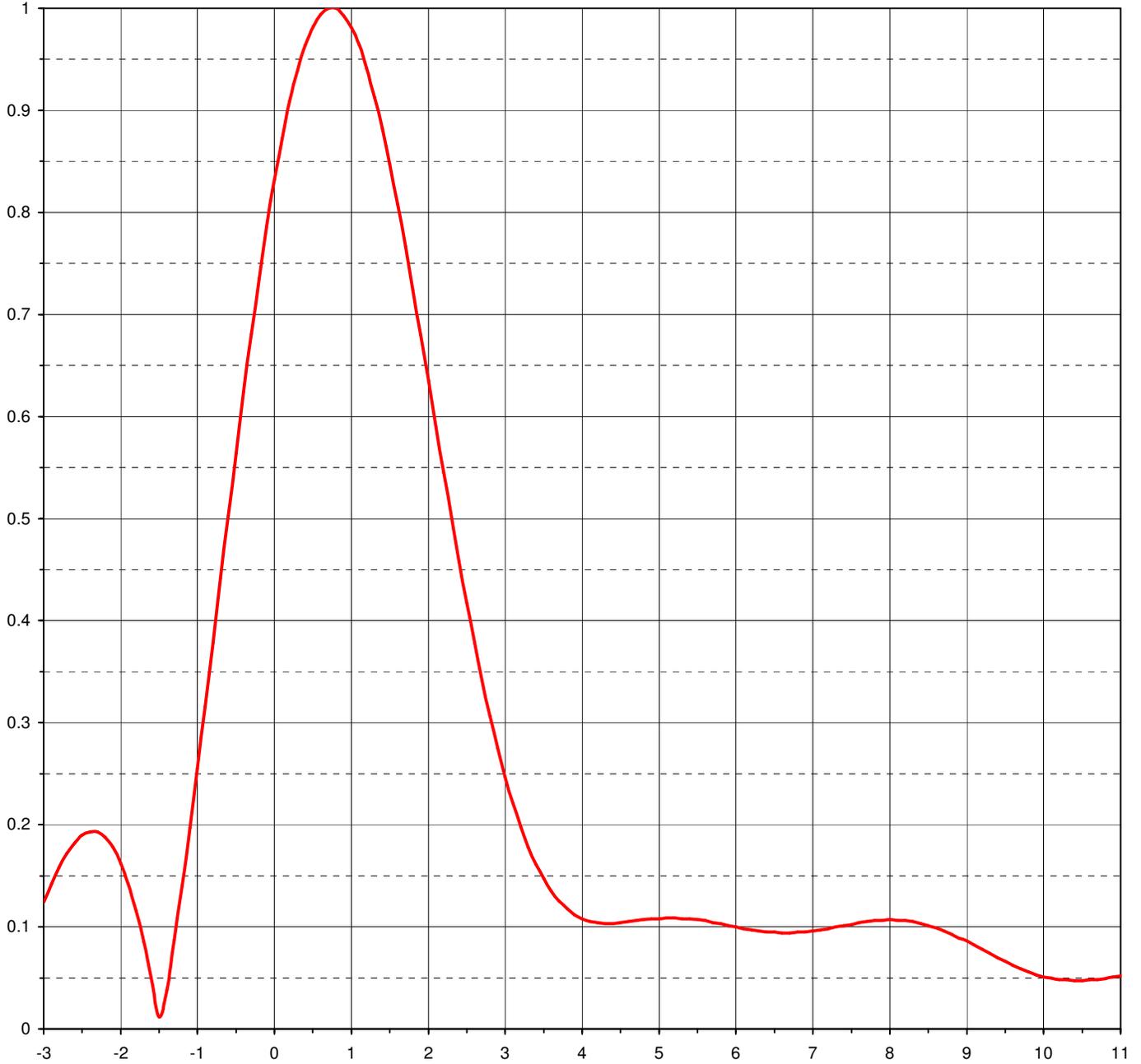




Proposal Number **C-03671** Exhibit 3
Date **3-Aug-09**
Call Letters **WSYX** Channel **48**
Location **Columbus, OH**
Customer **Sinclair**
Antenna Type **TFU-30GTH/VP-R 06**

ELEVATION PATTERN

RMS Gain at Main Lobe	27.00 (14.31 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	18.70 (12.72 dB)	Frequency	677.00 MHz
Calculated / Measured	Calculated	Drawing #	30G270075



Degrees Below Horizontal



Proposal Number **C-03671** **Exhibit 4**
 Date **3-Aug-09**
 Call Letters **WSYX** Channel **48**
 Location **Columbus, OH**
 Customer **Sinclair**
 Antenna Type **TFU-30GTH/VP-R O6**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **30G270075-90**

Angle	Field										
-10.0	0.108	2.4	0.458	10.6	0.047	30.5	0.022	51.0	0.019	71.5	0.023
-9.5	0.066	2.6	0.378	10.8	0.048	31.0	0.002	51.5	0.016	72.0	0.027
-9.0	0.015	2.8	0.307	11.0	0.051	31.5	0.013	52.0	0.016	72.5	0.029
-8.5	0.018	3.0	0.247	11.5	0.056	32.0	0.009	52.5	0.021	73.0	0.030
-8.0	0.012	3.2	0.198	12.0	0.054	32.5	0.008	53.0	0.029	73.5	0.029
-7.5	0.033	3.4	0.161	12.5	0.040	33.0	0.028	53.5	0.038	74.0	0.027
-7.0	0.096	3.6	0.135	13.0	0.016	33.5	0.043	54.0	0.047	74.5	0.024
-6.5	0.141	3.8	0.118	13.5	0.007	34.0	0.047	54.5	0.052	75.0	0.020
-6.0	0.141	4.0	0.108	14.0	0.015	34.5	0.038	55.0	0.054	75.5	0.015
-5.5	0.091	4.2	0.104	14.5	0.006	35.0	0.020	55.5	0.051	76.0	0.010
-5.0	0.017	4.4	0.103	15.0	0.019	35.5	0.001	56.0	0.044	76.5	0.005
-4.5	0.038	4.6	0.105	15.5	0.044	36.0	0.014	56.5	0.033	77.0	0.001
-4.0	0.037	4.8	0.107	16.0	0.055	36.5	0.018	57.0	0.020	77.5	0.006
-3.5	0.029	5.0	0.108	16.5	0.044	37.0	0.013	57.5	0.009	78.0	0.011
-3.0	0.124	5.2	0.109	17.0	0.015	37.5	0.002	58.0	0.001	78.5	0.015
-2.8	0.158	5.4	0.108	17.5	0.017	38.0	0.011	58.5	0.007	79.0	0.019
-2.6	0.182	5.6	0.106	18.0	0.037	38.5	0.018	59.0	0.008	79.5	0.022
-2.4	0.193	5.8	0.103	18.5	0.033	39.0	0.019	59.5	0.005	80.0	0.024
-2.2	0.188	6.0	0.100	19.0	0.005	39.5	0.013	60.0	0.002	80.5	0.026
-2.0	0.162	6.2	0.097	19.5	0.034	40.0	0.005	60.5	0.012	81.0	0.027
-1.8	0.116	6.4	0.095	20.0	0.066	40.5	0.003	61.0	0.022	81.5	0.028
-1.6	0.050	6.6	0.094	20.5	0.077	41.0	0.004	61.5	0.032	82.0	0.027
-1.4	0.038	6.8	0.095	21.0	0.065	41.5	0.001	62.0	0.040	82.5	0.027
-1.2	0.140	7.0	0.096	21.5	0.038	42.0	0.012	62.5	0.044	83.0	0.026
-1.0	0.255	7.2	0.098	22.0	0.011	42.5	0.025	63.0	0.046	83.5	0.024
-0.8	0.378	7.4	0.101	22.5	0.002	43.0	0.038	63.5	0.044	84.0	0.023
-0.6	0.503	7.6	0.104	23.0	0.006	43.5	0.046	64.0	0.039	84.5	0.021
-0.4	0.624	7.8	0.106	23.5	0.031	44.0	0.047	64.5	0.029	85.0	0.019
-0.2	0.735	8.0	0.107	24.0	0.059	44.5	0.042	65.0	0.020	85.5	0.016
0.0	0.832	8.2	0.106	24.5	0.076	45.0	0.034	65.5	0.011	86.0	0.014
0.2	0.909	8.4	0.103	25.0	0.072	45.5	0.024	66.0	0.003	86.5	0.012
0.4	0.964	8.6	0.099	25.5	0.051	46.0	0.017	66.5	0.004	87.0	0.010
0.6	0.994	8.8	0.093	26.0	0.020	46.5	0.015	67.0	0.008	87.5	0.007
0.8	1.000	9.0	0.086	26.5	0.004	47.0	0.017	67.5	0.011	88.0	0.005
1.0	0.981	9.2	0.078	27.0	0.012	47.5	0.022	68.0	0.010	88.5	0.003
1.2	0.941	9.4	0.070	27.5	0.001	48.0	0.029	68.5	0.008	89.0	0.002
1.4	0.882	9.6	0.062	28.0	0.024	48.5	0.034	69.0	0.004	89.5	0.001
1.6	0.808	9.8	0.059	28.5	0.051	49.0	0.037	69.5	0.002	90.0	0.000
1.8	0.724	10.0	0.053	29.0	0.067	49.5	0.035	70.0	0.007		
2.0	0.635	10.2	0.050	29.5	0.066	50.0	0.031	70.5	0.013		
2.2	0.545	10.4	0.048	30.0	0.048	50.5	0.025	71.0	0.019		

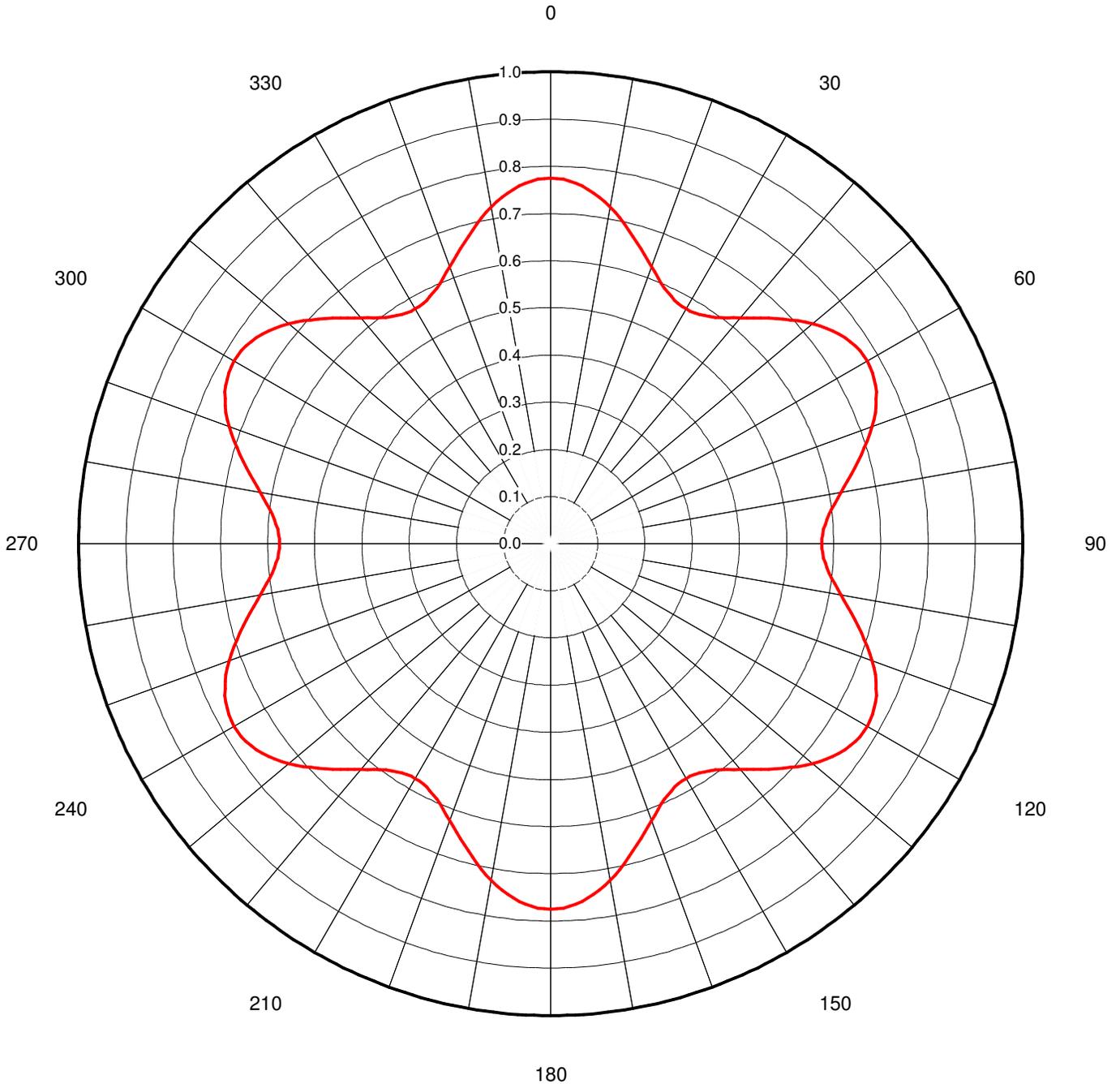
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Proposal Number	C-03671	Exhibit 5
Date	3-Aug-09	
Call Letters	WSYX	Channel 48
Location	Columbus, OH	
Customer	Sinclair	
Antenna Type	TFU-30GTH/VP-R O6	

AZIMUTH PATTERN/VERTICAL POLARIZATION

Gain **1.30** (1.14 dB)
Calculated / Measured **Calculated**

Frequency **677.00 MHz**
Drawing # **TFU-O6V**





Proposal Number **C-03671**
 Date **3-Aug-09**
 Call Letters **WSYX** Channel **48**
 Location **Columbus, OH**
 Customer **Sinclair**
 Antenna Type **TFU-30GTH/VP-R 06**

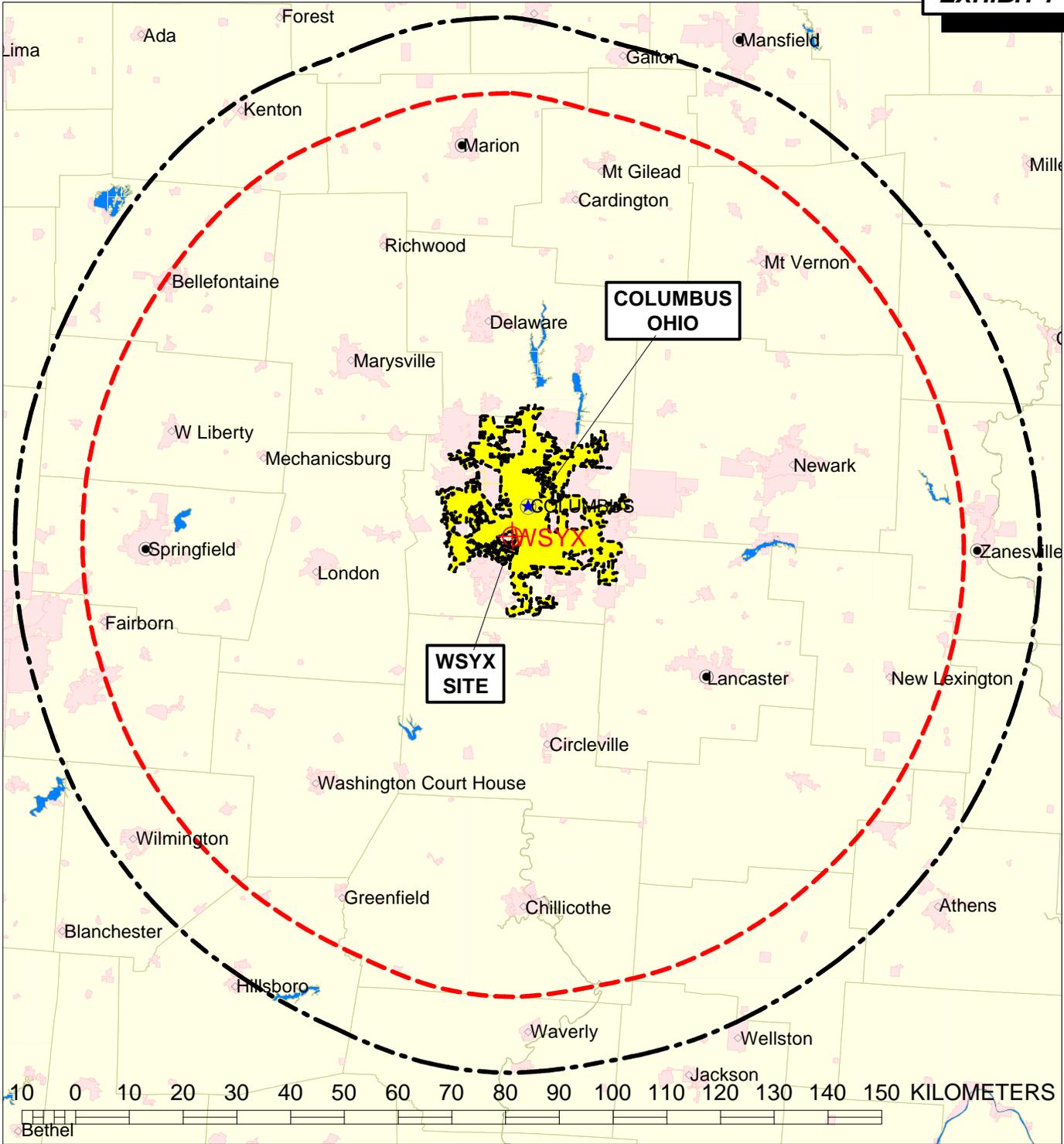
Exhibit 6

TABULATION OF AZIMUTH PATTERN/VERTICAL POLARIZATION

Azimuth Pattern Drawing #: **TFU-06V**

Angle	Field														
0	0.775	45	0.674	90	0.574	135	0.674	180	0.775	225	0.674	270	0.574	315	0.674
1	0.774	46	0.685	91	0.575	136	0.664	181	0.774	226	0.685	271	0.575	316	0.664
2	0.772	47	0.695	92	0.576	137	0.654	182	0.772	227	0.695	272	0.576	317	0.654
3	0.770	48	0.705	93	0.579	138	0.643	183	0.770	228	0.705	273	0.579	318	0.643
4	0.766	49	0.715	94	0.583	139	0.634	184	0.766	229	0.715	274	0.583	319	0.634
5	0.761	50	0.724	95	0.588	140	0.624	185	0.761	230	0.724	275	0.588	320	0.624
6	0.755	51	0.733	96	0.593	141	0.616	186	0.755	231	0.733	276	0.593	321	0.616
7	0.749	52	0.741	97	0.600	142	0.607	187	0.749	232	0.741	277	0.600	322	0.607
8	0.741	53	0.749	98	0.607	143	0.600	188	0.741	233	0.749	278	0.607	323	0.600
9	0.733	54	0.755	99	0.616	144	0.593	189	0.733	234	0.755	279	0.616	324	0.593
10	0.724	55	0.761	100	0.624	145	0.588	190	0.724	235	0.761	280	0.624	325	0.588
11	0.715	56	0.766	101	0.634	146	0.583	191	0.715	236	0.766	281	0.634	326	0.583
12	0.705	57	0.770	102	0.643	147	0.579	192	0.705	237	0.770	282	0.643	327	0.579
13	0.695	58	0.772	103	0.654	148	0.576	193	0.695	238	0.772	283	0.654	328	0.576
14	0.685	59	0.774	104	0.664	149	0.575	194	0.685	239	0.774	284	0.664	329	0.575
15	0.674	60	0.775	105	0.674	150	0.574	195	0.674	240	0.775	285	0.674	330	0.574
16	0.664	61	0.774	106	0.685	151	0.575	196	0.664	241	0.774	286	0.685	331	0.575
17	0.654	62	0.772	107	0.695	152	0.576	197	0.654	242	0.772	287	0.695	332	0.576
18	0.643	63	0.770	108	0.705	153	0.579	198	0.643	243	0.770	288	0.705	333	0.579
19	0.634	64	0.766	109	0.715	154	0.583	199	0.634	244	0.766	289	0.715	334	0.583
20	0.624	65	0.761	110	0.724	155	0.588	200	0.624	245	0.761	290	0.724	335	0.588
21	0.616	66	0.755	111	0.733	156	0.593	201	0.616	246	0.755	291	0.733	336	0.593
22	0.607	67	0.749	112	0.741	157	0.600	202	0.607	247	0.749	292	0.741	337	0.600
23	0.600	68	0.741	113	0.749	158	0.607	203	0.600	248	0.741	293	0.749	338	0.607
24	0.593	69	0.733	114	0.755	159	0.616	204	0.593	249	0.733	294	0.755	339	0.616
25	0.588	70	0.724	115	0.761	160	0.624	205	0.588	250	0.724	295	0.761	340	0.624
26	0.583	71	0.715	116	0.766	161	0.634	206	0.583	251	0.715	296	0.766	341	0.634
27	0.579	72	0.705	117	0.770	162	0.643	207	0.579	252	0.705	297	0.770	342	0.643
28	0.576	73	0.695	118	0.772	163	0.654	208	0.576	253	0.695	298	0.772	343	0.654
29	0.575	74	0.685	119	0.774	164	0.664	209	0.575	254	0.685	299	0.774	344	0.664
30	0.574	75	0.674	120	0.775	165	0.674	210	0.574	255	0.674	300	0.775	345	0.674
31	0.575	76	0.664	121	0.774	166	0.685	211	0.575	256	0.664	301	0.774	346	0.685
32	0.576	77	0.654	122	0.772	167	0.695	212	0.576	257	0.654	302	0.772	347	0.695
33	0.579	78	0.643	123	0.770	168	0.705	213	0.579	258	0.643	303	0.770	348	0.705
34	0.583	79	0.634	124	0.766	169	0.715	214	0.583	259	0.634	304	0.766	349	0.715
35	0.588	80	0.624	125	0.761	170	0.724	215	0.588	260	0.624	305	0.761	350	0.724
36	0.593	81	0.616	126	0.755	171	0.733	216	0.593	261	0.616	306	0.755	351	0.733
37	0.600	82	0.607	127	0.749	172	0.741	217	0.600	262	0.607	307	0.749	352	0.741
38	0.607	83	0.600	128	0.741	173	0.749	218	0.607	263	0.600	308	0.741	353	0.749
39	0.616	84	0.593	129	0.733	174	0.755	219	0.616	264	0.593	309	0.733	354	0.755
40	0.624	85	0.588	130	0.724	175	0.761	220	0.624	265	0.588	310	0.724	355	0.761
41	0.634	86	0.583	131	0.715	176	0.766	221	0.634	266	0.583	311	0.715	356	0.766
42	0.643	87	0.579	132	0.705	177	0.770	222	0.643	267	0.579	312	0.705	357	0.770
43	0.654	88	0.576	133	0.695	178	0.772	223	0.654	268	0.576	313	0.695	358	0.772
44	0.664	89	0.575	134	0.685	179	0.774	224	0.664	269	0.575	314	0.685	359	0.774

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PREDICTED COVERAGE CONTOURS

WSYX, COLUMBUS, OHIO
Ch. 48 - 1000 kW - 286 m HAAT

PREDICTED 48 dBu F(50,90)
PRINCIPAL COMMUNITY SERVICE CONTOUR
20,725 sq km - 2,106,736 persons

PREDICTED 41 dBu F(50,90)
NOISE LIMITED SERVICE CONTOUR
28,180 sq km - 2,453,691 persons

**SUMMARY OF RADIOFREQUENCY
RADIATION STUDY**
WSYX, COLUMBUS, OHIO
CHANNEL 48, 1000 kW ERP, 286 m HAAT
DECEMBER, 2009

<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/cm²)</u>	<u>FCC UNCONTROLLED LIMIT (mW/cm²)</u>	<u>PERCENT OF UNCONTROLLED LIMIT</u>
WSYX	DT	48	677	H & V	303	1000.000	0.300	0.06548	0.451	14.51%
WTTE	DT	36	605	H	288	1000.000	0.300	0.03624	0.403	8.99%
WHKC	FM	218	91.5	H & V	227	15.000	1.000	0.01945	0.200	9.73%
WOSU-FM	FM	209	89.7	H & V	305	13.500	1.000	0.00970	0.200	4.85%
WUFM	FM	204	88.7	H & V	253	5.000	1.000	0.00522	0.200	2.61%
W202CC	FM	202	88.3	H & V	257	0.010	1.000	0.00001	0.200	0.01%
WOSU-FM*	FM	209	89.7	H & V	172	20.000	1.000	0.04517	0.200	22.59%

TOTAL PERCENTAGE OF ANSI VALUE= 63.27%

* Auxiliary Facility

** 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.

