



**STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN APPLICATION FOR
CONSTRUCTION PERMIT
WNWO-TV - TOLEDO, OHIO
DTV - CH. 49 - 105 kW - 423.5 m HAAT**

Prepared for: WNWO 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 WNWO Licensee, LLC, licensee of WNWO-TV, channel 49, licensed to Toledo, 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 to replace its licensed antenna with a new antenna to be installed in the position of its top-mounted former analog antenna.

DIRECTIONAL ANTENNA

The applicant proposes to install a new Dielectric model TFU-12DSC/VP-R elliptically polarized directional transmitting antenna with its center of radiation located at a height above ground of 424.7 meters, and a height above average terrain of 423.5 meters. A vertical plan antenna sketch is shown in Exhibit 1. 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

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WNWO-TV - Toledo, Ohio
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2 and tabulated in exhibit 3, and for the vertically polarized signal component in exhibit 4 and tabulated in exhibit 5. The new antenna's horizontal plane azimuth pattern is precisely the same as the antenna azimuth pattern presently licensed. 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 6 and 7, and is tabulated in Exhibit 8.

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 9 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, Toledo, Ohio.

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 10. Since the new antenna is to be installed with its radiation centerline located 14.2 meters higher than the existing

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antenna, compliance with DA 13-618 requires that WNWO-TV's Effective Radiated Power (ERP) be reduced to a level which will not increase the station's noise-limited contour in any direction.

Even though the station's noise-limited contour is not increased, a study was performed, using the Commission's application processing software, tv_process, to determine if the instant application for construction permit for WNWO-TV 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, shown in Appendix B, 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 31.8 kilometers from the Canadian border. The FCC's database shows that there are no first adjacent-channel records closer than 218 km from WNWO-TV's site. The closest co-channel Canadian record is CBLN-TV, London, Ontario which is also 218 km from WNWO-TV's site. WNWO-TV is not extending its noise-limited contour in any direction, and a separate Longley/Rice study shows no interference to the CBLN-TV grant, therefore 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 one spacing violation or contour overlap to Class A station, WMNT-CA, channel 48, Toledo, Ohio, which is located

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14.5 km from WNWO-TV's site. The Longley-Rice section of the tv_process study results show that WNWO-TV is predicted to cause 0.0728% new interference to WMNT-CA. The predicted new interference is less than 0.5%, and is therefore, acceptable.

AM station considerations

The study also states that the "Proposed station is OK toward AM broadcast stations".

BLANKETING AND INTERMODULATION INTERFERENCE

There are no broadcast facilities co-located with WNWO-TV, however other broadcast and non-broadcast facilities are located within 10 km of WNWO-TV'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

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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 (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 WNWO-TV operating on channel 49 must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For WNWO-TV, which will operate on television Channel 49 (680-686 MHz), the MPE is 0.455 milliwatts per centimeter squared (mW/cm^2) in an "uncontrolled" environment and 2.275 mW/cm^2 in a "controlled" environment. The proposed WNWO-TV facility will operate with a maximum ERP of 105 kW from an elliptically polarized directional transmitting antenna with a centerline height of 424.7 meters above ground level (AGL). Considering a very conservative vertical plane relative field factor of 0.300, the WNWO-TV facility is predicted to produce a power density at two meters above ground level of 0.00353 mW/cm^2 , which is 0.78% of the FCC guideline value for an "uncontrolled" environment, and 0.156% of the FCC's guideline value for "controlled" environments (see

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Appendix A). There are no other full-service or low-power DTV stations, nor FM stations, located within the relevant proximity of 315 meters. The total percentage of the ANSI value at the proposed site is the result of only WNWO-TV.

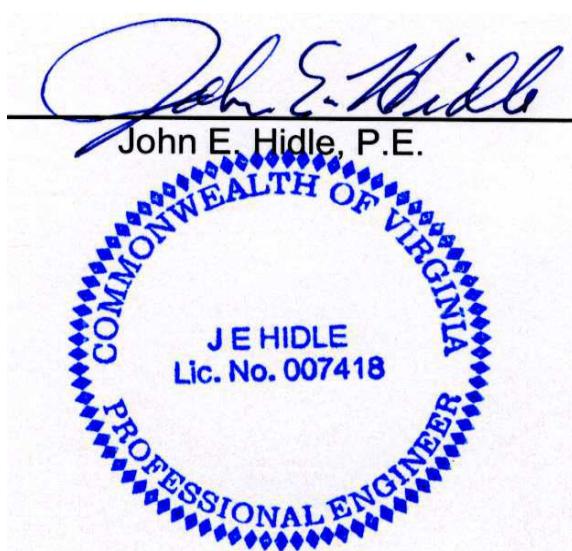
OCCUPATIONAL SAFETY

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

SUMMARY

It is submitted that the instant application for construction permit to replace WNWO-TV'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.

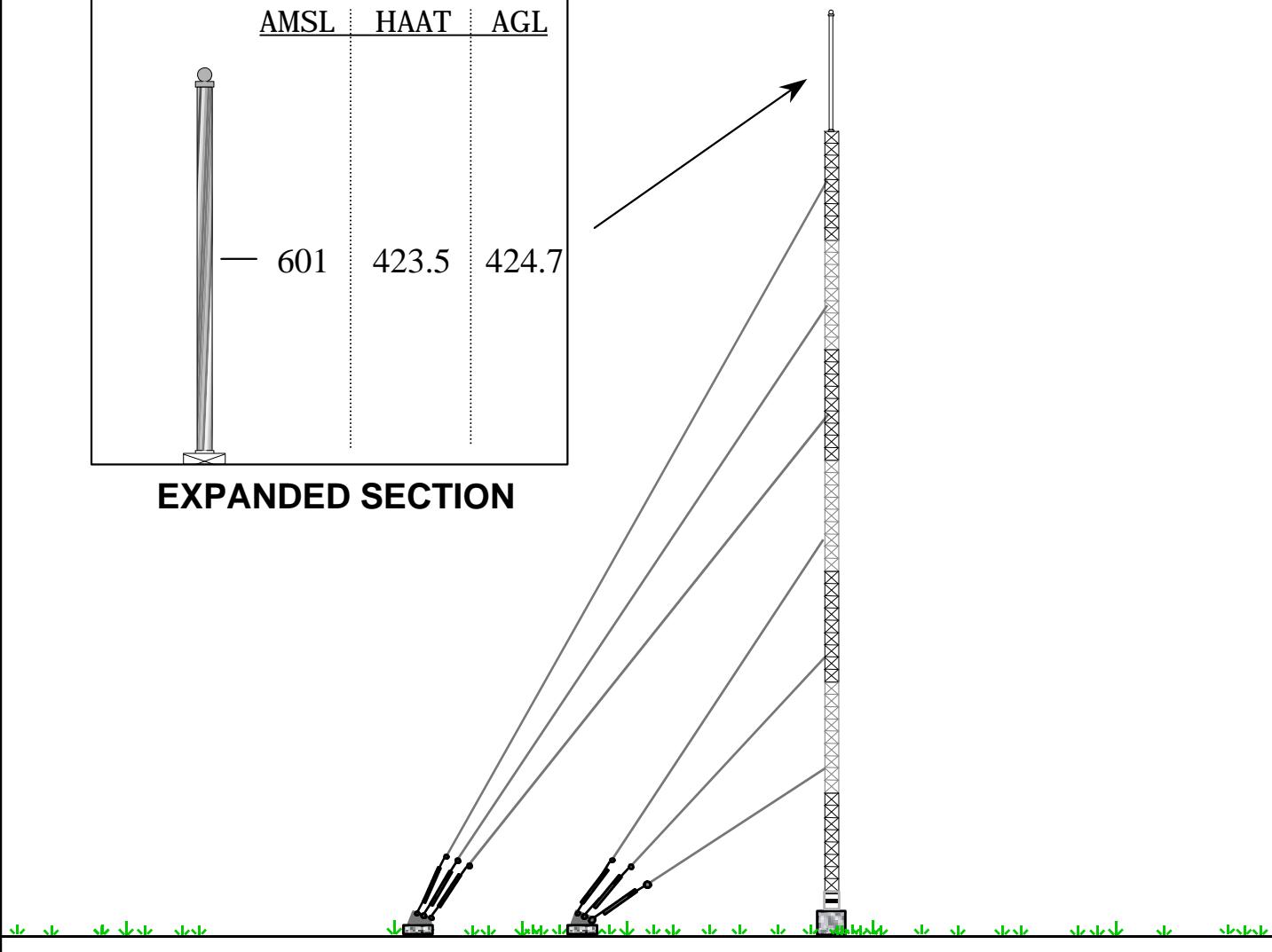
DATED: February 27, 2014



COORDINATES NAD-27
NORTH LATITUDE: 41° 40' 03"
WEST LONGITUDE: 83° 21' 22"

RADIATION CENTERLINE HEIGHT IN METERS		
AMSL	HAAT	AGL
— 601	423.5	424.7

EXPANDED SECTION



VERTICAL PLAN ANTENNA SKETCH
WNWO-TV - TOLEDO, OHIO
Ch. 49 - 105 kW ERP - 423.5 m HAAT
FEBRUARY, 2014

 CARL T. JONES CORPORATION

NOTE : NOT DRAWN TO SCALE

Proposal Number

C-06088**Exhibit 2**

Date

17-Jan-14

Call Letters

WNWO

Channel

49

Location

Toledo, Ohio

Customer

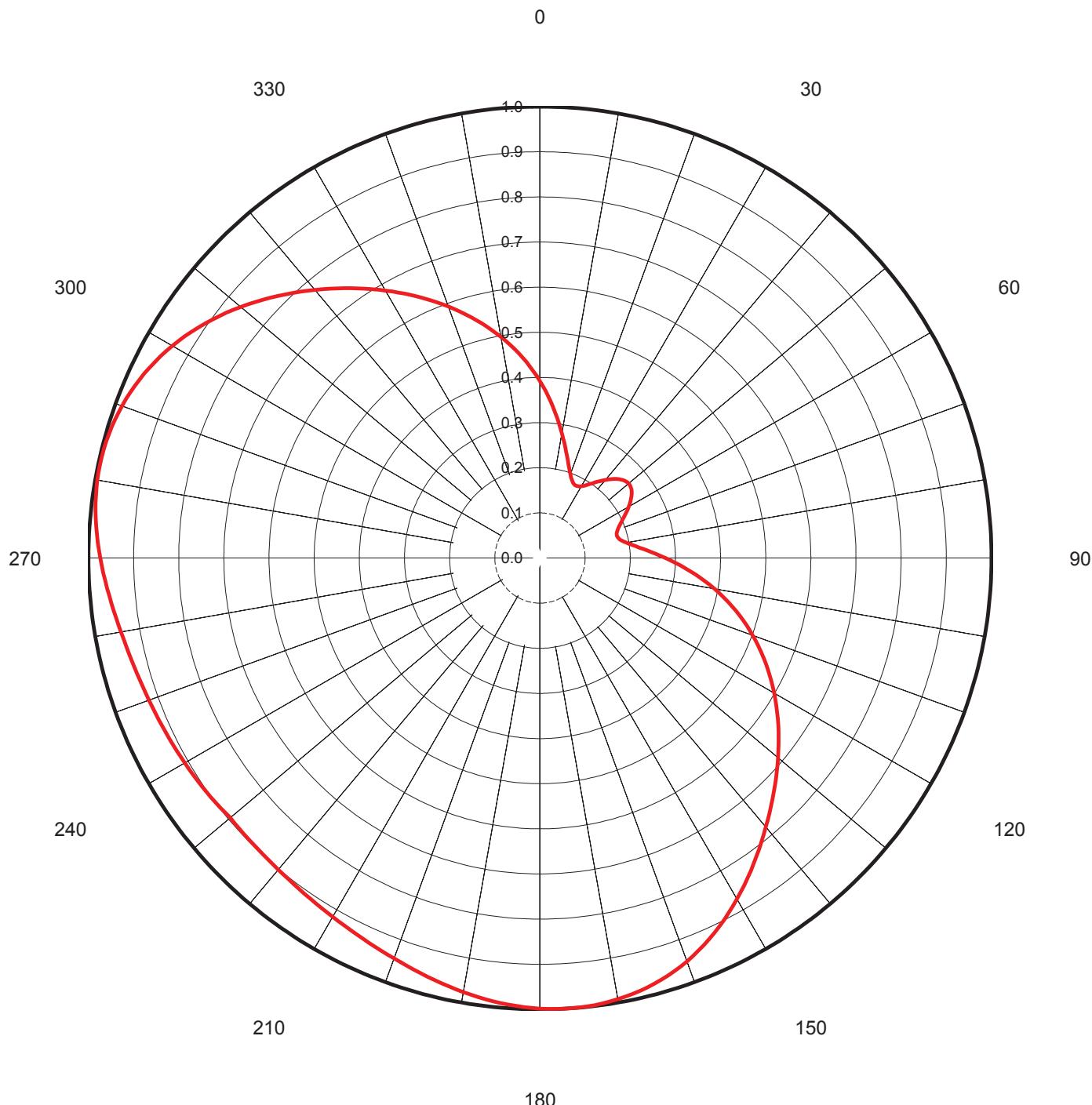
TFU-12DSC/VP-R

Antenna Type

AZIMUTH PATTERN

Gain **1.90**
 Calculated / Measured **(2.79 dB)**
Calculated

Frequency
 Drawing # **683.00 MHz**
TFU-C190-D49



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Proposal Number

C-06088**Exhibit 3**

Date

17-Jan-14

Call Letters

WNWO

Channel

49

Location

Toledo, Ohio

Customer

Antenna Type

TFU-12DSC/VP-R**TABULATION OF AZIMUTH PATTERN**Azimuth Pattern Drawing #: **TFU-C190-D49**

Angle	Field																		
0	0.392	45	0.247	90	0.278	135	0.733	180	0.998	225	0.897	270	0.974	315	0.821				
1	0.381	46	0.250	91	0.289	136	0.742	181	0.997	226	0.897	271	0.977	316	0.812				
2	0.370	47	0.253	92	0.300	137	0.751	182	0.996	227	0.896	272	0.980	317	0.803				
3	0.358	48	0.255	93	0.311	138	0.760	183	0.994	228	0.896	273	0.983	318	0.794				
4	0.347	49	0.256	94	0.322	139	0.769	184	0.992	229	0.896	274	0.985	319	0.784				
5	0.335	50	0.257	95	0.334	140	0.778	185	0.990	230	0.895	275	0.988	320	0.775				
6	0.324	51	0.256	96	0.346	141	0.788	186	0.987	231	0.897	276	0.990	321	0.766				
7	0.313	52	0.255	97	0.357	142	0.797	187	0.985	232	0.898	277	0.992	322	0.757				
8	0.302	53	0.253	98	0.369	143	0.807	188	0.982	233	0.900	278	0.993	323	0.748				
9	0.291	54	0.251	99	0.381	144	0.816	189	0.979	234	0.901	279	0.994	324	0.739				
10	0.280	55	0.248	100	0.393	145	0.826	190	0.976	235	0.902	280	0.995	325	0.730				
11	0.270	56	0.245	101	0.404	146	0.835	191	0.973	236	0.904	281	0.996	326	0.720				
12	0.260	57	0.241	102	0.415	147	0.845	192	0.970	237	0.905	282	0.996	327	0.711				
13	0.250	58	0.236	103	0.427	148	0.854	193	0.967	238	0.906	283	0.996	328	0.702				
14	0.241	59	0.232	104	0.438	149	0.863	194	0.964	239	0.907	284	0.996	329	0.693				
15	0.232	60	0.227	105	0.449	150	0.873	195	0.960	240	0.908	285	0.995	330	0.684				
16	0.224	61	0.222	106	0.460	151	0.882	196	0.957	241	0.910	286	0.993	331	0.675				
17	0.216	62	0.217	107	0.470	152	0.890	197	0.954	242	0.911	287	0.992	332	0.666				
18	0.209	63	0.212	108	0.481	153	0.899	198	0.951	243	0.912	288	0.990	333	0.657				
19	0.203	64	0.207	109	0.491	154	0.907	199	0.947	244	0.913	289	0.988	334	0.648				
20	0.197	65	0.202	110	0.502	155	0.916	200	0.944	245	0.914	290	0.985	335	0.639				
21	0.192	66	0.198	111	0.512	156	0.923	201	0.941	246	0.916	291	0.982	336	0.630				
22	0.188	67	0.194	112	0.522	157	0.931	202	0.938	247	0.917	292	0.979	337	0.620				
23	0.184	68	0.190	113	0.532	158	0.938	203	0.935	248	0.918	293	0.975	338	0.611				
24	0.182	69	0.186	114	0.542	159	0.945	204	0.933	249	0.920	294	0.971	339	0.602				
25	0.180	70	0.183	115	0.552	160	0.951	205	0.930	250	0.921	295	0.967	340	0.593				
26	0.179	71	0.181	116	0.561	161	0.957	206	0.927	251	0.923	296	0.962	341	0.583				
27	0.179	72	0.179	117	0.571	162	0.963	207	0.925	252	0.925	297	0.957	342	0.574				
28	0.180	73	0.178	118	0.580	163	0.968	208	0.922	253	0.926	298	0.952	343	0.565				
29	0.182	74	0.178	119	0.590	164	0.972	209	0.920	254	0.928	299	0.946	344	0.555				
30	0.184	75	0.178	120	0.599	165	0.977	210	0.918	255	0.930	300	0.940	345	0.546				
31	0.187	76	0.180	121	0.608	166	0.981	211	0.916	256	0.932	301	0.934	346	0.536				
32	0.190	77	0.182	122	0.617	167	0.984	212	0.914	257	0.935	302	0.927	347	0.527				
33	0.194	78	0.185	123	0.626	168	0.987	213	0.912	258	0.937	303	0.920	348	0.517				
34	0.198	79	0.189	124	0.635	169	0.990	214	0.910	259	0.940	304	0.913	349	0.507				
35	0.202	80	0.194	125	0.644	170	0.993	215	0.908	260	0.942	305	0.906	350	0.497				
36	0.207	81	0.200	126	0.653	171	0.995	216	0.907	261	0.945	306	0.898	351	0.487				
37	0.211	82	0.206	127	0.662	172	0.996	217	0.905	262	0.948	307	0.890	352	0.477				
38	0.216	83	0.214	128	0.671	173	0.998	218	0.904	263	0.951	308	0.882	353	0.467				
39	0.221	84	0.221	129	0.680	174	0.999	219	0.903	264	0.954	309	0.874	354	0.457				
40	0.226	85	0.229	130	0.688	175	1.000	220	0.901	265	0.958	310	0.865	355	0.446				
41	0.231	86	0.238	131	0.697	176	1.000	221	0.900	266	0.961	311	0.857	356	0.436				
42	0.235	87	0.248	132	0.706	177	1.000	222	0.899	267	0.964	312	0.848	357	0.425				
43	0.240	88	0.257	133	0.715	178	1.000	223	0.899	268	0.967	313	0.839	358	0.414				
44	0.244	89	0.267	134	0.724	179	0.999	224	0.898	269	0.971	314	0.830	359	0.403				

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Proposal Number

C-06088**Exhibit 4**

Date

17-Jan-14**49**

Call Letters

WNWO

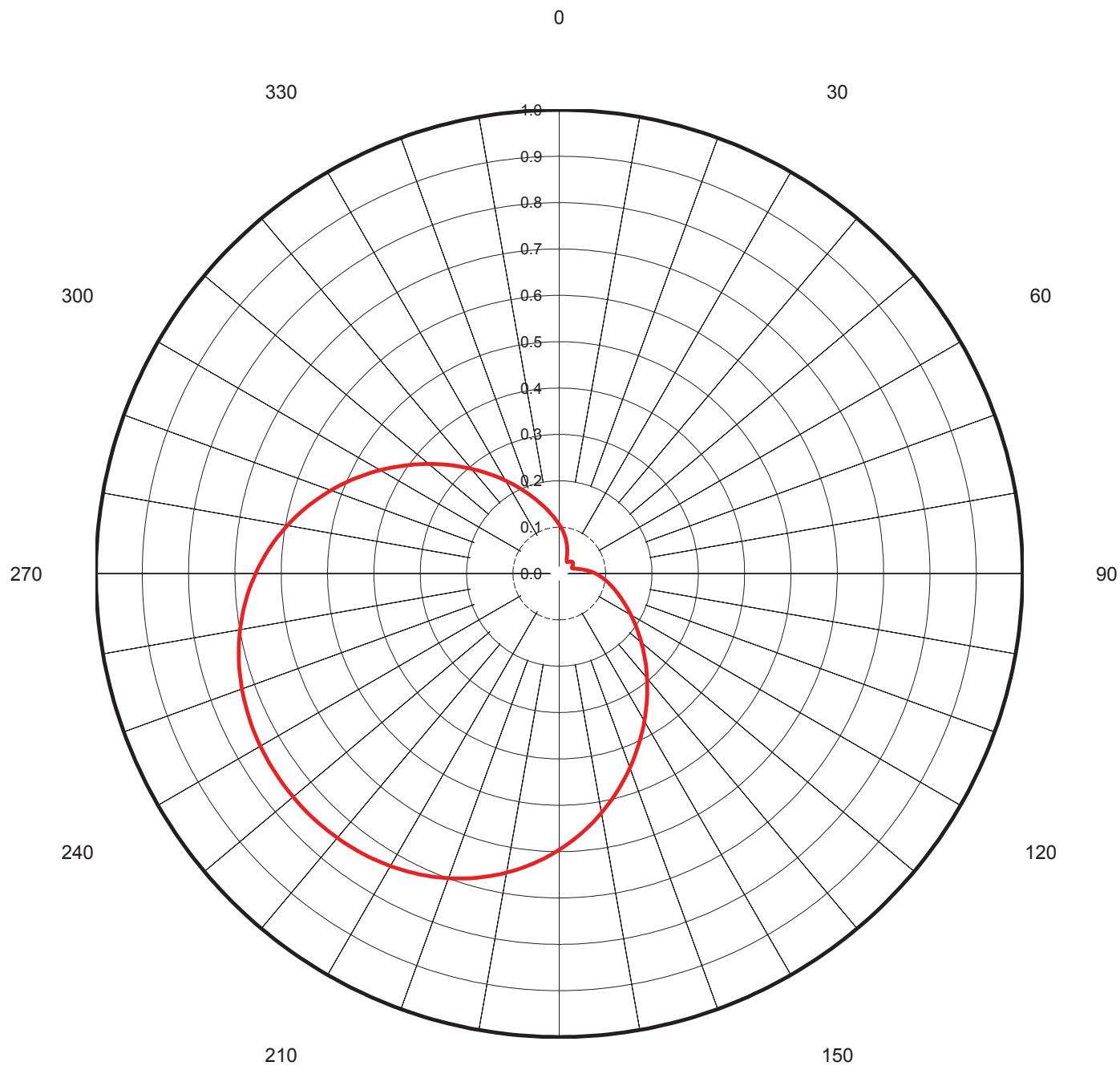
Channel

Location

Toledo, Ohio

Customer

Antenna Type

TFU-12DSC/VP-R**AZIMUTH PATTERN/VERTICAL POLARIZATION**Gain **2.90** (**4.62 dB**)
Calculated / Measured **Calculated**Frequency **683.00 MHz**
Drawing # **TFU-C190-V-D49**

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TABULATION OF AZIMUTH PATTERN/VERTICAL POLARIZATION

Azimuth Pattern Drawing #: **TFU-C190-V-D49**

Angle	Field																
0	0.106	45	0.036	90	0.078	135	0.262	180	0.596	225	0.749	270	0.655	315	0.330		
1	0.103	46	0.037	91	0.081	136	0.268	181	0.603	226	0.749	271	0.650	316	0.323		
2	0.100	47	0.037	92	0.083	137	0.275	182	0.609	227	0.750	272	0.645	317	0.316		
3	0.097	48	0.038	93	0.086	138	0.281	183	0.615	228	0.750	273	0.639	318	0.309		
4	0.094	49	0.038	94	0.089	139	0.288	184	0.622	229	0.750	274	0.633	319	0.302		
5	0.092	50	0.038	95	0.092	140	0.295	185	0.628	230	0.750	275	0.628	320	0.295		
6	0.089	51	0.038	96	0.094	141	0.302	186	0.633	231	0.750	276	0.622	321	0.288		
7	0.086	52	0.038	97	0.097	142	0.309	187	0.639	232	0.750	277	0.615	322	0.281		
8	0.083	53	0.037	98	0.100	143	0.316	188	0.645	233	0.750	278	0.609	323	0.275		
9	0.081	54	0.037	99	0.103	144	0.323	189	0.650	234	0.749	279	0.603	324	0.268		
10	0.078	55	0.036	100	0.106	145	0.330	190	0.655	235	0.749	280	0.596	325	0.262		
11	0.075	56	0.036	101	0.109	146	0.337	191	0.661	236	0.748	281	0.589	326	0.255		
12	0.072	57	0.035	102	0.112	147	0.345	192	0.665	237	0.748	282	0.583	327	0.249		
13	0.070	58	0.034	103	0.115	148	0.352	193	0.670	238	0.747	283	0.576	328	0.243		
14	0.067	59	0.034	104	0.118	149	0.360	194	0.675	239	0.746	284	0.569	329	0.237		
15	0.064	60	0.033	105	0.121	150	0.367	195	0.679	240	0.745	285	0.562	330	0.231		
16	0.061	61	0.032	106	0.124	151	0.375	196	0.684	241	0.744	286	0.554	331	0.225		
17	0.059	62	0.032	107	0.127	152	0.383	197	0.688	242	0.743	287	0.547	332	0.220		
18	0.056	63	0.031	108	0.130	153	0.391	198	0.692	243	0.741	288	0.539	333	0.214		
19	0.053	64	0.030	109	0.134	154	0.398	199	0.696	244	0.740	289	0.532	334	0.209		
20	0.051	65	0.030	110	0.137	155	0.406	200	0.700	245	0.738	290	0.524	335	0.203		
21	0.048	66	0.030	111	0.141	156	0.414	201	0.703	246	0.737	291	0.517	336	0.198		
22	0.046	67	0.030	112	0.145	157	0.422	202	0.707	247	0.735	292	0.509	337	0.193		
23	0.043	68	0.030	113	0.149	158	0.430	203	0.710	248	0.733	293	0.501	338	0.188		
24	0.041	69	0.031	114	0.152	159	0.438	204	0.713	249	0.731	294	0.493	339	0.183		
25	0.039	70	0.032	115	0.157	160	0.446	205	0.716	250	0.729	295	0.486	340	0.179		
26	0.037	71	0.033	116	0.161	161	0.454	206	0.719	251	0.726	296	0.478	341	0.174		
27	0.035	72	0.034	117	0.165	162	0.462	207	0.721	252	0.724	297	0.470	342	0.169		
28	0.034	73	0.035	118	0.169	163	0.470	208	0.724	253	0.721	298	0.462	343	0.165		
29	0.033	74	0.037	119	0.174	164	0.478	209	0.726	254	0.719	299	0.454	344	0.161		
30	0.032	75	0.039	120	0.179	165	0.486	210	0.729	255	0.716	300	0.446	345	0.157		
31	0.031	76	0.041	121	0.183	166	0.493	211	0.731	256	0.713	301	0.438	346	0.152		
32	0.030	77	0.043	122	0.188	167	0.501	212	0.733	257	0.710	302	0.430	347	0.149		
33	0.030	78	0.046	123	0.193	168	0.509	213	0.735	258	0.707	303	0.422	348	0.145		
34	0.030	79	0.048	124	0.198	169	0.517	214	0.737	259	0.703	304	0.414	349	0.141		
35	0.030	80	0.051	125	0.203	170	0.524	215	0.738	260	0.700	305	0.406	350	0.137		
36	0.030	81	0.053	126	0.209	171	0.532	216	0.740	261	0.696	306	0.398	351	0.134		
37	0.031	82	0.056	127	0.214	172	0.539	217	0.741	262	0.692	307	0.391	352	0.130		
38	0.032	83	0.059	128	0.220	173	0.547	218	0.743	263	0.688	308	0.383	353	0.127		
39	0.032	84	0.061	129	0.225	174	0.554	219	0.744	264	0.684	309	0.375	354	0.124		
40	0.033	85	0.064	130	0.231	175	0.562	220	0.745	265	0.679	310	0.367	355	0.121		
41	0.034	86	0.067	131	0.237	176	0.569	221	0.746	266	0.675	311	0.360	356	0.118		
42	0.034	87	0.070	132	0.243	177	0.576	222	0.747	267	0.670	312	0.352	357	0.115		
43	0.035	88	0.072	133	0.249	178	0.583	223	0.748	268	0.665	313	0.345	358	0.112		
44	0.036	89	0.075	134	0.255	179	0.589	224	0.748	269	0.661	314	0.337	359	0.109		

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Proposal Number

C-06088**Exhibit 6**

Date

17-Jan-14

Call Letters

WNWO

Channel

49

Location

Toledo, Ohio

Customer

Antenna Type

TFU-12DSC/VP-R

ELEVATION PATTERN

RMS Gain at Main Lobe

12.00 (10.79 dB)

Beam Tilt

1.00 deg

RMS Gain at Horizontal

10.20 (10.09 dB)

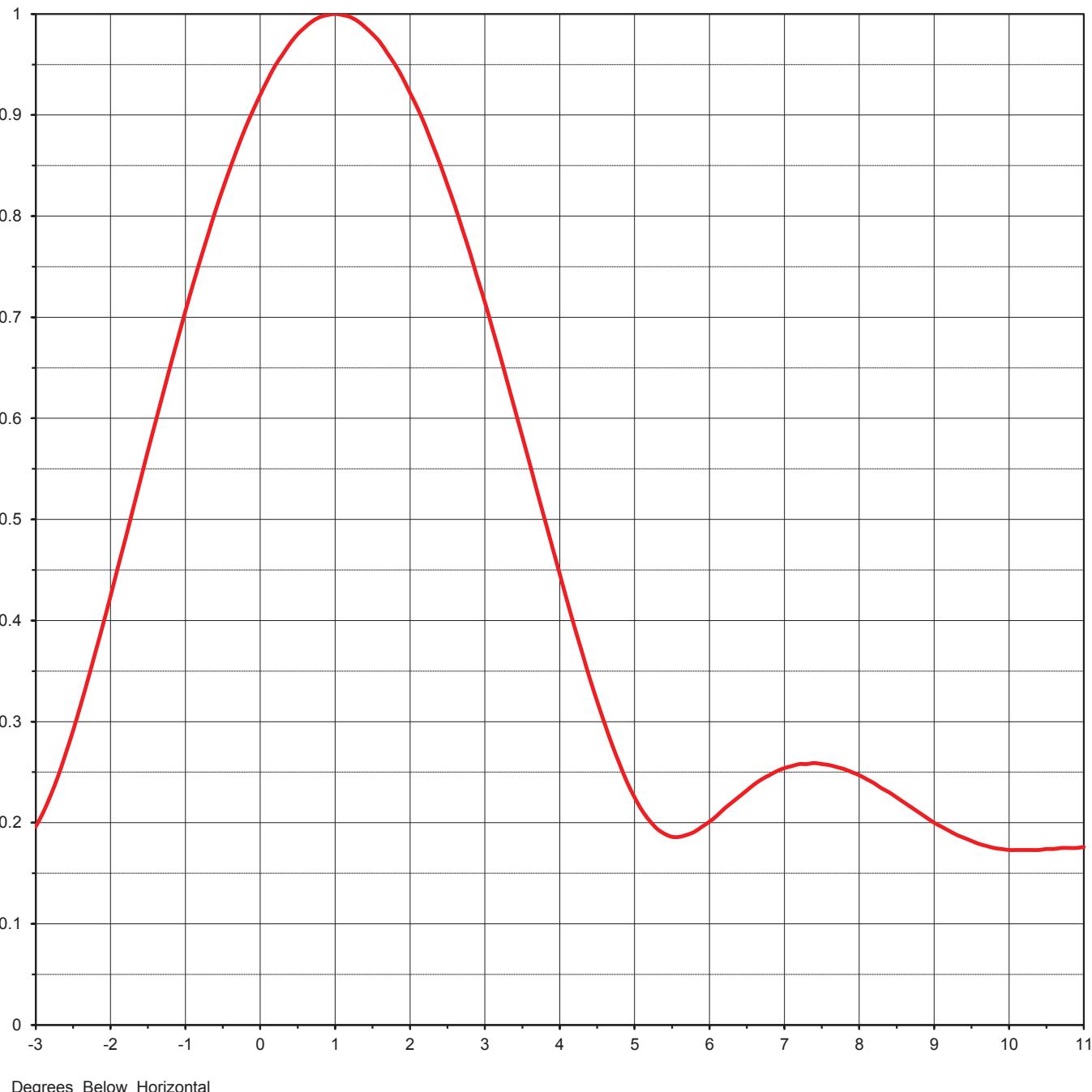
Frequency

683.00 MHz

Calculated / Measured

Calculated

Drawing #

12Q120100

Degrees Below Horizontal

ELEVATION PATTERN

RMS Gain at Main Lobe

12.00 (10.79 dB)

Beam Tilt

1.00 deg

RMS Gain at Horizontal

10.20 (10.09 dB)

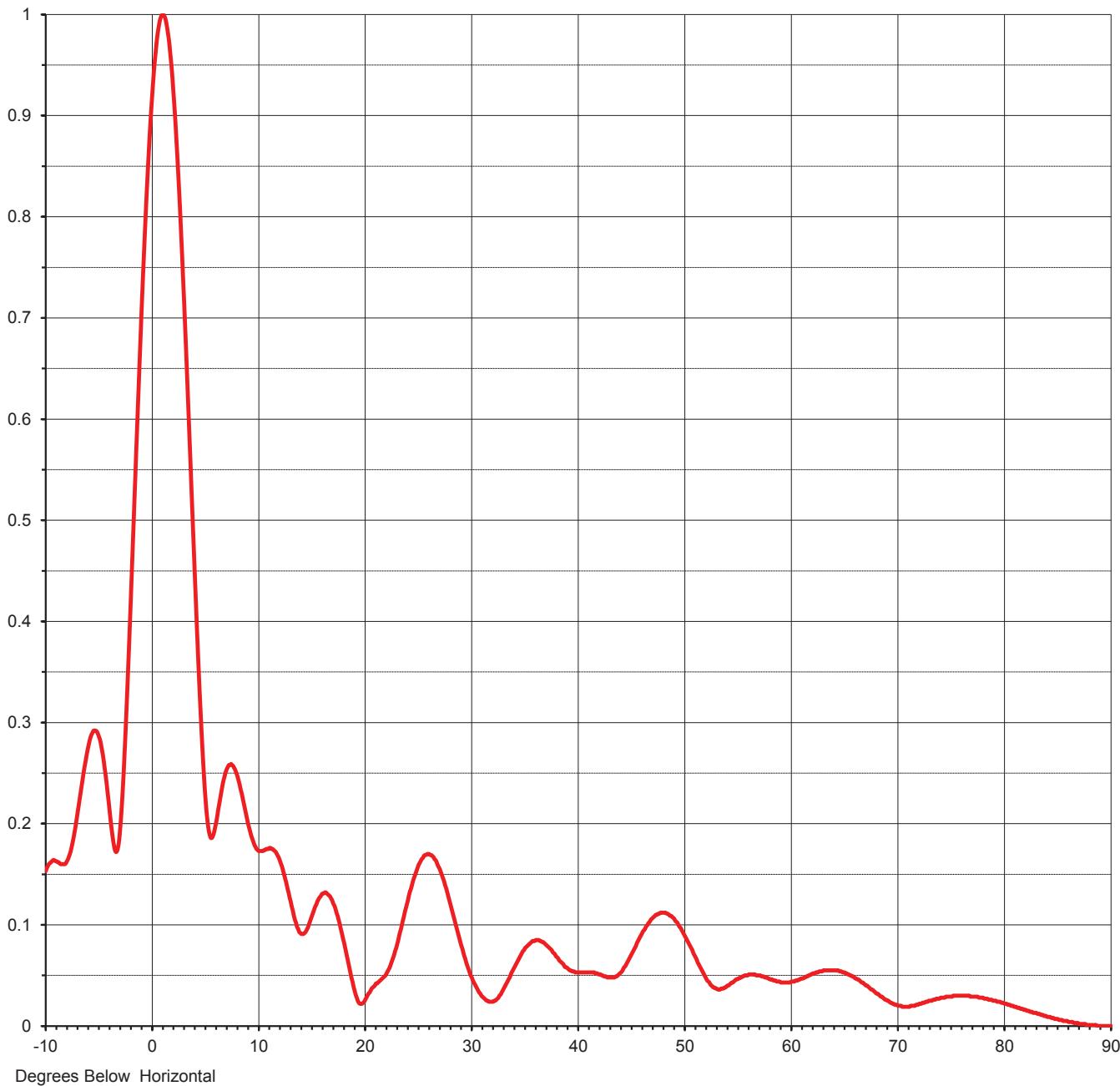
Frequency

683.00 MHz

Calculated / Measured

Calculated

Drawing #

12Q120100-90



Proposal Number **C-06088**
Date **17-Jan-14**
Call Letters **WNWO**
Location **Toledo, Ohio**
Customer
Antenna Type **TFU-12DSC/VP-R**

Exhibit 8

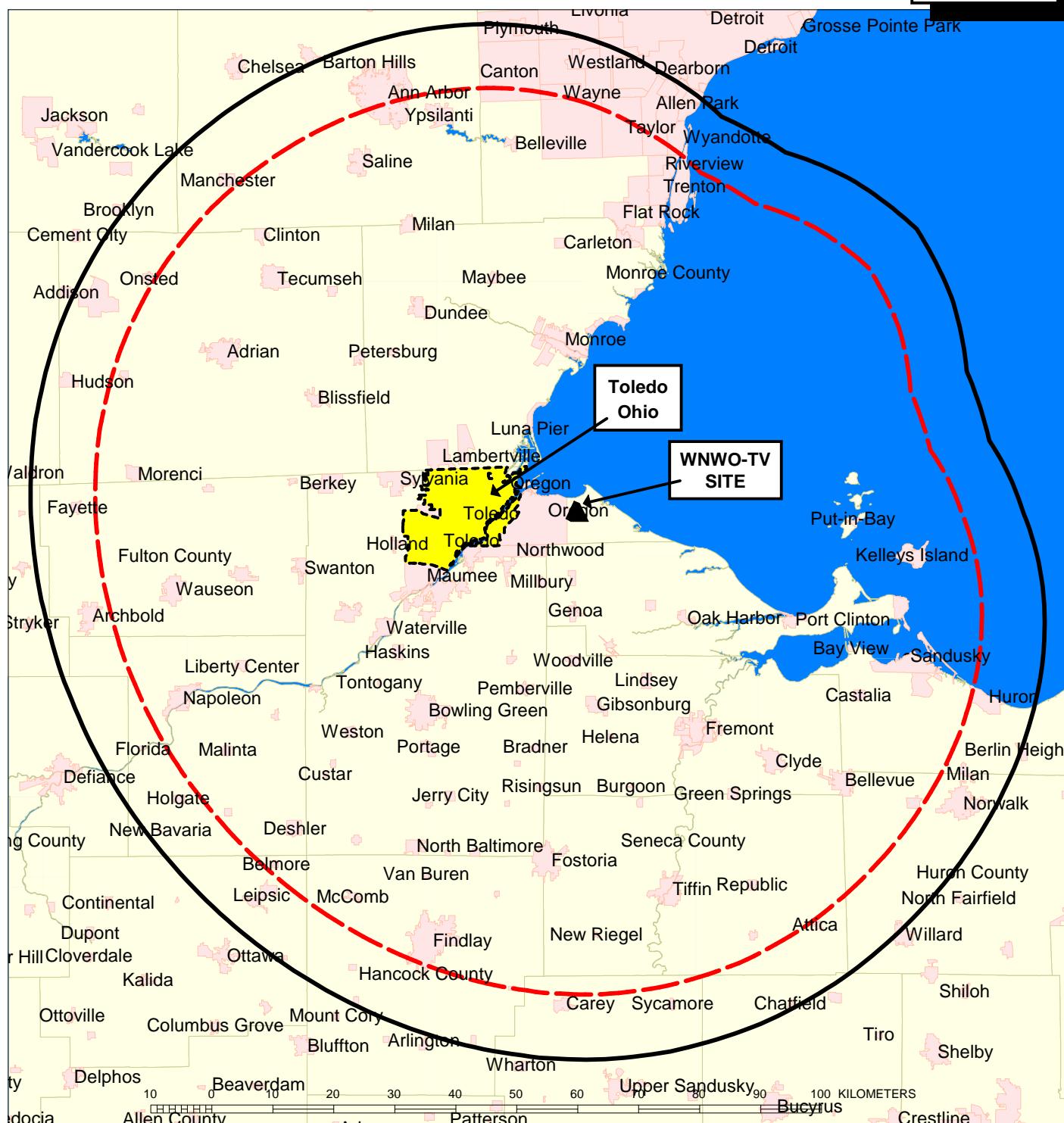
Channel **49**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **12Q120100-90**

Angle	Field										
-10.0	0.153	2.4	0.852	10.6	0.174	30.5	0.039	51.0	0.070	71.5	0.020
-9.5	0.162	2.6	0.810	10.8	0.175	31.0	0.030	51.5	0.059	72.0	0.022
-9.0	0.163	2.8	0.764	11.0	0.175	31.5	0.025	52.0	0.049	72.5	0.023
-8.5	0.160	3.0	0.715	11.5	0.174	32.0	0.024	52.5	0.041	73.0	0.025
-8.0	0.163	3.2	0.663	12.0	0.166	32.5	0.027	53.0	0.037	73.5	0.026
-7.5	0.180	3.4	0.609	12.5	0.149	33.0	0.035	53.5	0.037	74.0	0.028
-7.0	0.211	3.6	0.555	13.0	0.127	33.5	0.045	54.0	0.039	74.5	0.029
-6.5	0.246	3.8	0.500	13.5	0.105	34.0	0.056	54.5	0.043	75.0	0.029
-6.0	0.276	4.0	0.446	14.0	0.092	34.5	0.066	55.0	0.046	75.5	0.030
-5.5	0.292	4.2	0.393	14.5	0.093	35.0	0.075	55.5	0.049	76.0	0.030
-5.0	0.286	4.4	0.343	15.0	0.106	35.5	0.081	56.0	0.050	76.5	0.030
-4.5	0.258	4.6	0.298	15.5	0.120	36.0	0.084	56.5	0.051	77.0	0.029
-4.0	0.213	4.8	0.258	16.0	0.130	36.5	0.084	57.0	0.050	77.5	0.029
-3.5	0.174	5.0	0.225	16.5	0.131	37.0	0.081	57.5	0.049	78.0	0.028
-3.0	0.196	5.2	0.202	17.0	0.124	37.5	0.076	58.0	0.047	78.5	0.026
-2.8	0.227	5.4	0.189	17.5	0.109	38.0	0.069	58.5	0.045	79.0	0.025
-2.6	0.268	5.6	0.186	18.0	0.087	38.5	0.063	59.0	0.044	79.5	0.024
-2.4	0.316	5.8	0.191	18.5	0.063	39.0	0.058	59.5	0.043	80.0	0.022
-2.2	0.369	6.0	0.201	19.0	0.039	39.5	0.054	60.0	0.043	80.5	0.021
-2.0	0.424	6.2	0.214	19.5	0.023	40.0	0.053	60.5	0.045	81.0	0.019
-1.8	0.481	6.4	0.226	20.0	0.024	40.5	0.053	61.0	0.047	81.5	0.017
-1.6	0.539	6.6	0.238	20.5	0.033	41.0	0.053	61.5	0.049	82.0	0.016
-1.4	0.596	6.8	0.247	21.0	0.040	41.5	0.053	62.0	0.051	82.5	0.014
-1.2	0.652	7.0	0.254	21.5	0.045	42.0	0.051	62.5	0.053	83.0	0.013
-1.0	0.706	7.2	0.258	22.0	0.050	42.5	0.049	63.0	0.054	83.5	0.011
-0.8	0.757	7.4	0.259	22.5	0.061	43.0	0.048	63.5	0.055	84.0	0.009
-0.6	0.805	7.6	0.257	23.0	0.077	43.5	0.048	64.0	0.055	84.5	0.008
-0.4	0.848	7.8	0.253	23.5	0.098	44.0	0.052	64.5	0.054	85.0	0.007
-0.2	0.887	8.0	0.247	24.0	0.120	44.5	0.059	65.0	0.053	85.5	0.005
0.0	0.920	8.2	0.239	24.5	0.140	45.0	0.069	65.5	0.050	86.0	0.004
0.2	0.949	8.4	0.230	25.0	0.156	45.5	0.079	66.0	0.047	86.5	0.003
0.4	0.971	8.6	0.220	25.5	0.166	46.0	0.090	66.5	0.044	87.0	0.002
0.6	0.987	8.8	0.210	26.0	0.170	46.5	0.099	67.0	0.040	87.5	0.002
0.8	0.997	9.0	0.200	26.5	0.167	47.0	0.106	67.5	0.036	88.0	0.001
1.0	1.000	9.2	0.192	27.0	0.157	47.5	0.110	68.0	0.032	88.5	0.001
1.2	0.997	9.4	0.185	27.5	0.143	48.0	0.112	68.5	0.029	89.0	0.000
1.4	0.987	9.6	0.179	28.0	0.124	48.5	0.111	69.0	0.025	89.5	0.000
1.6	0.972	9.8	0.177	28.5	0.104	49.0	0.107	69.5	0.022	90.0	0.000
1.8	0.950	10.0	0.174	29.0	0.084	49.5	0.100	70.0	0.020		
2.0	0.922	10.2	0.173	29.5	0.066	50.0	0.091	70.5	0.019		
2.2	0.890	10.4	0.173	30.0	0.050	50.5	0.081	71.0	0.019		

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PREDICTED COVERAGE CONTOURS WNWO-TV TOLEDO, OHIO DTV - CH 49 - 105 kW - 423.5 HAAT

Predicted Principal Community Contour

F(50,90) - 48 dBu

Area = 16,100 sq km

Population = 1,562,988

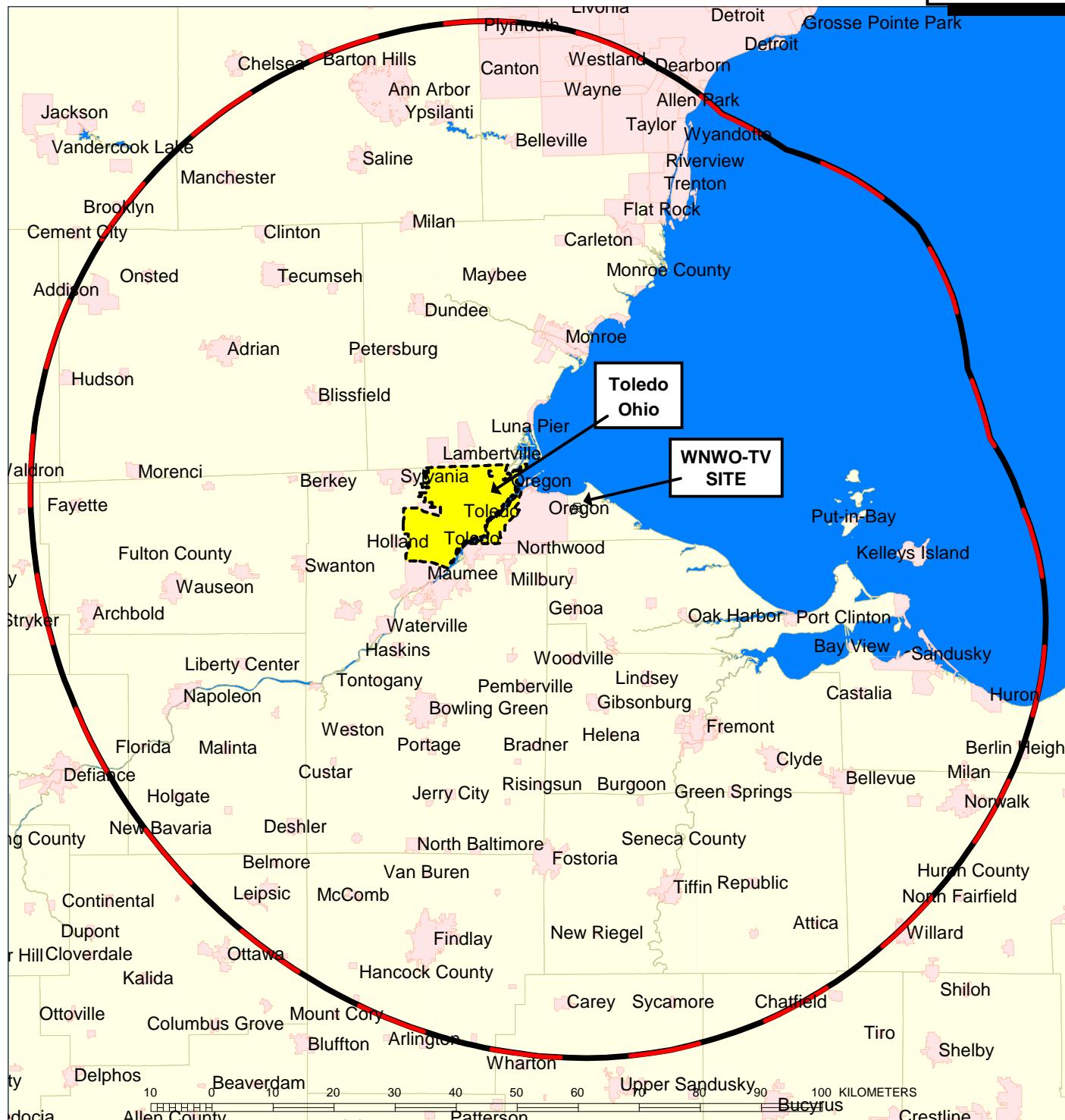
February 2014
Consulting Engineers
CTJC
CARL T. JONES CORPORATION

Predicted Noise Limited Contour

F(50,90) - 41 dBu

Area = 21,045 sq km

Population = 2,312,206



PREDICTED COVERAGE CONTOURS WNWO-TV TOLEDO, OHIO LICENSED V. PROPOSED

Predicted Noise Limited Contour
F(50,90) - 41 dBu - DTV
Licensed Facility
CH 49 - 118 kW - 409.0 m HAAT

February 2014
Consulting Engineers
CTJC
CARL T. JONES CORPORATION

Predicted Noise Limited Contour
F(50,90) - 41 dBu - DTV
Proposed Modified Facility
CH 49 - 105 kW - 423.5 m HAAT

APPENDIX A

**SUMMARY OF RADIOFREQUENCY
RADIATION STUDY**

WNWO-TV, TOLEDO, OHIO

CHANNEL 49, 105 kW ERP, 423.5 m HAAT

FEBRUARY, 2014

<u>CALL</u>	<u>SERVICE</u>	<u>CHANNEL</u>	<u>FREQUENCY</u>	<u>POLARIZATION</u>	<u>ANTENNA HEIGHT **</u>	<u>ERP (kW)</u>	<u>VERT. RELATIVE FIELD FACTOR</u>	<u>PREDICTED POWER DENSITY (mW/cm²)</u>	<u>FCC UNCONTROLLED LIMIT (mW/cm²)</u>	<u>PERCENT OF UNCONTROLLED LIMIT</u>
WNWO-TV	DT	49	683	H & V	422.7	105.000	0.300	0.00353	0.455	0.78%
TOTAL PERCENTAGE OF ANSI VALUE=										0.78%

** 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
WNWO-TV - Channel 49
105 kW - 423.5 meters HAAT
TOLEDO, OHIO
FEBRUARY 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: 02-25-2014 Time: 15:01:53

Record Selected for Analysis

WNWO-TV BLCDT -20120817ABH TOLEDO OH US
Channel 49 ERP 105 kW HAAT 423. m RCAMSL 601.2 m
Latitude 041-40- 3 Longitude 0083-21-22
Status LIC Zone 1 Border C Site number: 01
Dir Antenna Make CDB Model 0000000097309 Beam tilt N Ref Azimuth 0.0
Last update 00000000 Cutoff date 20120914 Docket
Comments

Applicant WNWO 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 (Deg)	ERP (kW)	HAAT (m)	41.0	dBu F(50,90)
0.0	16.135	427.2	76.7	
45.0	6.124	427.2	70.5	
90.0	8.115	427.0	72.3	
135.0	56.415	423.5	84.8	
180.0	104.580	417.8	88.7	
225.0	84.672	416.9	87.2	
270.0	99.611	421.5	88.5	
315.0	70.602	426.9	86.4	

Evaluation toward Class A Stations from site # 01

Station inside contour of Class A station
WMNT-CA 48 TOLEDO OH BLTTL 19990607JB

Class A Evaluation Complete

APPENDIX B
WNWO-TV - TOLEDO, OHIO
Channel 49, 105 kW, Page 2

SPACING VIOLATION FOUND BETWEEN STATION

WNWO-TV 49 TOLEDO OH BLCDT 20120817ABH Site # 01

and station

SHORT TO: WDLI-TV 49 CANTON OH BLCDT 20101129ALX
 041-03-20 0081-35-38

Req. separation 196.3 Actual separation 162.4 Short 33.9 km

SHORT TO: WPXD-TV 50 ANN ARBOR MI BLCDT 20120801ADY
 042-29- 1 0083-18-44

Req. separation => 24.0 <= 110.0 Actual separation 90.7 Short 19.3(66.7) km

SHORT TO: WNWO-TV 49 TOLEDO OH DTVPLN DTVP1748
 041-40- 3 0083-21-22

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 within the Canadian coordination distance
 Distance to border = 31.8km

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Proposed Station				
Channel	Call	City/State	ARN	
49	WNWO-TV	TOLEDO OH	BLCDT	20120817ABH

Chan	Call	City/State	Proposed Station		Application Ref. No.
			Dist(km)	Status	
35	W35AX	CLEVELAND OH	141.7	LIC	BLTTL 19960513JX
41	WOHZ-CA	MANSFIELD OH	117.9	LIC	BLTTA 20060809AHP
48	WAQP	SAGINAW MI	182.0	LIC	BLCDT 20060824ADS
48	WSYX	COLUMBUS OH	194.4	LIC	BLCDT 20100913ACJ
48	WMNT-CA	TOLEDO OH	14.5	CP	BDFCDTA 20120411AAS
48	WMNT-CA	TOLEDO OH	14.5	LIC	BLTTL 19990607JB
49	WOCH-CA	CHICAGO IL	354.5	CP MOD	BMPDTA 20100409AAK
49	WDRB	LOUISVILLE KY	425.4	LIC	BLCDT 20091009AAQ
49	WNYO-TV	BUFFALO NY	421.7	CP	BPCDT 20090717AED
49	WNYO-TV	BUFFALO NY	421.7	LIC	BLCDT 20090619ABO
49	WDLI-TV	CANTON OH	162.0	LIC	BLCDT 20101129ALX
49	WTAP-TV	PARKERSBURG WV	298.7	LIC	BLCDT 20120109ACS
50	WPXD-TV	ANN ARBOR MI	90.8	LIC	BLCDT 20120801ADY

APPENDIX B
WNWO-TV - TOLEDO, OHIO
Channel 49, 105 kW, Page 3

50	WOKZ-CD	KALAMAZOO MI	201.3	LIC	BLDTA	20120306AAW
50	WEAO	AKRON OH	157.7	LIC	BLEDT	20091022AAS

%%%%%%%%%%%%%%

Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application Ref. No.
35	W35AX	CLEVELAND OH	BLTTL -19960513JX

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
28	WUAB	LORAIN OH	2.1	LIC	BLCDT -20020516AAG
31	WJW-DR	CLEVELAND OH	2.9	APP	BPRM -20110111ACO
34	WQHS-DT	CLEVELAND OH	0.5	LIC	BLCDT -20031030AGJ
35	WNIT	SOUTH BEND IN	374.9	LIC	BLEDT -20110516ADN
35	WOUC-TV	CAMBRIDGE OH	147.6	LIC	BLCDT -20050427AAB
35	WLWT	CINCINNATI OH	347.2	LIC	BLCDT -20050502ABC
36	WYTV	YOUNGSTOWN OH	95.6	LIC	BLCDT -20100422ABQ
42	WGGN-TV	SANDUSKY OH	71.9	LIC	BLCDT -20090309AAV
49	WDLI-TV	CANTON OH	37.5	LIC	BLCDT -20101129ALX
49	WNWO-TV	TOLEDO OH	141.7	LIC	BLCDT -20120817ABH
50	WEAO	AKRON OH	33.9	LIC	BLEDT -20091022AAS
49	WNWO-TV	TOLEDO OH	141.7	PLN	DTVPLN -DTVP1748

Proposed station is beyond the site to
nearest cell evaluation distance

#####

Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application Ref. No.
41	WOHZ-CA	MANSFIELD OH	BLTTA -20060809AHP

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
34	WQHS-DT	CLEVELAND OH	103.1	LIC	BLCDT -20031030AGJ
38	WOSU-TV	COLUMBUS OH	72.0	LIC	BLEDT -20100907AAU
40	WHIZ-TV	ZANESVILLE OH	107.2	LIC	BLCDT -20080222AAV
41	WXYZ-TV	DETROIT MI	196.8	APP	BXMLCDT -20120809AAY
41	WXYZ-TV	DETROIT MI	196.8	LIC	BLCDT -20081222AAS
41	WHIO-TV	DAYTON OH	179.5	LIC	BLCDT -20100802AZK
41	WKBN-TV	YOUNGSTOWN OH	168.8	LIC	BLCDT -20120224AAD
41	WCBS-TV	CHARLESTON WV	268.9	LIC	BLCDT -20050621AAQ
42	WGGN-TV	SANDUSKY OH	37.3	LIC	BLCDT -20090309AAV
44	WTLW	LIMA OH	131.8	LIC	BLCDT -20081209AAB
45	WNEO	ALLIANCE OH	144.4	LIC	BLEDT -20090129AAN
48	WSYX	COLUMBUS OH	98.0	LIC	BLCDT -20100913ACJ
49	WDLI-TV	CANTON OH	91.9	LIC	BLCDT -20101129ALX
49	WNWO-TV	TOLEDO OH	117.9	LIC	BLCDT -20120817ABH
56	NEW	DEFIANCE OH	115.9	APP	BPRM -20030718AIQ
49	WNWO-TV	TOLEDO OH	117.9	PLN	DTVPLN -DTVP1748

Proposed station is beyond the site to
nearest cell evaluation distance

APPENDIX B
WNWO-TV - TOLEDO, OHIO
Channel 49, 105 kW, Page 4

#####

Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application Ref. No.
48	WAQP	SAGINAW MI	BLCDT -20060824ADS

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
47	WPBN-DR	TRAVERSE CITY MI	188.1	APP	BPRM -20090724AEF
47	WPBN-TV	TRAVERSE CITY MI	188.1	LIC	BLCDT -20091203AHC
48	WHME-TV	SOUTH BEND IN	250.1	LIC	BLCDT -20060109ABG
48	WJMN-TV	ESCANABA MI	396.4	LIC	BLCDT -20101008ABV
48	WSYX	COLUMBUS OH	375.0	LIC	BLCDT -20100913ACJ
48	WMLW-TV	RACINE WI	314.5	LIC	BLCDT -20090807ACD
49	WNWO-TV	TOLEDO OH	182.0	LIC	BLCDT -20120817ABH
49	WNWO-TV	TOLEDO OH	182.0	PLN	DTVPLN -DTVP1748

Proposal causes no interference

#####

Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application Ref. No.
48	WSYX	COLUMBUS OH	BLCDT -20100913ACJ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
47	WRLM	CANTON OH	193.0	CP	BPCDT -20110830ACB
47	WRLM	CANTON OH	193.0	LIC	BLCDT -20060222AAK
48	WTTV	BLOOMINGTON IN	273.9	LIC	BLCDT -20060630ACD
48	WTTV	BLOOMINGTON IN	273.9	CP	BPCDT -20100324AAF
48	WTTV-DR	BLOOMINGTON IN	273.9	LIC	BPRM -20030820AEO
48	WHME-TV	SOUTH BEND IN	322.2	LIC	BLCDT -20060109ABG
48	WAQP	SAGINAW MI	375.0	LIC	BLCDT -20060824ADS
48	WPXI	PITTSBURGH PA	262.7	LIC	BLCDT -20050609AAQ
48	WVLR	TAZEWELL TN	412.3	LIC	BLCDT -20090507ACB
49	WDLI-TV	CANTON OH	173.2	LIC	BLCDT -20101129ALX
49	WNWO-TV	TOLEDO OH	194.4	LIC	BLCDT -20120817ABH
49	WTAP-TV	PARKERSBURG WV	140.6	LIC	BLCDT -20120109ACS
49	WNWO-TV	TOLEDO OH	194.4	PLN	DTVPLN -DTVP1748

Proposal causes no interference

#####

Analysis of Interference to Affected Station 5

Analysis of current record

Channel	Call	City/State	Application Ref. No.
48	WMNT-CA	TOLEDO OH	BDFCDTA -20120411AAS

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
48	WTTV	BLOOMINGTON IN	333.5	LIC	BLCDT -20060630ACD
48	WTTV	BLOOMINGTON IN	333.5	CP	BPCDT -20100324AAF
48	WTTV-DR	BLOOMINGTON IN	333.5	LIC	BPRM -20030820AEO
48	WHME-TV	SOUTH BEND IN	218.6	LIC	BLCDT -20060109ABG

APPENDIX B
WNWO-TV - TOLEDO, OHIO
Channel 49, 105 kW, Page 5

48	W48AV	DETROIT MI	104.8	CP	BDFCDTL	-20060323AFZ
48	WAQP	SAGINAW MI	179.5	LIC	BLCDT	-20060824ADS
48	WSYX	COLUMBUS OH	195.5	LIC	BLCDT	-20100913ACJ
48	WCPX-LP	COLUMBUS OH	186.9	LIC	BLTTL	-20080131ADD
48	WPXI	PITTSBURGH PA	323.7	LIC	BLCDT	-20050609AAQ
49	WNWO-TV	TOLEDO OH	14.5	LIC	BLCDT	-20120817ABH
49	WNWO-TV	TOLEDO OH	14.5	PLN	DTVPPLN	-DTVP1748

Total scenarios = 1

Result key: 1
Scenario 1 Affected station 5
Before Analysis

Results for: 48A OH TOLEDO BDFCDTA 20120411AAS CP
 HAAT 0.0 m, ATV ERP 15.0 kW
 POPULATION AREA (sq km)
 within Noise Limited Contour 758128 6122.0
 not affected by terrain losses 758128 6122.0
 lost to NTSC IX 0 0.0
 lost to additional IX by ATV 109 4.0
 lost to ATV IX only 109 4.0
 lost to all IX 109 4.0

Potential Interfering Stations Included in above Scenario
49A OH TOLEDO DTVPLN DTVP1748 PLN

After Analysis

Results for: 48A OH TOLEDO	BDFCDTA	20120411AAS	CP
HAAT 0.0 m, ATV ERP 15.0 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	758128	6122.0	
not affected by terrain losses	758128	6122.0	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	661	8.1	
lost to ATV IX only	661	8.1	
lost to all IX	661	8.1	

Potential Interfering Stations Included in above Scenario
49A OH TOLEDO BLCDT 20120817ABH LIC

Percent new IX = 0.0728%

Worst case new IX 0.0728% Scenario 1

#####

Analysis of Interference to Affected Station 6

Analysis of current record

Channel	Call	City/State	Application Ref. No.
48	WMNT-CA	TOLEDO OH	BLTTL -19990607JB

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
40	WKAR-TV	EAST LANSING MI	137.4	LIC	BLEDT -20110817ACE
41	WXYZ-TV	DETROIT MI	93.7	APP	BXMLCDT -20120809AAY
41	WXYZ-TV	DETROIT MI	93.7	LIC	BLCDT -20081222AAS

APPENDIX B
WNWO-TV - TOLEDO, OHIO
Channel 49, 105 kW, Page 6

44	WWJ-TV	DETROIT MI	93.1	LIC	BLCDT	-20100419AAS
44	WTLW	LIMA OH	113.0	LIC	BLCDT	-20081209AAB
45	WDIV-TV	DETROIT MI	96.0	LIC	BLCDT	-20090624ABW
46	WUPW	TOLEDO OH	7.1	LIC	BLCDT	-20030411AAF
46	WUPW	TOLEDO OH	7.1	CP	BPCDT	-20080619AJB
48	WTW	BLOOMINGTON IN	333.5	LIC	BLCDT	-20060630ACD
48	WTW	BLOOMINGTON IN	333.5	CP	BPCDT	-20100324AAF
48	WTW-DR	BLOOMINGTON IN	333.5	LIC	BPRM	-20030820AEQ
48	WHME-TV	SOUTH BEND IN	218.6	LIC	BLCDT	-20060109ABG
48	WAQP	SAGINAW MI	179.5	LIC	BLCDT	-20060824ADS
48	WSYX	COLUMBUS OH	195.5	LIC	BLCDT	-20100913ACJ
48	WCPX-LP	COLUMBUS OH	186.9	LIC	BLTTL	-20080131ADD
48	WPXI	PITTSBURGH PA	323.7	LIC	BLCDT	-20050609AAQ
49	WNWO-TV	TOLEDO OH	14.5	LIC	BLCDT	-20120817ABH
50	WPXD-TV	ANN ARBOR MI	94.0	LIC	BLCDT	-20120801ADY
51	WLAJ	LANSING MI	118.3	LIC	BLCDT	-20040422ABI
56	NEW	DEFIANCE OH	65.5	APP	BPRM	-20030718AIQ
49	WNWO-TV	TOLEDO OH	14.5	PLN	DTVPLN	-DTVP1748

Total scenarios = 2

Result key: 2
 Scenario 1 Affected station 6
 Before Analysis

Results for: 48N OH TOLEDO

	BLTTL	19990607JB	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	467015	805.5	
not affected by terrain losses	467015	805.5	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	271	8.1	
lost to all IX	271	8.1	

Potential Interfering Stations Included in above Scenario 1

46A OH TOLEDO	BLCDT	20030411AAF	LIC
49A OH TOLEDO	DTVPLN	DTVP1748	PLN

After Analysis

Results for: 48N OH TOLEDO

	BLTTL	19990607JB	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	467015	805.5	
not affected by terrain losses	467015	805.5	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	271	8.1	
lost to all IX	271	8.1	

Potential Interfering Stations Included in above Scenario 1

46A OH TOLEDO	BLCDT	20030411AAF	LIC
49A OH TOLEDO	BLCDT	20120817ABH	LIC

Percent new IX = 0.0000%

Result key: 3
 Scenario 2 Affected station 6
 Before Analysis

Results for: 48N OH TOLEDO

	BLTTL	19990607JB	LIC
	POPULATION	AREA (sq km)	

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Channel 49, 105 kW, Page 7

within Noise Limited Contour	467015	805.5
not affected by terrain losses	467015	805.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	271	8.1
lost to all IX	271	8.1

Potential Interfering Stations Included in above Scenario 2
 46A OH TOLEDO BPCDT 20080619AJB CP
 49A OH TOLEDO DTVPLN DTVP1748 PLN

After Analysis

Results for: 48N OH TOLEDO	BLTTL	19990607JB	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	467015	805.5	
not affected by terrain losses	467015	805.5	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	271	8.1	
lost to all IX	271	8.1	

Potential Interfering Stations Included in above Scenario 2
 46A OH TOLEDO BPCDT 20080619AJB CP
 49A OH TOLEDO BLCDT 20120817ABH LIC

Percent new IX = 0.0000%

Worst case new IX 0.0000% Scenario 1

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Analysis of Interference to Affected Station 7

Analysis of current record
 Channel Call City/State Application Ref. No.
 49 WOCH-CA CHICAGO IL BMPDTA -20100409AAK

Stations Potentially Affecting This Station					
Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
48	WMEU-LP	CHICAGO IL	2.5	LIC	BLTTA -20110919AFF
48	W40CN-D	SUGAR GROVE IL	38.6	APP	BDISDTA -20121219ACH
48	WHME-TV	SOUTH BEND IN	125.9	LIC	BLCDT -20060109ABG
49	KLJB	DAVENPORT IA	238.2	LIC	BLCDT -20050713ADL
49	WAAA-LP	WESTVILLE IN	65.1	CP	BDFCDTL -20110824BCX
49	W49DS-D	WOLCOTT IN	134.7	CP	BNPDTL -20100112ADY
49	WNWO-TV	TOLEDO OH	354.5	LIC	BLCDT -20120817ABH
49	WMSN-TV	MADISON WI	202.7	LIC	BLCDT -20101223ABD
50	WXFT-DT	AURORA IL	0.0	CP	BPCDT -20120920AEA
50	WXFT-DT	AURORA IL	2.5	LIC	BLCDT -20101116BHE
49	WNWO-TV	TOLEDO OH	354.5	PLN	DTVPLN -DTVP1748

Proposed station is beyond the site to
 nearest cell evaluation distance

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Analysis of Interference to Affected Station 8

Analysis of current record
 Channel Call City/State Application Ref. No.

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49 WDRB LOUISVILLE KY BLCDT -20091009AAQ

Stations Potentially Affecting This Station					
Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
48	WTTV	BLOOMINGTON IN	120.3	LIC	BLCDT -20060630ACD
48	WTTV	BLOOMINGTON IN	120.3	CP	BPCDT -20100324AAF
48	WTTV-DR	BLOOMINGTON IN	120.3	LIC	BPRM -20030820AEO
48	WKGB-TV	BOWLING GREEN KY	156.2	LIC	BMLEDT -20120702ACF
49	WDKA	PADUCAH KY	291.2	LIC	BLCDT -20100216ADH
49	WNWO-TV	TOLEDO OH	425.4	LIC	BLCDT -20120817ABH
49	WLFG	GRUNDY VA	372.5	LIC	BLCDT -20071025ACW
49	WTAP-TV	PARKERSBURG WV	387.1	LIC	BLCDT -20120109ACS
50	WDTN	DAYTON OH	205.1	LIC	BLCDT -20050629AAL
49	WNWO-TV	TOLEDO OH	425.4	PLN	DTVPLN -DTVP1748

Proposal causes no interference

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Analysis of Interference to Affected Station 9

Analysis of current record

Channel	Call	City/State	Application Ref. No.
49	WNYO-TV	BUFFALO NY	BPCDT -20090717AED

Stations Potentially Affecting This Station					
Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
48	WYDC	CORNING NY	133.7	LIC	BLCDT -20090220ABG
49	WDLI-TV	CANTON OH	322.7	LIC	BLCDT -20101129ALX
49	WNWO-TV	TOLEDO OH	421.7	LIC	BLCDT -20120817ABH
50	WQLN	ERIE PA	155.5	LIC	BLEDT -20130603AKJ
49	WNWO-TV	TOLEDO OH	421.7	PLN	DTVPLN -DTVP1748

Proposed station is beyond the site to
nearest cell evaluation distance

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Analysis of Interference to Affected Station 10

Analysis of current record

Channel	Call	City/State	Application Ref. No.
49	WNYO-TV	BUFFALO NY	BLCDT -20090619ABO

Stations Potentially Affecting This Station					
Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
48	WYDC	CORNING NY	133.7	LIC	BLCDT -20090220ABG
49	WDLI-TV	CANTON OH	322.7	LIC	BLCDT -20101129ALX
49	WNWO-TV	TOLEDO OH	421.7	LIC	BLCDT -20120817ABH
50	WQLN	ERIE PA	155.5	LIC	BLEDT -20130603AKJ
49	WNWO-TV	TOLEDO OH	421.7	PLN	DTVPLN -DTVP1748

Proposed station is beyond the site to
nearest cell evaluation distance

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APPENDIX B
WNWO-TV - TOLEDO, OHIO
Channel 49, 105 kW, Page 9

Analysis of Interference to Affected Station 11

Analysis of current record

Channel	Call	City/State	Application Ref. No.
49	WDLI-TV	CANTON OH	BLCDT -20101129ALX

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
48	WSYX	COLUMBUS OH	173.2	LIC	BLCDT -20100913ACJ
48	WPXI	PITTSBURGH PA	149.1	LIC	BLCDT -20050609AAQ
49	WNYO-TV	BUFFALO NY	322.7	CP	BPCDT -20090717AED
49	WNYO-TV	BUFFALO NY	322.7	LIC	BLCDT -20090619ABO
49	WNWO-TV	TOLEDO OH	162.0	LIC	BLCDT -20120817ABH
49	WHSV-TV	HARRISONBURG VA	371.8	LIC	BLCDT -20060413ACO
49	WTAP-TV	PARKERSBURG WV	189.6	LIC	BLCDT -20120109ACS
50	WPXD-TV	ANN ARBOR MI	213.3	LIC	BLCDT -20120801ADY
50	WEAO	AKRON OH	4.5	LIC	BLEDT -20091022AAS
50	WQLN	ERIE PA	167.9	LIC	BLEDT -20130603AKJ
50	WPCB-TV	GREENSBURG PA	169.5	LIC	BLCDT -20030409ABC
49	WNWO-TV	TOLEDO OH	162.0	PLN	DTVPLN -DTVP1748

Total scenarios = 2

Result key: 4

Scenario 1 Affected station 11

Before Analysis

Results for: 49A OH CANTON BLCDT 20101129ALX LIC

HAAT 292.0 m, ATV ERP 900.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	4108620	23165.7
not affected by terrain losses	4082861	22812.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	62345	1360.6
lost to ATV IX only	62345	1360.6
lost to all IX	62345	1360.6

Potential Interfering Stations Included in above Scenario 1

48A PA PITTSBURGH	BLCDT	20050609AAQ	LIC
49A NY BUFFALO	BPCDT	20090717AED	CP
49A WV PARKERSBURG	BLCDT	20120109ACS	LIC
50A OH AKRON	BLEDT	20091022AAS	LIC
50A PA ERIE	BLEDT	20130603AKJ	LIC
49A OH TOLEDO	DTVPLN	DTVP1748	PLN

After Analysis

Results for: 49A OH CANTON BLCDT 20101129ALX LIC

HAAT 292.0 m, ATV ERP 900.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	4108620	23165.7
not affected by terrain losses	4082861	22812.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	71433	1533.1
lost to ATV IX only	71433	1533.1
lost to all IX	71433	1533.1

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Channel 49, 105 kW, Page 10

Potential Interfering Stations Included in above Scenario				1
48A PA PITTSBURGH	BLCDT	20050609AAQ	LIC	
49A NY BUFFALO	BPCDT	20090717AED	CP	
49A WV PARKERSBURG	BLCDT	20120109ACS	LIC	
50A OH AKRON	BLEDT	20091022AAS	LIC	
50A PA ERIE	BLEDT	20130603AKJ	LIC	
49A OH TOLEDO	BLCDT	20120817ABH	LIC	

Percent new IX = 0.2260%

Result key: 5
 Scenario 2 Affected station 11
 Before Analysis

Results for: 49A OH CANTON	BLCDT	20101129ALX	LIC
HAAT 292.0 m, ATV ERP 900.0 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	4108620	23165.7	
not affected by terrain losses	4082861	22812.6	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	62345	1360.6	
lost to ATV IX only	62345	1360.6	
lost to all IX	62345	1360.6	

Potential Interfering Stations Included in above Scenario	2		
48A PA PITTSBURGH	BLCDT	20050609AAQ	LIC
49A NY BUFFALO	BLCDT	20090619ABO	LIC
49A WV PARKERSBURG	BLCDT	20120109ACS	LIC
50A OH AKRON	BLEDT	20091022AAS	LIC
50A PA ERIE	BLEDT	20130603AKJ	LIC
49A OH TOLEDO	DTVPLN	DTVP1748	PLN

After Analysis

Results for: 49A OH CANTON	BLCDT	20101129ALX	LIC
HAAT 292.0 m, ATV ERP 900.0 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	4108620	23165.7	
not affected by terrain losses	4082861	22812.6	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	71433	1533.1	
lost to ATV IX only	71433	1533.1	
lost to all IX	71433	1533.1	

Potential Interfering Stations Included in above Scenario	2		
48A PA PITTSBURGH	BLCDT	20050609AAQ	LIC
49A NY BUFFALO	BLCDT	20090619ABO	LIC
49A WV PARKERSBURG	BLCDT	20120109ACS	LIC
50A OH AKRON	BLEDT	20091022AAS	LIC
50A PA ERIE	BLEDT	20130603AKJ	LIC
49A OH TOLEDO	BLCDT	20120817ABH	LIC

Percent new IX = 0.2260%

Worst case new IX 0.2260% Scenario 1

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APPENDIX B
WNWO-TV - TOLEDO, OHIO
Channel 49, 105 kW, Page 11

Analysis of Interference to Affected Station 12

Analysis of current record

Channel	Call	City/State	Application Ref. No.
49	WTAP-TV	PARKERSBURG WV	BLCDT -20120109ACS

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
48	WSYX	COLUMBUS OH	140.6	LIC	BLCDT -20100913ACJ
48	WPXI	PITTSBURGH PA	181.7	LIC	BLCDT -20050609AAQ
49	WDRB	LOUISVILLE KY	387.1	LIC	BLCDT -20091009AAQ
49	WDLI-TV	CANTON OH	189.6	LIC	BLCDT -20101129ALX
49	WNWO-TV	TOLEDO OH	298.7	LIC	BLCDT -20120817ABH
49	WLFG	GRUNDY VA	283.7	LIC	BLCDT -20071025ACW
49	WHSV-TV	HARRISONBURG VA	266.7	LIC	BLCDT -20060413ACO
50	WEAO	AKRON OH	192.7	LIC	BLEDT -20091022AAS
50	WPCB-TV	GREENSBURG PA	191.3	LIC	BLCDT -20030409ABC
50	NEW	OAK HILL WV	158.9	APP	BPRM -20070724ADI
50	WOAY-TV	OAK HILL WV	158.9	LIC	BLCDT -20070426AAK
49	WNWO-TV	TOLEDO OH	298.7	PLN	DTVPLN -DTVP1748

Total scenarios = 1

Result key: 6

Scenario 1 Affected station 12

Before Analysis

Results for: 49A WV PARKERSBURG	BLCDT	20120109ACS	LIC
HAAT 196.0 m, ATV ERP 315.0 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	474159	17765.5	
not affected by terrain losses	446987	17020.7	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	13761	257.6	
lost to ATV IX only	13761	257.6	
lost to all IX	13761	257.6	

Potential Interfering Stations Included in above Scenario 1

49A OH CANTON	BLCDT	20101129ALX	LIC
49A VA GRUNDY	BLCDT	20071025ACW	LIC
49A VA HARRISONBURG	BLCDT	20060413ACO	LIC
49A OH TOLEDO	DTVPLN	DTVP1748	PLN

After Analysis

Results for: 49A WV PARKERSBURG	BLCDT	20120109ACS	LIC
HAAT 196.0 m, ATV ERP 315.0 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	474159	17765.5	
not affected by terrain losses	446987	17020.7	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	13761	257.6	
lost to ATV IX only	13761	257.6	
lost to all IX	13761	257.6	

Potential Interfering Stations Included in above Scenario 1

49A OH CANTON	BLCDT	20101129ALX	LIC
49A VA GRUNDY	BLCDT	20071025ACW	LIC
49A VA HARRISONBURG	BLCDT	20060413ACO	LIC

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WNWO-TV - TOLEDO, OHIO
Channel 49, 105 kW, Page 12

49A OH TOLEDO BLCDT 20120817ABH LIC

Percent new IX = 0.0000%

Worst case new IX 0.0000% Scenario 1

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Analysis of Interference to Affected Station 13

Analysis of current record

Channel	Call	City/State	Application Ref. No.
50	WPXD-TV	ANN ARBOR MI	BLCDT -20120801ADY

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
49	WDLI-TV	CANTON OH	213.3	LIC	BLCDT -20101129ALX
49	WNWO-TV	TOLEDO OH	90.8	LIC	BLCDT -20120817ABH
50	WXFT-DT	AURORA IL	360.9	CP	BPCDT -20120920AEA
50	WXFT-DT	AURORA IL	362.3	LIC	BLCDT -20101116BHE
50	WEAO	AKRON OH	208.8	LIC	BLEDT -20091022AAS
50	WDTN	DAYTON OH	317.3	LIC	BLCDT -20050629AAL
50	WQLN	ERIE PA	271.5	LIC	BLEDT -20130603AKJ
50	WPCB-TV	GREENSBURG PA	374.8	LIC	BLCDT -20030409ABC
51	WLAJ	LANSING MI	99.6	LIC	BLCDT -20040422ABI
49	WNWO-TV	TOLEDO OH	90.8	PLN	DTVPLN -DTVP1748

Total scenarios = 1

Result key: 7
Scenario 1 Affected station 13
Before Analysis

Results for: 50A MI ANN ARBOR BLCDT 20120801ADY LIC

HAAT	293.0 m, ATV ERP 345.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	5366819	22550.4	
not affected by terrain losses	5366216	22538.3	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	16581	672.0	
lost to ATV IX only	16581	672.0	
lost to all IX	16581	672.0	

Potential Interfering Stations Included in above Scenario 1

50A OH AKRON	BLEDT	20091022AAS	LIC
51A MI LANSING	BLCDT	20040422ABI	LIC

After Analysis

Results for: 50A MI ANN ARBOR BLCDT 20120801ADY LIC

HAAT	293.0 m, ATV ERP 345.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	5366819	22550.4	
not affected by terrain losses	5366216	22538.3	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	17235	676.0	
lost to ATV IX only	17235	676.0	
lost to all IX	17235	676.0	

APPENDIX B
WNWO-TV - TOLEDO, OHIO
Channel 49, 105 kW, Page 13

Potential Interfering Stations Included in above Scenario	1		
50A OH AKRON	BLEDT	20091022AAS	LIC
51A MI LANSING	BLCDT	20040422ABI	LIC
49A OH TOLEDO	BLCDT	20120817ABH	LIC

Percent new IX = 0.0122%

Worst case new IX 0.0122% Scenario 1

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Analysis of Interference to Affected Station 14

Analysis of current record

Channel	Call	City/State	Application Ref. No.
50	WOKZ-CD	KALAMAZOO MI	BLDTA -20120306AAW

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
49	WNWO-TV	TOLEDO OH	201.3	LIC	BLCDT -20120817ABH
50	WXFT-DT	AURORA IL	169.3	CP	BPCDT -20120920AEA
50	WXFT-DT	AURORA IL	170.9	LIC	BLCDT -20101116BHE
50	WEIU-TV	CHARLESTON IL	376.7	LIC	BLEDT -20060504AAW
50	WPXD-TV	ANN ARBOR MI	192.3	LIC	BLCDT -20120801ADY
50	WEAO	AKRON OH	358.9	LIC	BLEDT -20091022AAS
50	WDTN	DAYTON OH	309.2	LIC	BLCDT -20050629AAL
50	WISC-TV	MADISON WI	329.1	LIC	BLCDT -20050701ABU
51	WLAJ	LANSING MI	92.8	LIC	BLCDT -20040422ABI

Proposed station is beyond the site to
nearest cell evaluation distance

#####

Analysis of Interference to Affected Station 15

Analysis of current record

Channel	Call	City/State	Application Ref. No.
50	WEAO	AKRON OH	BLEDT -20091022AAS

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
49	WDLI-TV	CANTON OH	4.5	LIC	BLCDT -20101129ALX
49	WNWO-TV	TOLEDO OH	157.7	LIC	BLCDT -20120817ABH
49	WTAP-TV	PARKERSBURG WV	192.7	LIC	BLCDT -20120109ACS
50	WPXD-TV	ANN ARBOR MI	208.8	LIC	BLCDT -20120801ADY
50	WDTN	DAYTON OH	268.8	LIC	BLCDT -20050629AAL
50	WQLN	ERIE PA	168.5	LIC	BLEDT -20130603AKJ
50	WPCB-TV	GREENSBURG PA	173.8	LIC	BLCDT -20030409ABC
50	NEW	OAK HILL WV	349.9	APP	BPRM -20070724ADI
50	WOAY-TV	OAK HILL WV	349.9	LIC	BLCDT -20070426AAK
51	WTAE-TV	PITTSBURGH PA	178.2	LIC	BLCDT -20041014AEY
49	WNWO-TV	TOLEDO OH	157.7	PLN	DTVPLN -DTVP1748

Proposal causes no interference

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APPENDIX B
WNWO-TV - TOLEDO, OHIO
Channel 49, 105 kW, Page 14

Analysis of Interference to Affected Station 16

Analysis of current record

Channel	Call	City/State	Application Ref. No.
49	WNWO-TV	TOLEDO OH	BLCDT -20120817ABH

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
48	WAQP	SAGINAW MI	182.0	LIC	BLCDT -20060824ADS
48	WSYX	COLUMBUS OH	194.4	LIC	BLCDT -20100913ACJ
49	WDRB	LOUISVILLE KY	425.4	LIC	BLCDT -20091009AAQ
49	WNYO-TV	BUFFALO NY	421.7	CP	BPCDT -20090717AED
49	WNYO-TV	BUFFALO NY	421.7	LIC	BLCDT -20090619ABO
49	WDLI-TV	CANTON OH	162.0	LIC	BLCDT -20101129ALX
49	WTAP-TV	PARKERSBURG WV	298.7	LIC	BLCDT -20120109ACS
50	WPXD-TV	ANN ARBOR MI	90.8	LIC	BLCDT -20120801ADY
50	WEAO	AKRON OH	157.7	LIC	BLEDT -20091022AA

Total scenarios = 1

Result key: 8

Scenario 1 Affected station 16

Before Analysis

Results for: 49A OH TOLEDO	BLCDT	20120817ABH	LIC
HAAT 423.0 m, ATV ERP 105.0 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	2221264	20410.7	
not affected by terrain losses	2220460	20406.6	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	15392	282.1	
lost to ATV IX only	15392	282.1	
lost to all IX	15392	282.1	

Potential Interfering Stations Included in above Scenario 1

49A OH CANTON	BLCDT	20101129ALX	LIC
50A MI ANN ARBOR	BLCDT	20120801ADY	LIC

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