

ENGINEERING STATEMENT
RE DTV BROADCAST ENGINEERING DATA
APPLICATION FOR AUXILIARY OPERATION
ON BEHALF OF
GILMORE BROADCASTING CORPORATION
WEHT-DT, EVANSVILLE, INDIANA
CHANNEL 7 8.73 KW MAX DA ERP 298.7 METERS HAAT

AUGUST 2010

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

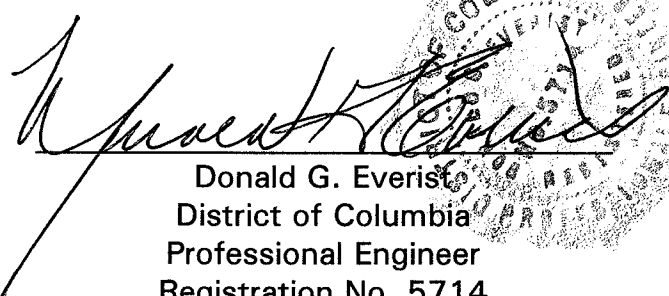
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;

That the attached engineering report was prepared by him or under his supervision and direction and

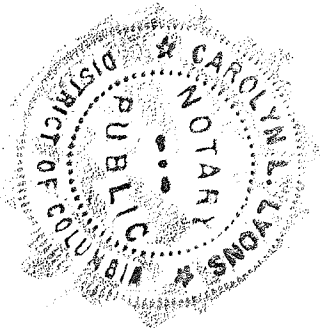
That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.


Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 20th day of August, 2010.


Notary Public

My Commission Expires: 2/28/2013



This engineering statement has been prepared in support of an application for an auxiliary operation on behalf of Gilmore Broadcasting Corporation, licensee of WEHT-DT, Evansville, Indiana. This application specifies the same facilities(FCC File No. BDSTA-20090410APM) for the phased transition facility that provided television (“DTV”) service until the currently licensed top-mounted digital TV antenna for WEHT(TV) was completed and operational.

WEHT(TV) was licensed to operate on NTSC television Channel 25 with a maximum visual ERP of 1200 kW and an antenna height above average terrain (“HAAT”) of 314 meters (1030 feet). WEHT-DT has been allocated DTV Channel 7 with facilities of 3.2 kW non-directional ERP and HAAT of 301 meters in the Final DTV Table of Allotments. WEHT-DT is licensed to operate DTV facilities of 12.5 kW non-directional ERP on Channel 7 at a HAAT of 316 meters. WEHT-DT proposes to operate auxiliary DTV facilities of 8.73 kW directional ERP on Channel 7 at a HAAT of 298.7 meters. The predicted 36 dBu contour will be entirely contained within the predicted 36 dBu contour of the WEHT-DT licensed operation.

The proposed auxiliary DTV antenna will be located on the same tower as WEHT-DT operates.

There is one AM station located within 3.2 km of the proposed WEHT-DT tower site. WSON(AM) licensed to Henderson, Kentucky transmitter height is located 3.1 km from WEHT tower site. WSON(AM) is licensed to operate on 860 KHz 0.5 kW DA-N unlimited. The installation of a side-mounted antenna is not expected to alter the electrical characteristics of the

WEHT tower at a frequency of 860 KHz. There are no FM and no other full-service DTV facilities within 100 meters of the proposed WEHT-DT tower site.

The auxiliary WEHT-DT antenna will be side-mounted on an existing tower having a total overall structure height above ground of 303.5 meters (995.7 feet). The existing transmitter site is located at 800 Marywood Drive, Henderson, Kentucky. The registration number for the existing tower is 1042028.

Since this is a side-mounted antenna on an existing tower, there is no change in overall height, FAA airspace approval is not required. Exhibit E-1 is a vertical sketch of the existing tower and the proposed transmitting antenna.

The geographic coordinates of the proposed site are as follows:

North Latitude: 37° 51' 56"

West Longitude: 87° 34' 04"

NAD-27

Equipment Data

Antenna:	ERI, Type ATW2G150-HSS-7 (or equivalent) antenna with 0.25° electrical beam tilt. The vertical plane pattern and other exhibits required by Section 73.625(c) are herein included as Exhibit E-2.
Transmission Line:	286.5 meters (940 ft) of ERI, Type HJ8-50, 3" Helix, 50 ohm or equivalent

Power Data

Transmitter output including filter	4.0 kW	6.02 dBk
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Transmission line efficiency/loss	65.71%	1.82 dB
Input power to the antenna	2.63 kW	4.20 dBk
Antenna power gain, Main Lobe	3.32	5.21 dB
Effective Radiated Power, Maximum	8.73 kW	9.41 dBk
<u>Elevation Data</u> (unchanged)		
Vertical dimension for Channel 7 antenna		4.74 meters 15.54 feet
Overall height above ground of the existing antenna structure (including beacon and lightning rod)		303.5 meters 995.7 feet
Center of radiation of Channel 7 side-mounted antenna above ground		275.8 meters 904.8 feet
Elevation of site above mean sea level		140.5 meters 461 feet
Center of radiation of Channel 7 side-mounted antenna above mean sea level		416.3 meters 1365.8 feet
Overall height above mean sea level of existing tower top-mounted antenna (including beacon)		444 meters 1456.7 feet
Antenna height above average terrain		298.7 meters 980 feet

Note: Slight height differences may result due to conversion to metric.

Interference Analysis

A study of predicted interference has not been performed since this proposed auxiliary operation's 36 dBu contour is totally contained within the licensed WEHT-DT operation's 36 dBu contour.

Coverage

The average elevation data for 3.2 to 16.1 km along each radial are based upon the 3-second NGDC profile data conforms very closely to the terrain information of that determined by using the 7.5 minute topographic maps on file at the Commission.

The F(50,90) DTV coverage contours has been computed from reference to the propagation data for Channels 7-13, as published by the FCC in Figure 10 and Figure 10a, Section 73.699 of the FCC Rules and Regulations.

Utilizing the formula in Section 73.625(b)(2) of the Rules for the effective heights, it is found that the depression angle, A_h , varies from 0.463 to 0.487 degrees. Since the relative vertical field is greater than 90% of the maximum at these depression angles, the maximum power was used in determining the distance to the DTV contour.

Table I includes the distances to the 43 and 36 dBu F(50,90) coverage contours, the average elevation 3.2 to 16.1 km, and the antenna height above average terrain for every 10 degrees in azimuth commencing with N 0° E, T. Exhibit E-3 provides the 43 and 36 dBu F(50,90) coverage contours and demonstrates that the community of license is covered by the F(50,90) 43 dBu contour. Also shown on Exhibit E-3 is the current 36 dBu F(50,90) contour which totally contains the proposed auxiliary operation's 36 dBu F(50,90) contour.

Total Radiofrequency Field Levels at WEHT-DT Tower Site

The total percentage of radiofrequency field levels ("RFF") can be calculated.

The total "worst-case" post-transition RFF contribution of the proposed auxiliary operation of WEHT-DT two meters above the ground at the base of the WEHT-DT tower is no more than 0.4% of the FCC guidelines for an uncontrolled environment which is no more than 0.1% of the proposed FCC guidelines for a controlled environment. The predicted RFF contribution is based on OET Bulletin No. 65, Edition 97-01, released August 1997, using an assumed downward relative field value of 0.41.

Authorized personnel and rigging contractors will be alerted to the potential zone of high field levels on the tower, and if necessary, the station will operate with reduced power or terminate the operation of the transmitter as appropriate when it is necessary for authorized personnel or contractors to perform work on the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

Environmental Assessment

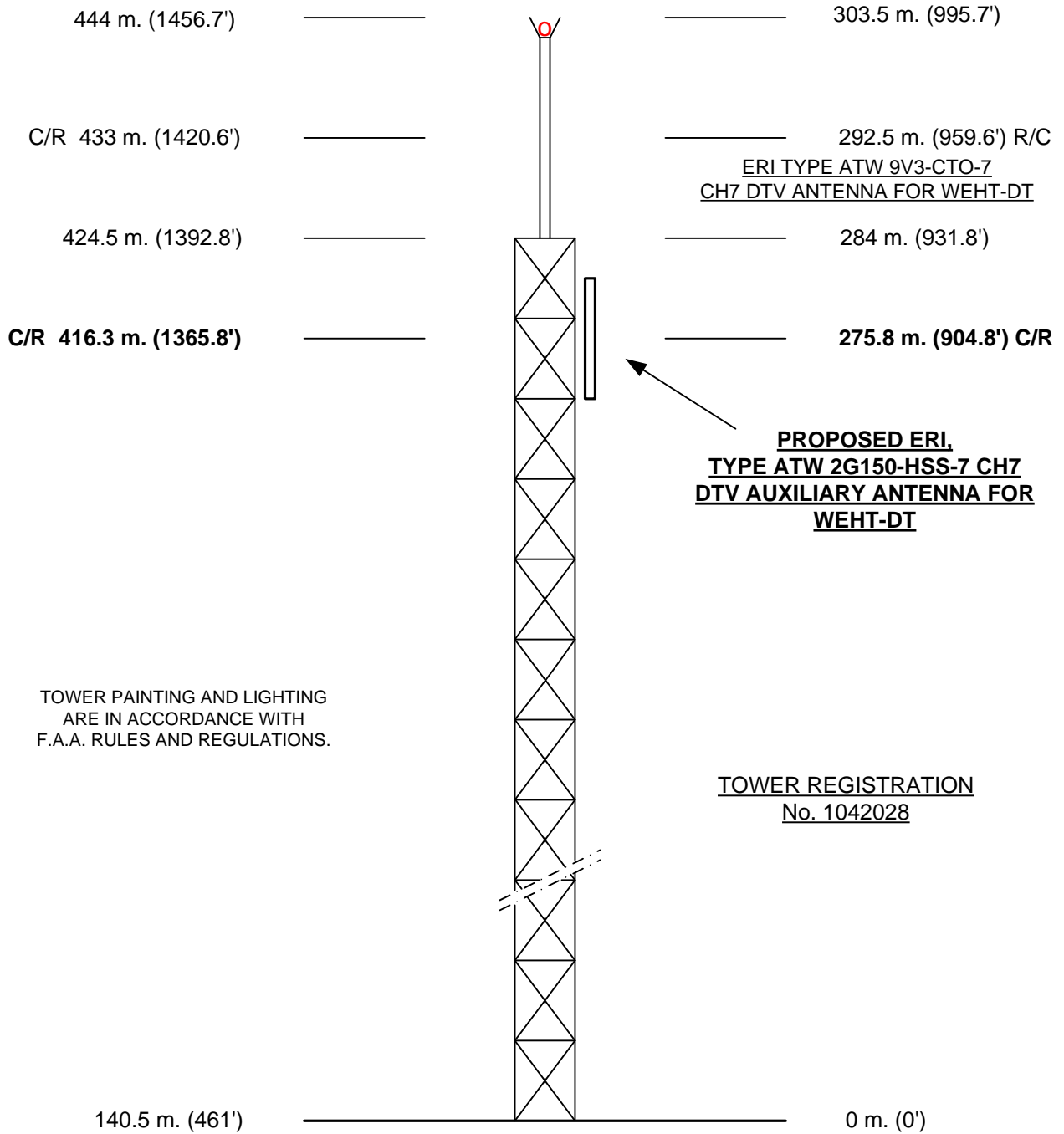
An environmental assessment ("EA") is categorically excluded under Section 1.1306 of the FCC Rules and Regulations as the tower was constructed prior to the requirements specified in WT Docket No. 03-128 and the licensee indicates:

- (a)(1) The existing tower is not located in an officially designated wilderness area.
- (a)(2) The existing tower is not located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities will not affect any listed threatened or endangered species or habitats.

- (a)(3)(ii) The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
- (a)(4) The proposed facilities located on a tower which was built prior to the adoption of WT Docket No. 03-128 and is grandfathered and has not affected any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The existing tower is not located near any known Indian religious sites.
- (a)(6) The existing tower is not located in a flood plain.
- (a)(7) The installation of the DTV facilities side-mounted on an existing guyed tower will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) It is not proposed to equip the tower with high intensity white lights unless required by the FAA.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A.

ABOVE MEAN SEA LEVEL

ABOVE GROUND



(NOT TO SCALE)

EXHIBIT E - 1
VERTICAL SKETCH
FOR THE PROPOSED AUXILIARY OPERATION OF
WEHT-DT, EVANSVILLE, INDIANA
AUGUST 2010

COHEN, DIPPELL and EVERIST, P.C. Consulting Engineers Washington, D.C.

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

WEHT-DT, EVANSVILLE, INDIANA

***PRELIMINARY SPECIFICATION FOR
TRASAR[®] HORIZONTALLY POLARIZED
COAXIAL SLOTTED ARRAY ANTENNA***

*Prepared for
WEHT-DT Channel 7 Evansville, IN
August 20, 2007*

**ANTENNA TYPE:
ATW2G150-HSS-7**

**SPECIFICATION NO :
KO082007-1741**



**PRELIMINARY SPECIFICATION FOR
TRASAR[®] HORIZONTALLY POLARIZED
COAXIAL SLOTTED ARRAY ANTENNA**

ELECTRICAL CHARACTERISTICS:

CHANNEL :	DTV:	7
FREQUENCY RANGE :	DTV:	174 - 180 MHz
AZIMUTH PATTERN NUMBER :		ATW-GS
ELEVATION PATTERN NUMBER :		ATW2V1H
AZIMUTH DIRECTIVITY :		1.66 (2.20 dBd)
ELEVATION DIRECTIVITY :		2.00 (3.01 dBd)
PEAK POWER GAIN :		3.32 (5.21 dBd)
GAIN AT HORIZONTAL :		3.32 (5.21 dBd)
ELECTRICAL BEAM TILT :		0.25 Degrees
INPUT POWER REQUIRED :		3.01 kW (4.79 dBk)
INPUT TYPE :		6 1/8-50 Ohm (3 1/8-50 Ohm (Adapter)
INPUT POWER (MAXIMUM) :		10 kW Average, 8VSB Digital
ANTENNA VSWR (MAXIMUM) :	DTV:	1.10 Over 6MHz Channel

PRELIMINARY SPECIFICATION FOR TRASAR[®] HORIZONTALLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA

MECHANICAL CHARACTERISTICS:

MOUNTING CONFIGURATION:

Top Mount

*(Tower Interface supplied and installed by others)

HEIGHT OF ANTENNA : 15.54 feet

HEIGHT OF CENTER OF RADIATION (B) : 7.77 feet

OVERALL HEIGHT (A) : (Includes four 4-foot Lightning Spurs) 18.54 feet

DEICING : Pressurized Radome Enclosure

RADOME DIAMETER (C): 16.40 inches, OD

RADOME COLOR : AVIATION ORANGE (Standard)

CLIMBING DEVICE : Not Applicable

CALCULATED WEIGHT (No Ice) : 2155.0 lbs

WINDLOAD DATA :	EIA/TIA-222-F²	CaAc :	No Ice	w/ Factored Radial Ice
			32.7 sq.ft.	42.0 sq.ft.
				2035.0 lbs

WEIGHT w/ FACTORED RADIAL ICE (0.5" ice):

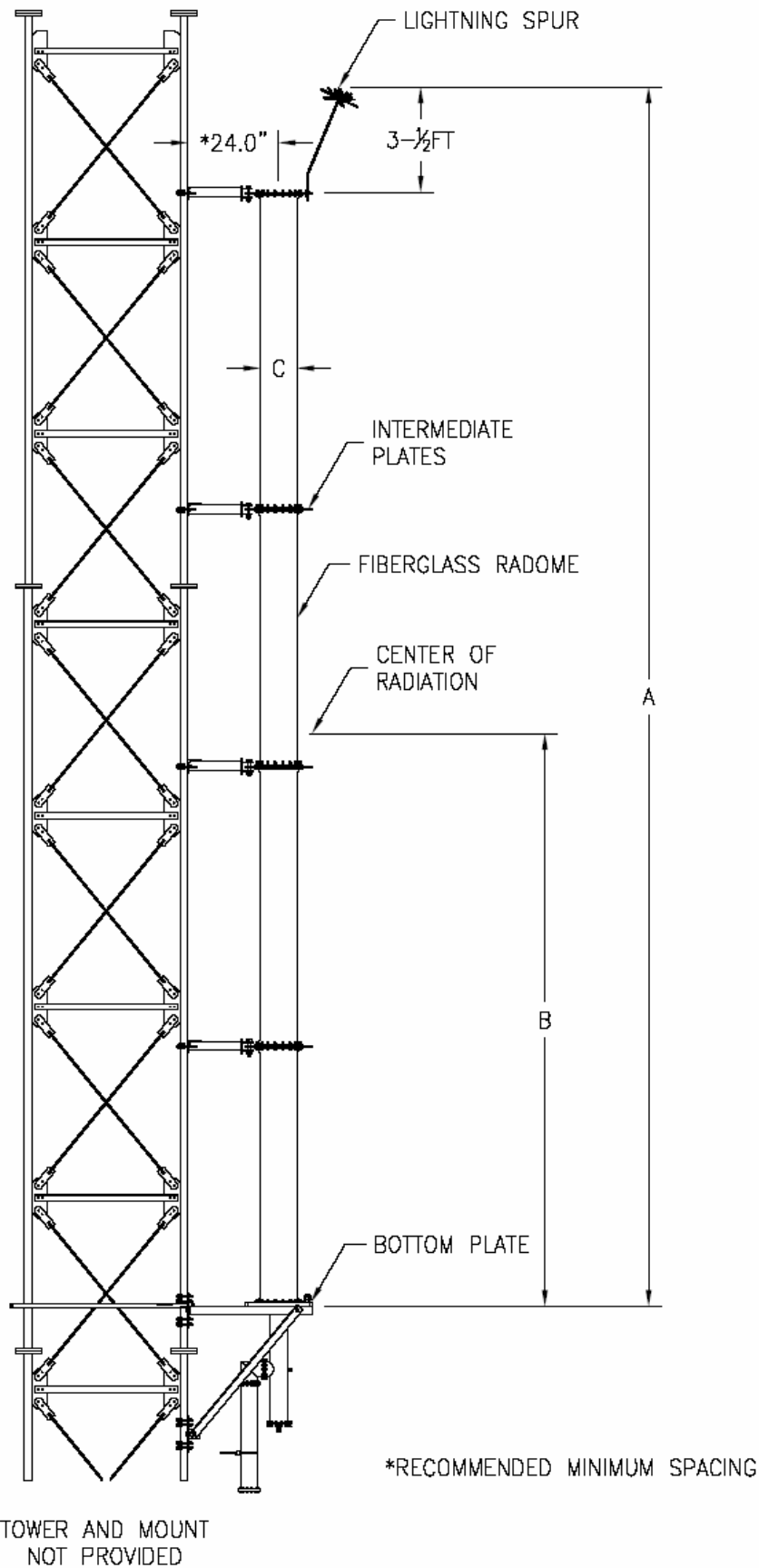
This antenna is designed to be supported by a structure that can resist the antenna base reactions and which provides a support that is rigid in the three translational and three rotational degrees of freedom.

1 Calculated weight is based on the **PRELIMINARY** design of the antenna. The actual weight of the antenna will be within $\pm 10\%$ of the calculated weight. The actual weight will be given in the technical manual that accompanies the antenna. This figure is for the antenna only and does not include the antenna input section.

2 Based on a wind speed of 70 miles per hour (MPH), a height above average terrain (HAAT) of 987 feet, and a height above ground level (HAGL) of 980 feet per EIA/TIA-222-F. Listed areas include beacon & lightning spurs.

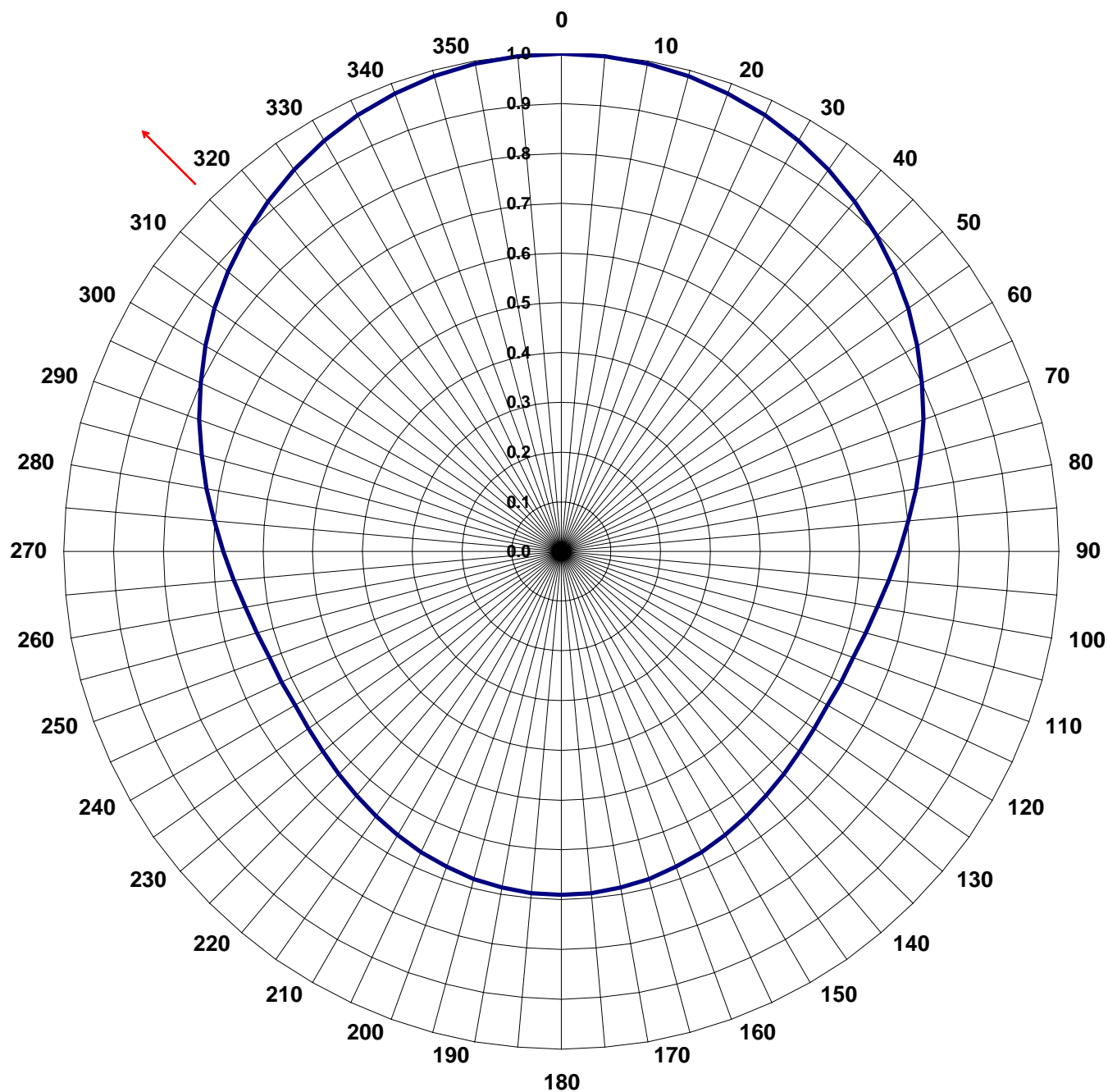
NOTE: Localized conditions may require higher wind speed specifications than TIA/EIA specifications. Check with local authorities to verify wind speed requirements.

TYPICAL MOUNTING CONFIGURATION SHOWN. ACTUAL CONFIGURATION MAY VARY.



AZIMUTH PATTERN**TYPE:****ATW-GS****Frequency:****7 (DTV)****Numeric****dB****Location:****Evansville, IN****Directivity:****1.66****2.20****Polarization:****Horizontal****Peak(s) at:**

Note: Pattern shape and directivity may vary with
channel and mounting configuration.



TABULATED DATA FOR AZIMUTH PATTERN

TYPE: ATW-GS

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
0	1.000	0.00	92	0.671	-3.47	184	0.689	-3.24	276	0.705	-3.04
2	1.000	0.00	94	0.664	-3.56	186	0.688	-3.25	278	0.714	-2.93
4	0.999	-0.01	96	0.657	-3.65	188	0.687	-3.26	280	0.724	-2.81
6	0.998	-0.02	98	0.651	-3.73	190	0.686	-3.27	282	0.733	-2.70
8	0.997	-0.03	100	0.645	-3.81	192	0.684	-3.30	284	0.743	-2.58
10	0.995	-0.04	102	0.640	-3.88	194	0.682	-3.32	286	0.753	-2.46
12	0.992	-0.07	104	0.635	-3.94	196	0.680	-3.35	288	0.764	-2.34
14	0.990	-0.09	106	0.631	-4.00	198	0.677	-3.39	290	0.774	-2.23
16	0.986	-0.12	108	0.627	-4.05	200	0.674	-3.43	292	0.784	-2.11
18	0.983	-0.15	110	0.624	-4.10	202	0.671	-3.47	294	0.795	-1.99
20	0.979	-0.18	112	0.622	-4.12	204	0.668	-3.50	296	0.805	-1.88
22	0.974	-0.23	114	0.620	-4.15	206	0.665	-3.54	298	0.815	-1.78
24	0.970	-0.26	116	0.619	-4.17	208	0.661	-3.60	300	0.826	-1.66
26	0.964	-0.32	118	0.618	-4.18	210	0.658	-3.64	302	0.836	-1.56
28	0.959	-0.36	120	0.618	-4.18	212	0.654	-3.69	304	0.846	-1.45
30	0.953	-0.42	122	0.619	-4.17	214	0.651	-3.73	306	0.855	-1.36
32	0.947	-0.47	124	0.620	-4.15	216	0.647	-3.78	308	0.865	-1.26
34	0.940	-0.54	126	0.621	-4.14	218	0.643	-3.84	310	0.874	-1.17
36	0.933	-0.60	128	0.623	-4.11	220	0.640	-3.88	312	0.884	-1.07
38	0.925	-0.68	130	0.625	-4.08	222	0.636	-3.93	314	0.893	-0.98
40	0.918	-0.74	132	0.627	-4.05	224	0.633	-3.97	316	0.901	-0.91
42	0.910	-0.82	134	0.630	-4.01	226	0.630	-4.01	318	0.910	-0.82
44	0.901	-0.91	136	0.633	-3.97	228	0.627	-4.05	320	0.918	-0.74
46	0.893	-0.98	138	0.636	-3.93	230	0.625	-4.08	322	0.925	-0.68
48	0.884	-1.07	140	0.640	-3.88	232	0.623	-4.11	324	0.933	-0.60
50	0.874	-1.17	142	0.643	-3.84	234	0.621	-4.14	326	0.940	-0.54
52	0.865	-1.26	144	0.647	-3.78	236	0.620	-4.15	328	0.947	-0.47
54	0.855	-1.36	146	0.651	-3.73	238	0.619	-4.17	330	0.953	-0.42
56	0.846	-1.45	148	0.654	-3.69	240	0.618	-4.18	332	0.959	-0.36
58	0.836	-1.56	150	0.658	-3.64	242	0.618	-4.18	334	0.964	-0.32
60	0.826	-1.66	152	0.661	-3.60	244	0.619	-4.17	336	0.970	-0.26
62	0.815	-1.78	154	0.665	-3.54	246	0.620	-4.15	338	0.974	-0.23
64	0.805	-1.88	156	0.668	-3.50	248	0.622	-4.12	340	0.979	-0.18
66	0.795	-1.99	158	0.671	-3.47	250	0.624	-4.10	342	0.983	-0.15
68	0.784	-2.11	160	0.674	-3.43	252	0.627	-4.05	344	0.986	-0.12
70	0.774	-2.23	162	0.677	-3.39	254	0.631	-4.00	346	0.990	-0.09
72	0.764	-2.34	164	0.680	-3.35	256	0.635	-3.94	348	0.992	-0.07
74	0.753	-2.46	166	0.682	-3.32	258	0.640	-3.88	350	0.995	-0.04
76	0.743	-2.58	168	0.684	-3.30	260	0.645	-3.81	352	0.997	-0.03
78	0.733	-2.70	170	0.686	-3.27	262	0.651	-3.73	354	0.998	-0.02
80	0.724	-2.81	172	0.687	-3.26	264	0.657	-3.65	356	0.999	-0.01
82	0.714	-2.93	174	0.688	-3.25	266	0.664	-3.56	358	1.000	0.00
84	0.705	-3.04	176	0.689	-3.24	268	0.671	-3.47	360	1.000	0.00
86	0.696	-3.15	178	0.690	-3.22	270	0.679	-3.36			
88	0.687	-3.26	180	0.690	-3.22	272	0.687	-3.26			
90	0.679	-3.36	182	0.690	-3.22	274	0.696	-3.15			

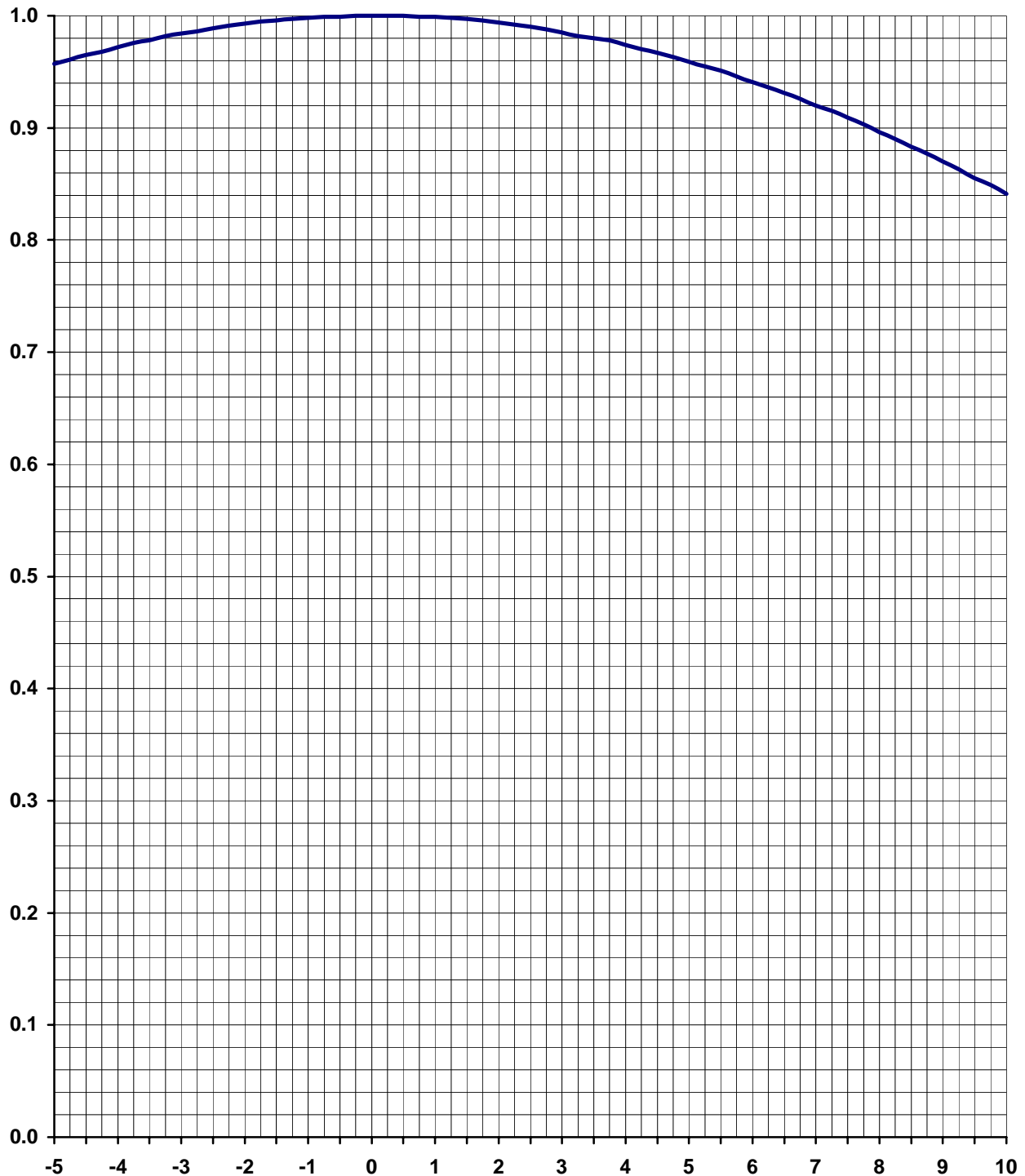
ELEVATION PATTERN

TYPE: **ATW2V1H**

Directivity:	Numeric	dBd
Main Lobe:	<u>2.00</u>	<u>3.01</u>
Horizontal:	<u>2.00</u>	<u>3.01</u>

Frequency: **7 (DTV)**

Location:	<u>Evansville, IN</u>
Beam Tilt:	<u>0.25</u>
Polarization:	<u>Horizontal</u>



TABULATED DATA FOR ELEVATION PATTERN

ATW2V1H

-5 to 10 degrees in 0.25 increments

10 to 90 degrees in 0.50 increments

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
-5.000	0.957	-0.38	6.75	0.926	-0.67	27.00	0.136	-17.33	50.50	0.407	-7.81	74.00	0.218	-13.23
-4.750	0.961	-0.35	7.00	0.920	-0.72	27.50	0.115	-18.79	51.00	0.408	-7.79	74.50	0.211	-13.51
-4.500	0.965	-0.31	7.25	0.915	-0.77	28.00	0.094	-20.54	51.50	0.409	-7.77	75.00	0.205	-13.76
-4.250	0.968	-0.28	7.50	0.909	-0.83	28.50	0.074	-22.62	52.00	0.409	-7.77	75.50	0.198	-14.07
-4.000	0.972	-0.25	7.75	0.903	-0.89	29.00	0.053	-25.51	52.50	0.409	-7.77	76.00	0.191	-14.38
-3.750	0.976	-0.21	8.00	0.896	-0.95	29.50	0.034	-29.37	53.00	0.409	-7.77	76.50	0.185	-14.66
-3.500	0.978	-0.19	8.25	0.890	-1.01	30.00	0.014	-37.08	53.50	0.409	-7.77	77.00	0.178	-14.99
-3.250	0.982	-0.16	8.50	0.883	-1.08	30.50	0.005	-46.02	54.00	0.408	-7.79	77.50	0.171	-15.34
-3.000	0.984	-0.14	8.75	0.877	-1.14	31.00	0.024	-32.40	54.50	0.407	-7.81	78.00	0.164	-15.70
-2.750	0.986	-0.12	9.00	0.870	-1.21	31.50	0.042	-27.54	55.00	0.405	-7.85	78.50	0.157	-16.08
-2.500	0.989	-0.10	9.25	0.863	-1.28	32.00	0.060	-24.44	55.50	0.403	-7.89	79.00	0.151	-16.42
-2.250	0.991	-0.08	9.50	0.855	-1.36	32.50	0.078	-22.16	56.00	0.401	-7.94	79.50	0.144	-16.83
-2.000	0.993	-0.06	9.75	0.849	-1.42	33.00	0.095	-20.45	56.50	0.399	-7.98	80.00	0.137	-17.27
-1.750	0.995	-0.04	10.00	0.841	-1.50	33.50	0.112	-19.02	57.00	0.397	-8.02	80.50	0.130	-17.72
-1.500	0.996	-0.03	10.50	0.825	-1.67	34.00	0.128	-17.86	57.50	0.394	-8.09	81.00	0.123	-18.20
-1.250	0.997	-0.03	11.00	0.809	-1.84	34.50	0.144	-16.83	58.00	0.391	-8.16	81.50	0.116	-18.71
-1.000	0.998	-0.02	11.50	0.792	-2.03	35.00	0.160	-15.92	58.50	0.388	-8.22	82.00	0.110	-19.17
-0.750	0.999	-0.01	12.00	0.775	-2.21	35.50	0.175	-15.14	59.00	0.384	-8.31	82.50	0.103	-19.74
-0.500	0.999	-0.01	12.50	0.757	-2.42	36.00	0.189	-14.47	59.50	0.381	-8.38	83.00	0.096	-20.35
-0.250	1.000	0.00	13.00	0.739	-2.63	36.50	0.203	-13.85	60.00	0.377	-8.47	83.50	0.089	-21.01
0.000	1.000	0.00	13.50	0.720	-2.85	37.00	0.217	-13.27	60.50	0.373	-8.57	84.00	0.082	-21.72
0.250	1.000	0.00	14.00	0.701	-3.09	37.50	0.230	-12.77	61.00	0.368	-8.68	84.50	0.075	-22.50
0.500	1.000	0.00	14.50	0.681	-3.34	38.00	0.242	-12.32	61.50	0.364	-8.78	85.00	0.069	-23.22
0.750	0.999	-0.01	15.00	0.661	-3.60	38.50	0.255	-11.87	62.00	0.360	-8.87	85.50	0.062	-24.15
1.000	0.999	-0.01	15.50	0.641	-3.86	39.00	0.266	-11.50	62.50	0.355	-9.00	86.00	0.055	-25.19
1.250	0.998	-0.02	16.00	0.620	-4.15	39.50	0.277	-11.15	63.00	0.350	-9.12	86.50	0.048	-26.38
1.500	0.997	-0.03	16.50	0.599	-4.45	40.00	0.288	-10.81	63.50	0.345	-9.24	87.00	0.041	-27.74
1.750	0.996	-0.03	17.00	0.578	-4.76	40.50	0.298	-10.52	64.00	0.340	-9.37	87.50	0.034	-29.37
2.000	0.994	-0.05	17.50	0.556	-5.10	41.00	0.308	-10.23	64.50	0.335	-9.50	88.00	0.027	-31.37
2.250	0.992	-0.07	18.00	0.535	-5.43	41.50	0.317	-9.98	65.00	0.329	-9.66	88.50	0.021	-33.56
2.500	0.990	-0.09	18.50	0.513	-5.80	42.00	0.326	-9.74	65.50	0.324	-9.79	89.00	0.014	-37.08
2.750	0.988	-0.10	19.00	0.491	-6.18	42.50	0.334	-9.53	66.00	0.318	-9.95	89.50	0.007	-43.10
3.000	0.985	-0.13	19.50	0.468	-6.60	43.00	0.342	-9.32	66.50	0.312	-10.12	90.00	0.000	---
3.250	0.982	-0.16	20.00	0.446	-7.01	43.50	0.350	-9.12	67.00	0.307	-10.26			
3.500	0.980	-0.18	20.50	0.424	-7.45	44.00	0.357	-8.95	67.50	0.301	-10.43			
3.750	0.978	-0.19	21.00	0.401	-7.94	44.50	0.363	-8.80	68.00	0.295	-10.60			
4.000	0.974	-0.23	21.50	0.379	-8.43	45.00	0.369	-8.66	68.50	0.289	-10.78			
4.250	0.970	-0.26	22.00	0.356	-8.97	45.50	0.375	-8.52	69.00	0.282	-11.00			
4.500	0.967	-0.29	22.50	0.333	-9.55	46.00	0.380	-8.40	69.50	0.276	-11.18			
4.750	0.963	-0.33	23.00	0.311	-10.14	46.50	0.384	-8.31	70.00	0.270	-11.37			
5.000	0.959	-0.36	23.50	0.289	-10.78	47.00	0.389	-8.20	70.50	0.264	-11.57			
5.250	0.955	-0.40	24.00	0.266	-11.50	47.50	0.392	-8.13	71.00	0.257	-11.80			
5.500	0.951	-0.44	24.50	0.244	-12.25	48.00	0.396	-8.05	71.50	0.251	-12.01			
5.750	0.946	-0.48	25.00	0.222	-13.07	48.50	0.399	-7.98	72.00	0.244	-12.25			
6.000	0.941	-0.53	25.50	0.200	-13.98	49.00	0.401	-7.94	72.50	0.238	-12.47			
6.250	0.936	-0.57	26.00	0.179	-14.94	49.50	0.404	-7.87	73.00	0.231	-12.73			
6.500	0.931	-0.62	26.50	0.157	-16.08	50.00	0.406	-7.83	73.50	0.225	-12.96			

TABLE I
COMPUTED COVERAGE DATA
FOR PROPOSED AUXILIARY OPERATION OF
WEHT-DT, EVANSVILLE, INDIANA
CHANNEL 7 8.73 KW DA ERP 298.7 METERS HAAT
AUGUST 2010

<u>Radial</u>	<u>Average*</u>	<u>Effective</u>	<u>Depression</u>		<u>Distance to Contour</u>	
<u>N ° E, T</u>	<u>Elevation</u>	<u>Height</u>	<u>Angle</u>	<u>ERP</u>	<u>43 dBu</u>	<u>36 dBu</u>
	meters	meters	degrees	kW	km	km
0	108.4	307.9	0.486	7.0	78.0	90.1
10	111.0	305.3	0.484	7.6	78.5	90.6
20	112.2	304.1	0.483	8.2	78.9	91.0
30	114.7	301.6	0.481	8.5	79.1	91.2
40	113.7	302.6	0.482	8.7	79.3	91.4
50	112.9	303.4	0.482	8.7	79.3	91.5
60	109.9	306.4	0.485	8.7	79.5	91.7
70	118.7	297.6	0.478	8.5	78.8	91.0
80	121.2	295.1	0.476	8.2	78.3	90.5
90	123.7	292.6	0.474	7.6	77.7	89.9
100	126.2	290.1	0.472	7.0	76.9	89.1
110	129.7	286.6	0.469	6.3	75.8	88.1
120	137.1	279.2	0.463	5.6	74.5	86.9
130	130.2	286.1	0.469	4.9	73.8	86.1
140	131.6	284.7	0.467	4.3	72.6	85.1
150	130.2	286.1	0.469	3.8	71.8	84.3
160	129.8	286.5	0.469	3.5	71.1	83.6
170	125.1	291.2	0.473	3.4	71.1	83.6
180	123.6	292.7	0.474	3.4	71.2	83.7
190	120.3	296.0	0.477	3.5	71.7	84.1
200	116.3	300.0	0.480	3.7	72.3	84.7
210	120.7	295.6	0.476	3.9	72.5	84.9
220	120.0	296.3	0.477	4.0	72.9	85.2
230	115.5	300.8	0.480	4.1	73.3	85.7
240	114.6	301.7	0.481	4.1	73.4	85.7
250	111.6	304.7	0.484	4.0	73.4	85.7
260	111.4	304.9	0.484	3.9	73.1	85.4
270	109.9	306.4	0.485	3.7	72.7	85.1
280	108.3	308.0	0.486	3.5	72.4	84.8
290	107.6	308.7	0.487	3.4	72.2	84.6

TABLE I
COMPUTED COVERAGE DATA
FOR PROPOSED AUXILIARY OPERATION OF
WEHT-DT, EVANSVILLE, INDIANA
CHANNEL 7 8.73 KW DA ERP 298.7 METERS HAAT
AUGUST 2010

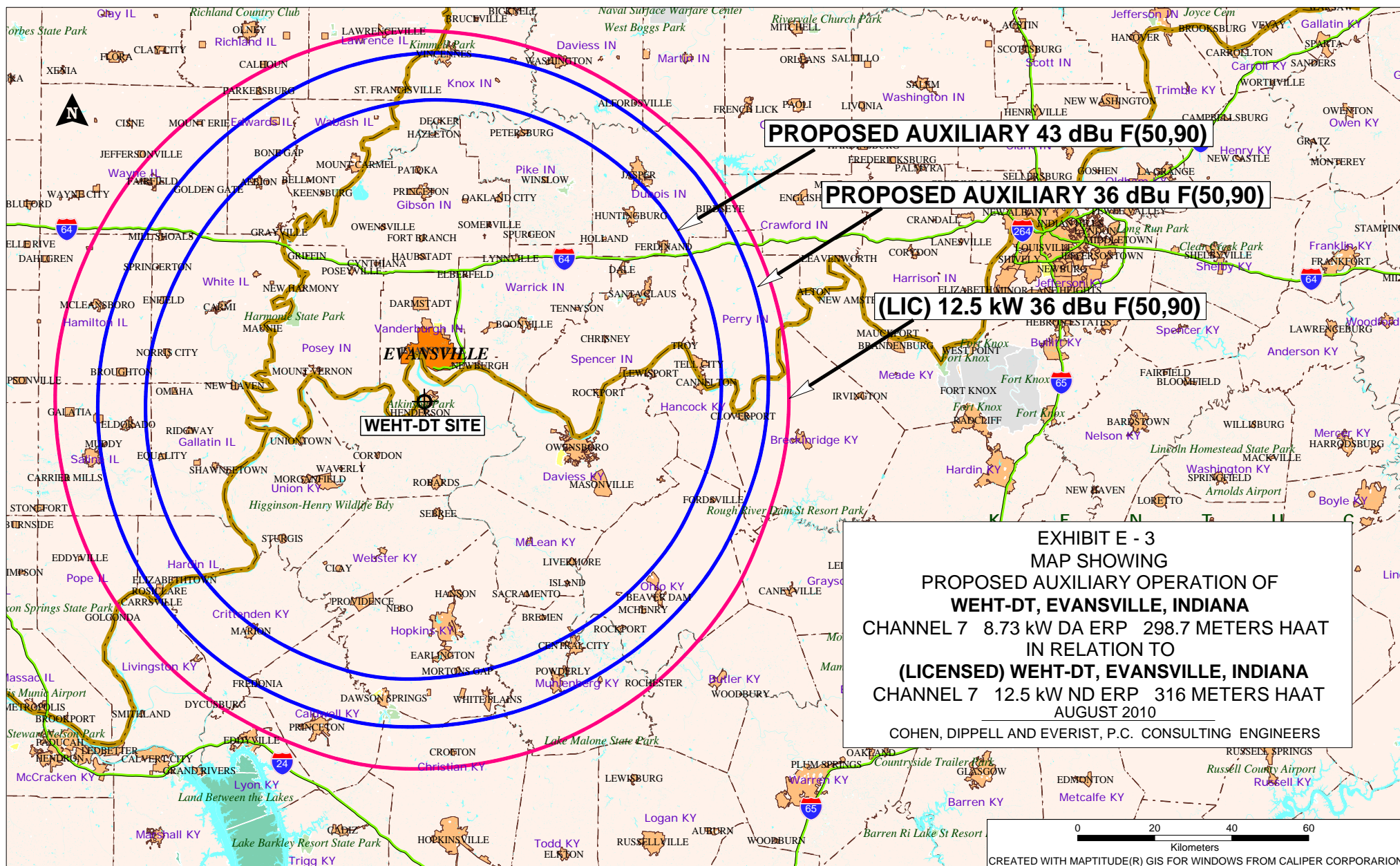
<u>Radial</u>	<u>Average*</u> <u>Elevation</u>	<u>Effective</u> <u>Height</u>	<u>Depression</u> <u>Angle</u>	<u>ERP</u>	<u>Distance to Contour</u>	
N ° E, T	meters	meters	degrees	kW	43 dBu km	36 dBu km
300	111.7	304.6	0.483	3.4	71.9	84.3
310	114.2	302.1	0.481	3.5	72.0	84.4
320	114.7	301.6	0.481	3.8	72.7	85.1
330	117.7	298.6	0.479	4.3	73.5	85.8
340	118.5	297.8	0.478	4.9	74.5	86.7
350	113.2	303.1	0.482	5.6	75.9	88.1

*Based on data from FCC 3-second data base.

DTV Channel 7 (174-180 MHz)
Average Elevation 3.2 to 16.1 km 117.6 meters AMSL
Center of Radiation 416.3 meters AMSL
Antenna Height Above Average Terrain 298.7 meters
Effective Radiated Power 8.73 kW (4.77 dBk) Max

North Latitude: 37° 51' 56"
West Longitude: 87° 34' 04"

(NAD-27)



SECTION III - D DTV Engineering

TECHNICAL SPECIFICATIONS Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel Number: DTV _____ Analog TV, if any _____
2. Zone: ☐ I ☐ II ☐ III
3. Antenna Location Coordinates: (NAD 27)
- _____ ° _____ ' _____ " ☐ N ☐ S Latitude
_____ ° _____ ' _____ " ☐ E ☐ W Longitude
4. Antenna Structure Registration Number: _____
- ☐ Not applicable ☐ FAA Notification Filed with FAA
5. Antenna Location Site Elevation Above Mean Sea Level: _____ meters
6. Overall Tower Height Above Ground Level: _____ meters
7. Height of Radiation Center Above Ground Level: _____ meters
8. Height of Radiation Center Above Average Terrain: _____ meters
9. Maximum Effective Radiated Power (average power): _____ kW
10. Antenna Specifications:
- a.

Manufacturer	Model
--------------	-------
- b. Electrical Beam Tilt: _____ degrees ☐ Not Applicable
- c. Mechanical Beam Tilt: _____ degrees toward azimuth _____ degrees True ☐ Not Applicable
- Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c).

Exhibit No.

- d. Polarization: ☐ Horizontal ☐ Circular ☐ Elliptical

TECH BOX

e. Directional Antenna Relative Field Values:

☐

Not applicable (Nondirectional)

Rotation: _____

☐

No rotation

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

If a directional antenna is proposed, the requirements of 47 C.F.R. Section 73.625(c) must be satisfied. **Exhibit required.**

Exhibit No.

11. Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616?

☐

Yes

☐

No

If "No," attach as an Exhibit justification therefore, including a summary of any related previously granted waivers.

Exhibit No.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if **Certification Checklist** Item 3 is answered "No.")

Exhibit No.

13. **Environmental Protection Act. Submit in an Exhibit** the following:

Exhibit No.

- a. If **Certification Checklist Item 2** is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.

By checking "Yes" to **Certification Checklist Item 2**, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radio frequency electromagnetic exposure in excess of FCC guidelines.

If **Certification Checklist Item 2** is answered "No," an Environmental Assessment as required by 47 C.F.R. Section 1.1311.

10. **Auction Authorization.** If the application is being submitted to obtain a construction permit for which the applicant was the winning bidder in an auction, then the applicant certifies, pursuant to 47 C.F.R. Section 73.5005(a), that it has attached an exhibit containing the information required by 47 C.F.R. Sections 1.2107(d), 1.2110(i), 1.2112(a) and 1.2112(b), if applicable.

☐ Yes ☐ No **WEHT-DT AUX**

An exhibit is required unless this question is inapplicable.

Exhibit No.

11. **Anti-Drug Abuse Act Certification.** Applicant certifies that neither applicant nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.

☐ Yes ☐ No

12. **Equal Employment Opportunity (EEO).** If the applicant proposes to employ five or more full-time employees, applicant certifies that it is filing simultaneously with this application a Model EEO Program Report on FCC Form 396-A.

☐ Yes ☐ No ☐ N/A

13. **Petition for Rulemaking/Counterproposal to Add New FM Channel to FM Table of Allotments.** If the application is being submitted concurrently with a Petition for Rulemaking or Counterproposal to Amend the FM Table of Allotments (47 C.F.R. Section 73.202) to add a new FM channel allotment, petitioner/counter-proponent certifies that, if the FM channel allotment requested is allotted, petitioner/counter-proponent will apply to participate in the auction of the channel allotment requested and specified in this application.

☐ Yes ☐ No ☐ N/A

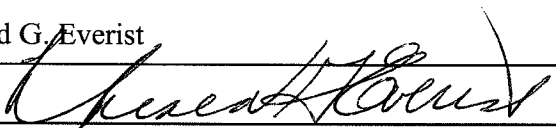
I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in 'good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing	Typed or Printed Title of Person Signing
Signature	Date

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name Donald G. Everist	Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 	Date August 20, 2010	
Mailing Address Cohen, Dippell and Everist, P.C., 1300 L Street, N.W., Suite 1100		
City Washington	State or Country (if foreign address) DC	ZIP Code 20005
Telephone Number (include area code) (202) 898-0111	E-Mail Address (if available) cde@attglobal.net	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).