

Technical Report W272DW Minor Modification

This technical report is submitted for a minor modification to W272DW at South Charleston, WV, FCC facility I.D. 142178. Changes in tower site, COR AGL, antenna and ERP are submitted for the translator to serve as a fill-in facility for WSCW(AM) 1410 kHz at South Charleston, WV, FCC facility I.D. 12076.

W272DW Modification Analysis:

An overlap study in exhibit E-1 shows the W272DW modification is within the WVSR-FM 274B second-adjacent protected contour. The +40 146.61 F(50-10) dBu interfering contour calculated within the protected contour (exhibit E-2) will not encompass any population, roads or buildings (exhibit E-3). Based on this showing, a waiver of Section 74.1204 is requested, in accordance with *Living Way Ministries, Inc.* (FCC 08-242). The 60 dBu contour overlaps the licensed 60 dBu contour and is contained within the primary WSCW(AM) 2.0 mV/m daytime contour (exhibit E-4).

Antenna System:

The W272DW modification will be located on the existing tower, ASR 1020434, at coordinates:

38 22 34.0N 081 42 12.0W NAD 83.

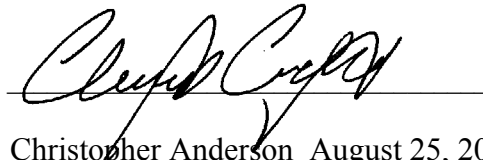
Two Scala CL-FM antennas skewed at 90 degrees and slanted 45 degrees (exhibit E-5) will be mounted at a COR AGL of 73 meters, 344 meters AMSL, 89 meters HAAT (exhibit E-6) and operate at 0.250 kW.

RF Exposure Calculation:

The RF contribution was calculated using FM Model (exhibit E-7). The RF is calculated to be $1.99 \mu\text{W}/\text{cm}^2$ at a distance of 19 meters from the base of the tower, which is below 5% of the $200 \mu\text{W}/\text{cm}^2$ maximum permissible for uncontrolled public exposure, allowing exclusion from consideration.

Conclusion:

It is concluded that the W272DW modification complies with all Commission rules and policies.

A handwritten signature in black ink, appearing to read 'Christopher Anderson', is written over a horizontal line.

Christopher Anderson August 25, 2020
andersce@bham.rr.com
© 2020 Anderson Associates

E-1 W272DW Mod. Overlap Study

REFERENCE 38 22 34.00 N. 81 42 12.00 W.		CH# 272D - 102.3 MHz, Pwr= 0.25 kW DA, HAAT= 89.0 M, COR= 344 M Average Protected F(50-50)= 12.16 km Standard Directional								DISPLAY DATES DATA 08-25-20 SEARCH 08-25-20	
CH CITY	CALL	TYPE STATE	ANT AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*	
274B Charleston	WVSR-FM	LIC ____ WV	124.1 304.1	3.72 BMLH19990222KD	38 21 26.30 81 40 04.50	50.000 123	5.7 391	63.4 Bristol Broadcasting Compa	-15.2*	-61.2*(1)	
272D South Charleston	W272DW	LIC _H_ WV	90.0 270.0	0.06 0000090131	38 22 34.00 81 42 09.30	0.010	281	---Reference--- L. M. Communications Of Ken			
272B1 Westwood	WVOB	LIC Z__ KY	274.4 93.9	72.81 BLH20131112BMB	38 25 24.20 82 32 12.50	15.000 131	112.2 347	48.9 Serge Martin Enterprises,	-42.4*	11.7	
270B Logan	WVOW-FM	LIC ____ WV	202.2 22.0	62.32 BLH20061019ADY	37 51 24.40 81 58 17.40	15.000 253	4.8 643	60.4 Logan Broadcasting Corp.	49.4	1.1	
272A Hinton	WMTD-FM	LIC ____ WV	138.0 318.4	98.63 BLH19960415KC	37 42 53.40 80 57 08.30	0.370 388	74.3 1086	25.7 Mountai nplex Medi a II, LLC	10.1	37.7	
218A Hurricane	WPJW	LIC D__ WV	285.8 105.6	28.25 BLED20090410AAI	38 26 41.30 82 00 53.50	3.000 92	18.8 324	5.1 Positive Alternative Radio	9.5R	18.8M	
272B1 Weston	WBTO	LIC ____ WV	58.6 239.4	139.92 BLH19950125KB	39 01 27.30 80 19 15.30	10.000 155	107.0 578	47.6 Ajj Corporation	21.6	52.5	
271B1 Marietta	WRVB	LIC ____ OH	3.6 183.7	105.62 BMLH20060531ANV	39 19 27.30 81 37 32.50	11.000 150	59.5 384	46.0 Ihm Licenses, LLC	37.4	46.3	

Terrain database is GLOBE 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
 In & Out distances between contours are shown at closest points. Reference zone= East Zone, Co to 3rd adjacent.
 All separation margins (if shown) include rounding.
 Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
 "*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
 « = Station meets FCC minimum distance spacing for its class.
 Reference station has protected zone issue: AM tower

(1) The +40 146.61 F(50-10) dBu contour within the WVSR(FM) 274B second adjacent protected contour (exhibit E-2) does not encompass any population, building or roads (exhibit E-3).

E-2 W272DW Mod. +40 146.6 F(50-10) dBu Calculation Within WVSR-FM 274B

W272DW South Charleston, WV, Showing Protection to WVSR-FM, Channel: 274
Geographic Coordinates: N. 38 22 34.00 W. 814212.00
74.1204(d) Study - Using GLOBE 30 SEC Terrain Database
Translator or LPFM Maximum Licensed ERP = 0.25 kW, Channel: 272
Translator or LPFM Antenna Height AG = 73 meters
W272DW Antenna Model = CL-FM composite

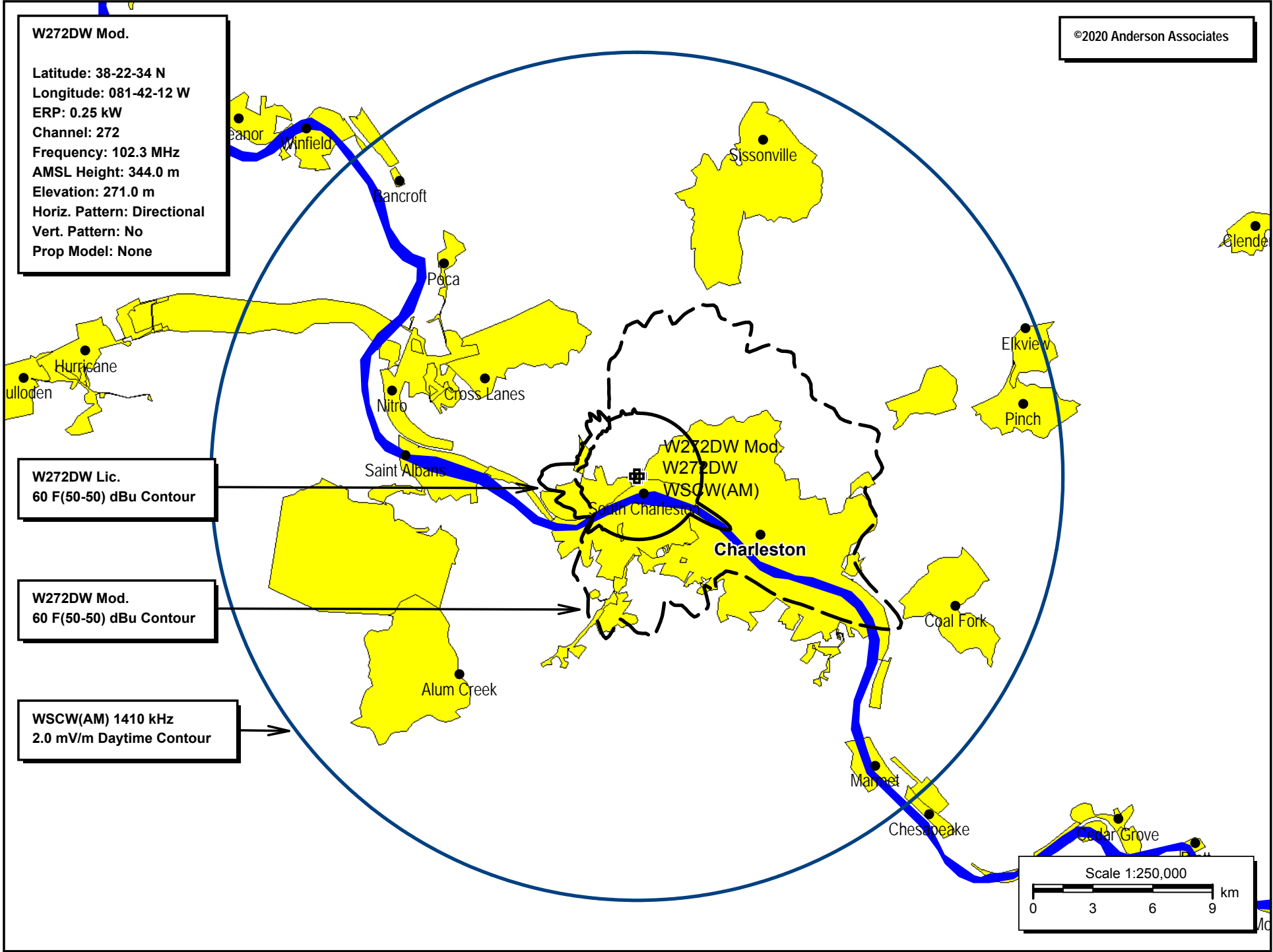
Protected Station's Contour = 106.6055 dBu
Translator's or LPFM's full Interference contour 146.6055

Review Azimuth = 100 Degrees True
Horizontal Relative Field at Review Azimuth = 1.000
Translator/LPFM ERP on the horizontal at Review Azimuth = 0.25 kW
Distance between stations = 3.7 km
Protected Station= WVSR-FM, 50 kW, 391 M meters COR AMSL

Depression Angle From Degree(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.2500	005.1844	005.1844	073.000
05.00	0.98	1.0	0.2401	005.0807	005.0613	072.557
10.00	0.95	1.0	0.2256	004.9251	004.8503	072.145
15.00	0.895	1.0	0.2003	004.6400	004.4819	071.799
20.00	0.82	1.0	0.1681	004.2512	003.9948	071.546
25.00	0.735	1.0	0.1351	003.8105	003.4535	071.390
30.00	0.645	1.0	0.1040	003.3439	002.8959	071.328
35.00	0.563	1.0	0.0791	002.9162	002.3888	071.327
40.00	0.47	1.0	0.0552	002.4366	001.8666	071.434
45.00	0.36	1.0	0.0324	001.8664	001.3197	071.680
50.00	0.25	1.0	0.0156	001.2961	000.8331	072.007
55.00	0.155	1.0	0.0060	000.8036	000.4609	072.342
60.00	0.085	1.0	0.0018	000.4407	000.2203	072.618
65.00	0.045	1.0	0.0005	000.2333	000.0986	072.789
70.00	0.02	1.0	0.0001	000.1037	000.0355	072.903
75.00	0.01	1.0	0.0000	000.0518	000.0134	072.950
80.00	0.01	1.0	0.0000	000.0518	000.0090	072.949
85.00	0.01	1.0	0.0000	000.0518	000.0045	072.948
90.00	0.01	1.0	0.0000	000.0518	000.0000	072.948

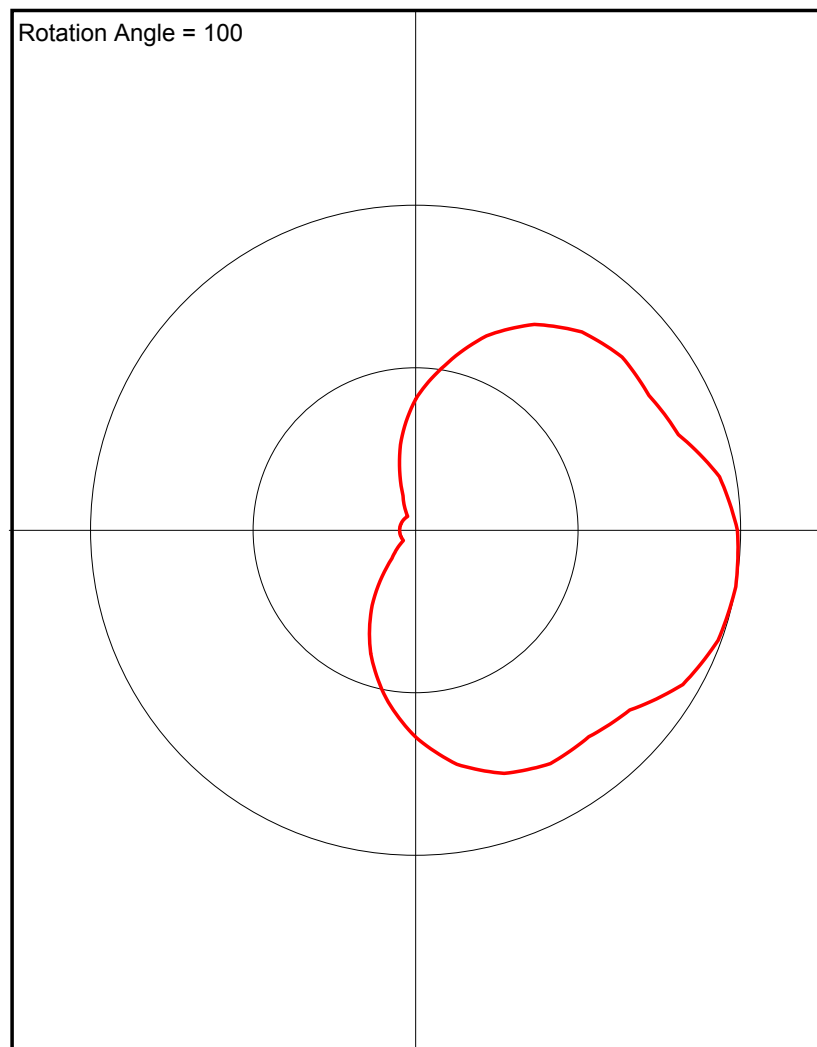


E-4 W272DW Mod. 60 dBu Contour Plot

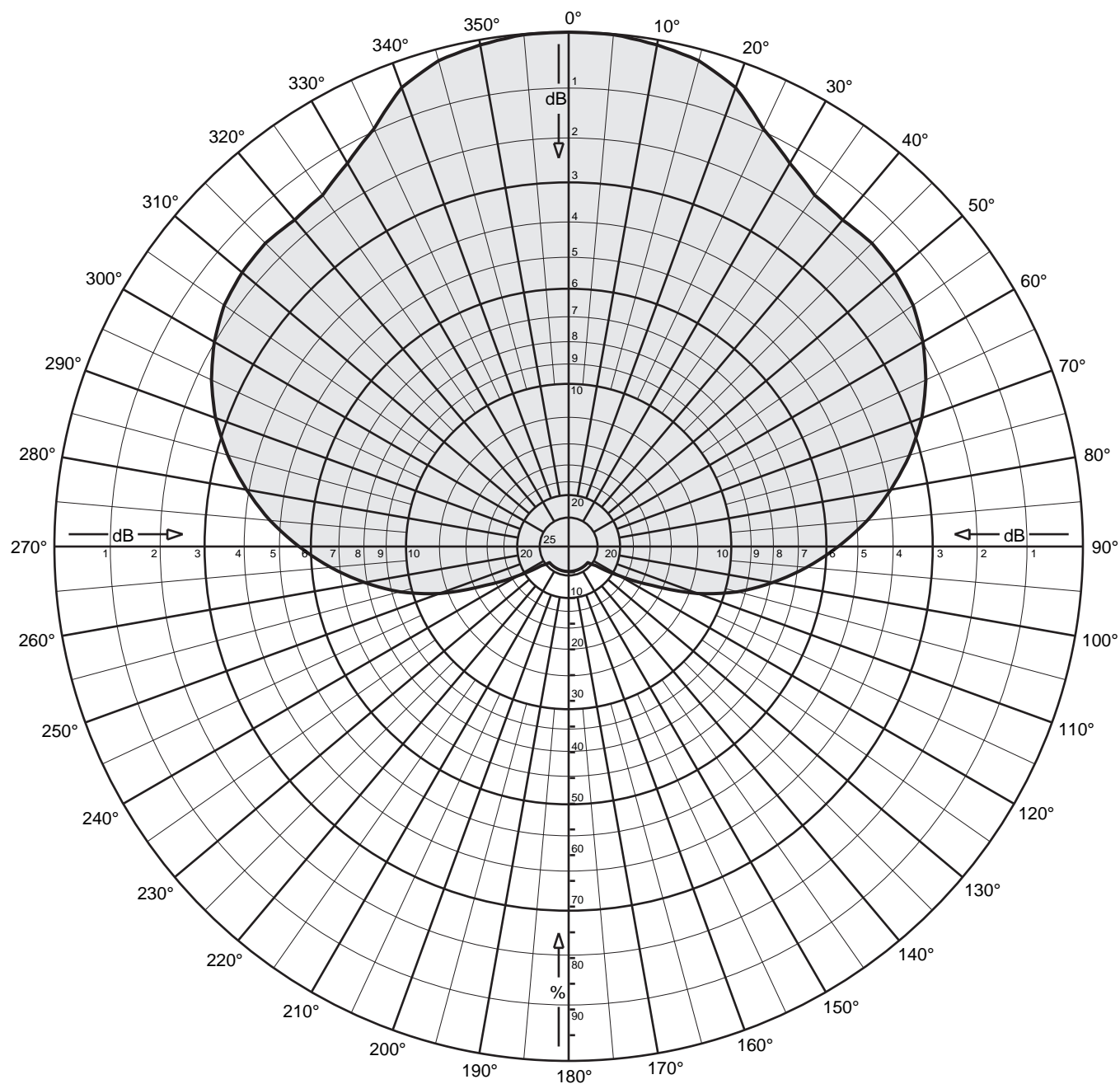


E-5 W272DW Mod. Antenna Pattern

Azimuth (deg)	Relative Field
0.0	0.403
10.0	0.514
20.0	0.636
30.0	0.731
40.0	0.796
50.0	0.829
60.0	0.829
70.0	0.86
80.0	0.949
90.0	0.99
100.0	1.0
110.0	0.99
120.0	0.949
130.0	0.86
140.0	0.829
150.0	0.829
160.0	0.796
170.0	0.731
180.0	0.636
190.0	0.524
200.0	0.403
210.0	0.267
220.0	0.113
230.0	0.049
240.0	0.049
250.0	0.049
260.0	0.049
270.0	0.049
280.0	0.049
290.0	0.049
300.0	0.049
310.0	0.049
320.0	0.049
330.0	0.049
340.0	0.113
350.0	0.267



E-5A W272DW Antenna Reference Pattern



Two CL-FM Log-periodic Antennas

Slant 45 Polarity

Skew 90 degrees

Gain: 2.3 dBd (x 1.7)

Vertical stacked 0.87 wavelength

Horizontal plane Pattern



Two CL-FM Log-periodic Antennas
 Slant 45 Polarity
 Skew 90 degrees
 Gain: 2.3 dBd (x 1.7)

Vertical stacked 0.87 wavelength
 Horizontal plane Pattern

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
0	1.000	0.00	2.30	1.70	45	0.834	-1.58	0.72	1.18
1	1.000	-0.00	2.30	1.70	46	0.833	-1.59	0.71	1.18
2	1.000	-0.00	2.30	1.70	47	0.832	-1.60	0.70	1.18
3	0.999	-0.01	2.29	1.70	48	0.831	-1.61	0.69	1.17
4	0.999	-0.01	2.29	1.70	49	0.830	-1.62	0.68	1.17
5	0.999	-0.01	2.29	1.69	50	0.829	-1.63	0.67	1.17
6	0.998	-0.02	2.28	1.69	51	0.827	-1.65	0.65	1.16
7	0.995	-0.04	2.26	1.68	52	0.824	-1.68	0.62	1.15
8	0.994	-0.05	2.25	1.68	53	0.822	-1.70	0.60	1.15
9	0.991	-0.07	2.23	1.67	54	0.820	-1.73	0.57	1.14
10	0.990	-0.08	2.22	1.67	55	0.818	-1.75	0.55	1.14
11	0.987	-0.11	2.19	1.66	56	0.813	-1.79	0.51	1.12
12	0.985	-0.13	2.17	1.65	57	0.809	-1.84	0.46	1.11
13	0.983	-0.15	2.15	1.64	58	0.804	-1.89	0.41	1.10
14	0.981	-0.17	2.13	1.63	59	0.800	-1.94	0.36	1.09
15	0.978	-0.20	2.10	1.62	60	0.796	-1.99	0.31	1.07
16	0.972	-0.25	2.05	1.60	61	0.790	-2.05	0.25	1.06
17	0.966	-0.30	2.00	1.59	62	0.784	-2.12	0.18	1.04
18	0.961	-0.35	1.95	1.57	63	0.778	-2.18	0.12	1.03
19	0.955	-0.40	1.90	1.55	64	0.772	-2.25	0.05	1.01
20	0.949	-0.45	1.85	1.53	65	0.766	-2.31	-0.01	1.00
21	0.939	-0.55	1.75	1.50	66	0.759	-2.39	-0.09	0.98
22	0.928	-0.65	1.65	1.46	67	0.752	-2.47	-0.17	0.96
23	0.917	-0.75	1.55	1.43	68	0.745	-2.56	-0.26	0.94
24	0.906	-0.85	1.45	1.40	69	0.738	-2.64	-0.34	0.93
25	0.896	-0.95	1.35	1.36	70	0.731	-2.72	-0.42	0.91
26	0.889	-1.03	1.27	1.34	71	0.722	-2.83	-0.53	0.88
27	0.882	-1.09	1.21	1.32	72	0.713	-2.94	-0.64	0.86
28	0.874	-1.16	1.14	1.30	73	0.704	-3.05	-0.75	0.84
29	0.868	-1.23	1.07	1.28	74	0.695	-3.16	-0.86	0.82
30	0.860	-1.31	0.99	1.26	75	0.686	-3.27	-0.97	0.80
31	0.855	-1.36	0.94	1.24	76	0.677	-3.39	-1.09	0.78
32	0.850	-1.41	0.89	1.23	77	0.666	-3.53	-1.23	0.75
33	0.845	-1.47	0.83	1.21	78	0.656	-3.66	-1.36	0.73
34	0.839	-1.52	0.78	1.20	79	0.646	-3.80	-1.50	0.71
35	0.834	-1.58	0.72	1.18	80	0.636	-3.93	-1.63	0.69
36	0.833	-1.59	0.71	1.18	81	0.625	-4.08	-1.78	0.66
37	0.832	-1.60	0.70	1.18	82	0.615	-4.22	-1.92	0.64
38	0.831	-1.61	0.69	1.17	83	0.604	-4.38	-2.08	0.62
39	0.830	-1.62	0.68	1.17	84	0.594	-4.53	-2.23	0.60
40	0.829	-1.63	0.67	1.17	85	0.583	-4.69	-2.39	0.58
41	0.830	-1.62	0.68	1.17	86	0.571	-4.86	-2.56	0.55
42	0.831	-1.61	0.69	1.17	87	0.560	-5.04	-2.74	0.53
43	0.832	-1.60	0.70	1.18	88	0.548	-5.23	-2.93	0.51
44	0.833	-1.59	0.71	1.18	89	0.536	-5.42	-3.12	0.49



Two CL-FM Log-periodic Antennas
 Slant 45 Polarity
 Skew 90 degrees
 Gain: 2.3 dBd (x 1.7)

Vertical stacked 0.87 wavelength
 Horizontal plane Pattern

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
90	0.524	-5.61	-3.31	0.47	135	0.049	-26.27	-23.97	0.00
91	0.512	-5.81	-3.51	0.45	136	0.049	-26.27	-23.97	0.00
92	0.500	-6.01	-3.71	0.43	137	0.049	-26.27	-23.97	0.00
93	0.488	-6.23	-3.93	0.40	138	0.049	-26.27	-23.97	0.00
94	0.477	-6.44	-4.14	0.39	139	0.049	-26.27	-23.97	0.00
95	0.464	-6.66	-4.36	0.37	140	0.049	-26.27	-23.97	0.00
96	0.452	-6.89	-4.59	0.35	141	0.049	-26.27	-23.97	0.00
97	0.440	-7.14	-4.84	0.33	142	0.049	-26.27	-23.97	0.00
98	0.428	-7.38	-5.08	0.31	143	0.049	-26.27	-23.97	0.00
99	0.415	-7.64	-5.34	0.29	144	0.049	-26.27	-23.97	0.00
100	0.403	-7.90	-5.60	0.28	145	0.049	-26.27	-23.97	0.00
101	0.390	-8.17	-5.87	0.26	146	0.049	-26.27	-23.97	0.00
102	0.378	-8.46	-6.16	0.24	147	0.049	-26.27	-23.97	0.00
103	0.365	-8.75	-6.45	0.23	148	0.049	-26.27	-23.97	0.00
104	0.353	-9.05	-6.75	0.21	149	0.049	-26.27	-23.97	0.00
105	0.340	-9.37	-7.07	0.20	150	0.049	-26.27	-23.97	0.00
106	0.326	-9.75	-7.45	0.18	151	0.049	-26.27	-23.97	0.00
107	0.311	-10.15	-7.85	0.16	152	0.049	-26.27	-23.97	0.00
108	0.296	-10.56	-8.26	0.15	153	0.049	-26.27	-23.97	0.00
109	0.282	-11.00	-8.70	0.13	154	0.049	-26.27	-23.97	0.00
110	0.267	-11.46	-9.16	0.12	155	0.049	-26.27	-23.97	0.00
111	0.249	-12.06	-9.76	0.11	156	0.049	-26.27	-23.97	0.00
112	0.232	-12.71	-10.41	0.09	157	0.049	-26.27	-23.97	0.00
113	0.214	-13.40	-11.10	0.08	158	0.049	-26.27	-23.97	0.00
114	0.196	-14.16	-11.86	0.07	159	0.049	-26.27	-23.97	0.00
115	0.178	-14.98	-12.68	0.05	160	0.049	-26.27	-23.97	0.00
116	0.165	-15.64	-13.34	0.05	161	0.049	-26.27	-23.97	0.00
117	0.152	-16.35	-14.05	0.04	162	0.049	-26.27	-23.97	0.00
118	0.139	-17.12	-14.82	0.03	163	0.049	-26.27	-23.97	0.00
119	0.126	-17.97	-15.67	0.03	164	0.049	-26.27	-23.97	0.00
120	0.113	-18.91	-16.61	0.02	165	0.049	-26.27	-23.97	0.00
121	0.104	-19.69	-17.39	0.02	166	0.049	-26.27	-23.97	0.00
122	0.094	-20.54	-18.24	0.01	167	0.049	-26.27	-23.97	0.00
123	0.084	-21.49	-19.19	0.01	168	0.049	-26.27	-23.97	0.00
124	0.074	-22.56	-20.26	0.01	169	0.049	-26.27	-23.97	0.00
125	0.065	-23.77	-21.47	0.01	170	0.049	-26.27	-23.97	0.00
126	0.062	-24.22	-21.92	0.01	171	0.049	-26.27	-23.97	0.00
127	0.058	-24.69	-22.39	0.01	172	0.049	-26.27	-23.97	0.00
128	0.055	-25.18	-22.88	0.01	173	0.049	-26.27	-23.97	0.00
129	0.052	-25.71	-23.41	0.00	174	0.049	-26.27	-23.97	0.00
130	0.049	-26.27	-23.97	0.00	175	0.049	-26.27	-23.97	0.00
131	0.049	-26.27	-23.97	0.00	176	0.049	-26.27	-23.97	0.00
132	0.049	-26.27	-23.97	0.00	177	0.049	-26.27	-23.97	0.00
133	0.049	-26.27	-23.97	0.00	178	0.049	-26.27	-23.97	0.00
134	0.049	-26.27	-23.97	0.00	179	0.049	-26.27	-23.97	0.00



Two CL-FM Log-periodic Antennas
 Slant 45 Polarity
 Skew 90 degrees
 Gain: 2.3 dBd (x 1.7)

Vertical stacked 0.87 wavelength
 Horizontal plane Pattern

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
180	0.049	-26.27	-23.97	0.00	225	0.049	-26.27	-23.97	0.00
181	0.049	-26.27	-23.97	0.00	226	0.049	-26.27	-23.97	0.00
182	0.049	-26.27	-23.97	0.00	227	0.049	-26.27	-23.97	0.00
183	0.049	-26.27	-23.97	0.00	228	0.049	-26.27	-23.97	0.00
184	0.049	-26.27	-23.97	0.00	229	0.049	-26.27	-23.97	0.00
185	0.049	-26.27	-23.97	0.00	230	0.049	-26.27	-23.97	0.00
186	0.049	-26.27	-23.97	0.00	231	0.052	-25.71	-23.41	0.00
187	0.049	-26.27	-23.97	0.00	232	0.055	-25.18	-22.88	0.01
188	0.049	-26.27	-23.97	0.00	233	0.058	-24.69	-22.39	0.01
189	0.049	-26.27	-23.97	0.00	234	0.062	-24.22	-21.92	0.01
190	0.049	-26.27	-23.97	0.00	235	0.065	-23.77	-21.47	0.01
191	0.049	-26.27	-23.97	0.00	236	0.074	-22.56	-20.26	0.01
192	0.049	-26.27	-23.97	0.00	237	0.084	-21.49	-19.19	0.01
193	0.049	-26.27	-23.97	0.00	238	0.094	-20.54	-18.24	0.01
194	0.049	-26.27	-23.97	0.00	239	0.104	-19.69	-17.39	0.02
195	0.049	-26.27	-23.97	0.00	240	0.113	-18.91	-16.61	0.02
196	0.049	-26.27	-23.97	0.00	241	0.126	-17.97	-15.67	0.03
197	0.049	-26.27	-23.97	0.00	242	0.139	-17.12	-14.82	0.03
198	0.049	-26.27	-23.97	0.00	243	0.152	-16.35	-14.05	0.04
199	0.049	-26.27	-23.97	0.00	244	0.165	-15.64	-13.34	0.05
200	0.049	-26.27	-23.97	0.00	245	0.178	-14.98	-12.68	0.05
201	0.049	-26.27	-23.97	0.00	246	0.196	-14.16	-11.86	0.07
202	0.049	-26.27	-23.97	0.00	247	0.214	-13.40	-11.10	0.08
203	0.049	-26.27	-23.97	0.00	248	0.232	-12.71	-10.41	0.09
204	0.049	-26.27	-23.97	0.00	249	0.249	-12.06	-9.76	0.11
205	0.049	-26.27	-23.97	0.00	250	0.267	-11.46	-9.16	0.12
206	0.049	-26.27	-23.97	0.00	251	0.282	-11.00	-8.70	0.13
207	0.049	-26.27	-23.97	0.00	252	0.296	-10.56	-8.26	0.15
208	0.049	-26.27	-23.97	0.00	253	0.311	-10.15	-7.85	0.16
209	0.049	-26.27	-23.97	0.00	254	0.326	-9.75	-7.45	0.18
210	0.049	-26.27	-23.97	0.00	255	0.340	-9.37	-7.07	0.20
211	0.049	-26.27	-23.97	0.00	256	0.353	-9.05	-6.75	0.21
212	0.049	-26.27	-23.97	0.00	257	0.365	-8.75	-6.45	0.23
213	0.049	-26.27	-23.97	0.00	258	0.378	-8.46	-6.16	0.24
214	0.049	-26.27	-23.97	0.00	259	0.390	-8.17	-5.87	0.26
215	0.049	-26.27	-23.97	0.00	260	0.403	-7.90	-5.60	0.28
216	0.049	-26.27	-23.97	0.00	261	0.415	-7.64	-5.34	0.29
217	0.049	-26.27	-23.97	0.00	262	0.428	-7.38	-5.08	0.31
218	0.049	-26.27	-23.97	0.00	263	0.440	-7.14	-4.84	0.33
219	0.049	-26.27	-23.97	0.00	264	0.452	-6.89	-4.59	0.35
220	0.049	-26.27	-23.97	0.00	265	0.464	-6.66	-4.36	0.37
221	0.049	-26.27	-23.97	0.00	266	0.477	-6.44	-4.14	0.39
222	0.049	-26.27	-23.97	0.00	267	0.488	-6.23	-3.93	0.40
223	0.049	-26.27	-23.97	0.00	268	0.500	-6.01	-3.71	0.43
224	0.049	-26.27	-23.97	0.00	269	0.512	-5.81	-3.51	0.45



Two CL-FM Log-periodic Antennas
 Slant 45 Polarity
 Skew 90 degrees
 Gain: 2.3 dBd (x 1.7)

Vertical stacked 0.87 wavelength
 Horizontal plane Pattern

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
270	0.524	-5.61	-3.31	0.47	315	0.834	-1.58	0.72	1.18
271	0.536	-5.42	-3.12	0.49	316	0.833	-1.59	0.71	1.18
272	0.548	-5.23	-2.93	0.51	317	0.832	-1.60	0.70	1.18
273	0.560	-5.04	-2.74	0.53	318	0.831	-1.61	0.69	1.17
274	0.571	-4.86	-2.56	0.55	319	0.830	-1.62	0.68	1.17
275	0.583	-4.69	-2.39	0.58	320	0.829	-1.63	0.67	1.17
276	0.594	-4.53	-2.23	0.60	321	0.830	-1.62	0.68	1.17
277	0.604	-4.38	-2.08	0.62	322	0.831	-1.61	0.69	1.17
278	0.615	-4.22	-1.92	0.64	323	0.832	-1.60	0.70	1.18
279	0.625	-4.08	-1.78	0.66	324	0.833	-1.59	0.71	1.18
280	0.636	-3.93	-1.63	0.69	325	0.834	-1.58	0.72	1.18
281	0.646	-3.80	-1.50	0.71	326	0.839	-1.52	0.78	1.20
282	0.656	-3.66	-1.36	0.73	327	0.845	-1.47	0.83	1.21
283	0.666	-3.53	-1.23	0.75	328	0.850	-1.41	0.89	1.23
284	0.677	-3.39	-1.09	0.78	329	0.855	-1.36	0.94	1.24
285	0.686	-3.27	-0.97	0.80	330	0.860	-1.31	0.99	1.26
286	0.695	-3.16	-0.86	0.82	331	0.868	-1.23	1.07	1.28
287	0.704	-3.05	-0.75	0.84	332	0.874	-1.16	1.14	1.30
288	0.713	-2.94	-0.64	0.86	333	0.882	-1.09	1.21	1.32
289	0.722	-2.83	-0.53	0.88	334	0.889	-1.03	1.27	1.34
290	0.731	-2.72	-0.42	0.91	335	0.896	-0.95	1.35	1.36
291	0.738	-2.64	-0.34	0.93	336	0.906	-0.85	1.45	1.40
292	0.745	-2.56	-0.26	0.94	337	0.917	-0.75	1.55	1.43
293	0.752	-2.47	-0.17	0.96	338	0.928	-0.65	1.65	1.46
294	0.759	-2.39	-0.09	0.98	339	0.939	-0.55	1.75	1.50
295	0.766	-2.31	-0.01	1.00	340	0.949	-0.45	1.85	1.53
296	0.772	-2.25	0.05	1.01	341	0.955	-0.40	1.90	1.55
297	0.778	-2.18	0.12	1.03	342	0.961	-0.35	1.95	1.57
298	0.784	-2.12	0.18	1.04	343	0.966	-0.30	2.00	1.59
299	0.790	-2.05	0.25	1.06	344	0.972	-0.25	2.05	1.60
300	0.796	-1.99	0.31	1.07	345	0.978	-0.20	2.10	1.62
301	0.800	-1.94	0.36	1.09	346	0.981	-0.17	2.13	1.63
302	0.804	-1.89	0.41	1.10	347	0.983	-0.15	2.15	1.64
303	0.809	-1.84	0.46	1.11	348	0.985	-0.13	2.17	1.65
304	0.813	-1.79	0.51	1.12	349	0.987	-0.11	2.19	1.66
305	0.818	-1.75	0.55	1.14	350	0.990	-0.08	2.22	1.67
306	0.820	-1.73	0.57	1.14	351	0.991	-0.07	2.23	1.67
307	0.822	-1.70	0.60	1.15	352	0.994	-0.05	2.25	1.68
308	0.824	-1.68	0.62	1.15	353	0.995	-0.04	2.26	1.68
309	0.827	-1.65	0.65	1.16	354	0.998	-0.02	2.28	1.69
310	0.829	-1.63	0.67	1.17	355	0.999	-0.01	2.29	1.69
311	0.830	-1.62	0.68	1.17	356	0.999	-0.01	2.29	1.70
312	0.831	-1.61	0.69	1.17	357	0.999	-0.01	2.29	1.70
313	0.832	-1.60	0.70	1.18	358	1.000	-0.00	2.30	1.70
314	0.833	-1.59	0.71	1.18	359	1.000	-0.00	2.30	1.70

E-6 W272DW Mod. HAAT Calculation

Antenna Height Above Average Terrain Calculations -- Results

Input Data

Latitude **38° 22' 34"** North
Longitude **81° 42' 12"** West (NAD 83)

Height of antenna radiation center above mean sea level: **344** meters AMSL

Number of Evenly Spaced Radials = **12** 0° is referenced to True North

Results

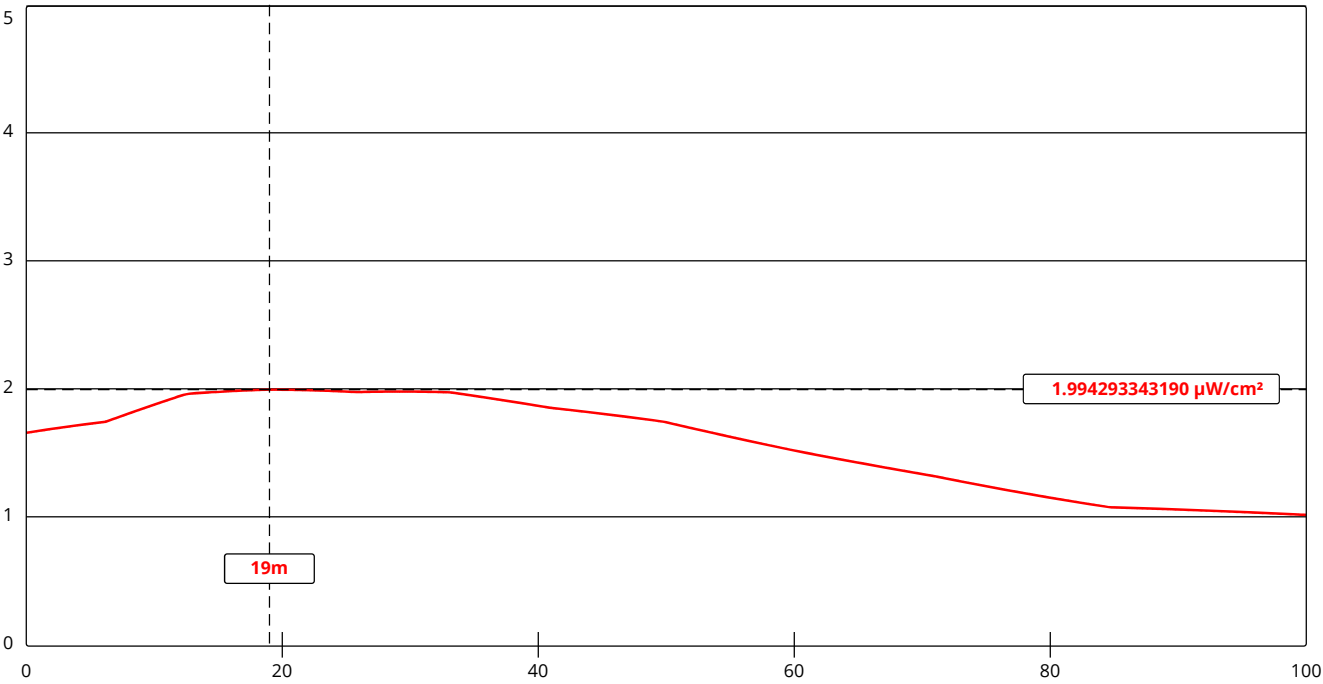
Calculated HAAT = **89 meters**

Antenna Height Above Average Terrain calculated
using 1 km [GLOBE terrain data](#)

Individual "Radial HAAT" Values, in meters

0°	89.5 m
30°	65.5 m
60°	69.1 m
90°	87.3 m
120°	146.5 m
150°	35.4 m
180°	58.7 m
210°	81.9 m
240°	103.9 m
270°	133.2 m
300°	94.9 m
330°	101.4 m

E-7 W272DW Mod. RF Calculation



Channel Selection	Channel 272 (102.3 MHz)		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other"		
Height (m)	73	Distance (m)	100
ERP-H (W)	250	ERP-V (W)	250
Num of Elements	1	Element Spacing (λ)	1
Num of Points	500		

E-8 W272DW Mod. Tower ASR

ASR Registration 1020434

Registration Detail

Reg Number	1020434	Status	Constructed
File Number	A0619289	Constructed	07/01/1985
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Commu

Location (in NAD83 Coordinates)

Lat/Long	38-22-34.0 N 081-42-12.0 W	Address	NEASE DRIVE NEAR
City, State	SOUTH CHARLESTON , WV		
Zip	25312	County	KANAWHA
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
271.0	86.9
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
357.9	86.0

Painting and Lighting Specifications

FCC Paragraphs 1, 3, 11, 21

FAA Notification

FAA Study	81-AEA-270-OE	FAA Issue Date	05/26/1981
-----------	---------------	----------------	------------

Owner & Contact Information

FRN	0007267784	Owner Entity Type	
Assignor FRN	0004168829	Assignor ID	L00134534

Owner

L.M. Communications of Kentucky, LLC	P: (859)233-1515
Attention To: Lynn Martin	F:
401 West Main Street, Suite 301	E:
Lexington , KY 40507	

Contact

Martin , Lynn	P: (859)233-1515
401 West Main Street, Suite 301	F:
Lexington , KY 40507	E:

Last Action Status

Status	Constructed	Received	01/26/2009
--------	-------------	----------	------------