

ENGINEERING EXHIBIT  
FURTHER MODIFICATION OF APPLICATION  
FOR CONSTRUCTION PERMIT  
FORT MYERS BROADCASTING COMPANY  
RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
FACILITY ID 48329  
1200 KHZ 50 KW-D 1 KW-N DA-2 U

Engineering Statement

The engineering exhibit consisting of this Statement and the attached Figures 1A and 2A, have been prepared on behalf of Fort Myers Broadcasting Company, licensee of AM broadcast station WPTK Pine Island Center, Florida, Facility ID 48329. This Exhibit responds to the Federal Communications Commission's letter of November 22, 2005, regarding the pending application for improved facilities, File Number BP-19880620AJ, by providing information concerning the nighttime directional antenna system. There is no change proposed in the nighttime directional operation, only a correction of the tower heights, which are listed in the FCC database as being 90 electrical degrees but are actually 85.6 degrees.

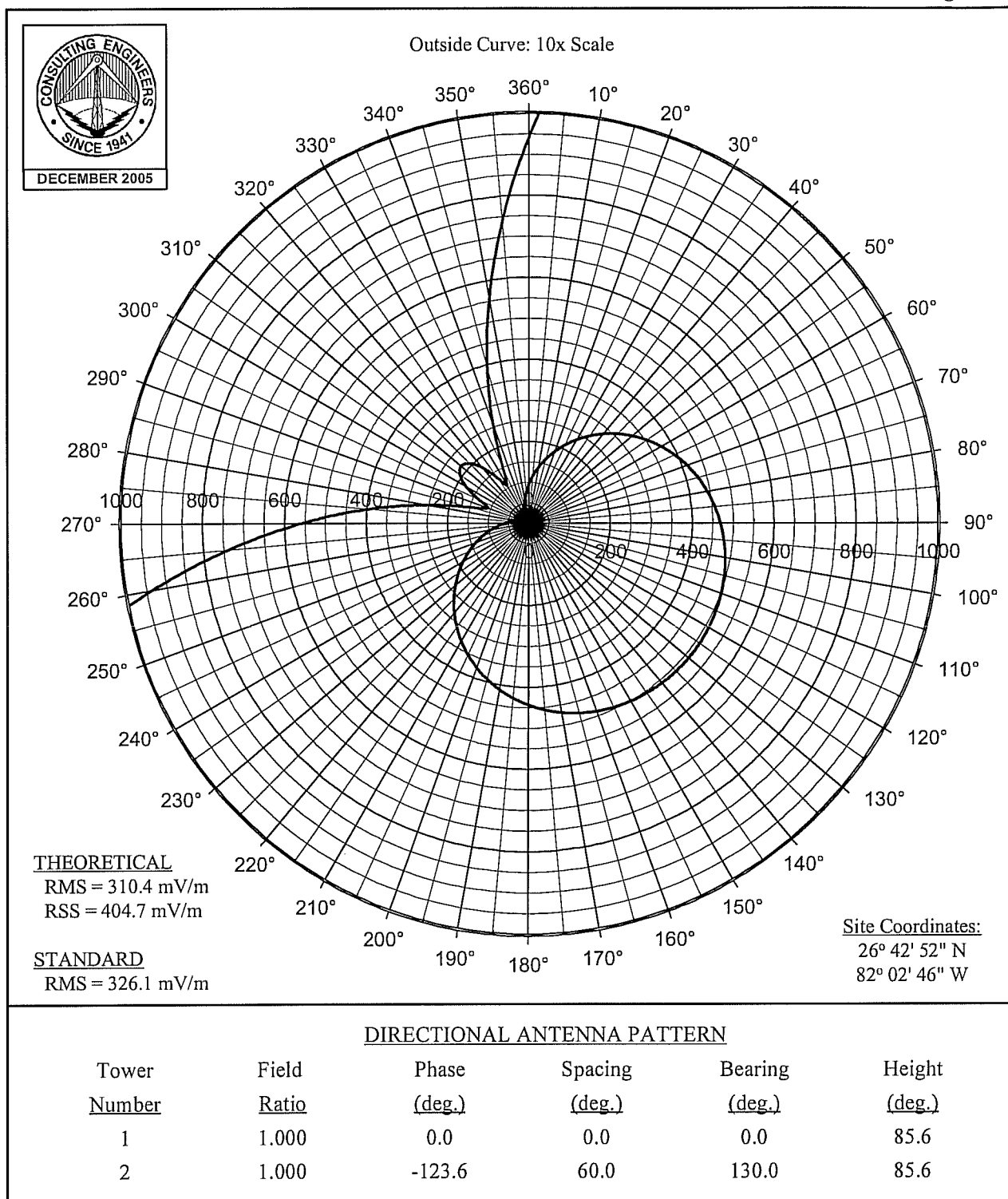
Figure 1A is a polar plot of the nighttime horizontal plane standard radiation pattern. Figure 2A is a tabulation of the pattern fields at vertical angles. No physical change has been made in the nighttime directional antenna system. Only tower heights are being corrected based on the height of the existing towers. The pattern information provided complies with the requirements of 47 CFR 73.150.



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Figure 1A



## PROPOSED NIGHTTIME HORIZONTAL PLANE STANDARD RADIATION PATTERN

RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 KHZ 50 KW-D 1 KW-N DA-2 U

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

TECHNICAL EXHIBIT  
FURTHER MODIFICATION OF APPLICATION  
FOR CONSTRUCTION PERMIT  
FORT MYERS BROADCASTING COMPANY  
RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
FACILITY ID 48329  
1200 KHZ 50 KW-D 1 KW-N DA-2 U

NIGHTTIME RADIATION PATTERN  
(Radiation Values at One Kilometer)

<u>Tower Number</u>	<u>Field Ratio</u>	<u>Phase (deg.)</u>	<u>Spacing (deg.)</u>	<u>Bearing (deg.)</u>	<u>Height (deg.)</u>
1	1.000	0.0	0.0	0.0	85.6
2	1.000	-123.6	60.0	130.0	85.6

<u>Input Power (kW)</u>	<u>Loop Loss (ohms)</u>	<u>Theo. RMS (mV/m)</u>	<u>Theo. RSS (mV/m)</u>	<u>Q Factor (mV/m)</u>	<u>Standard RMS (mV/m)</u>
1.0	1.0	310.4	404.7	10.1	326.1

Standard Radiation Pattern  
(at One Kilometer)

Azimuth Angle (deg)	Elevation Angle in Degrees						
	0 (mV/m)	5 (mV/m)	10 (mV/m)	15 (mV/m)	20 (mV/m)	25 (mV/m)	30 (mV/m)
0	94	94	95	96	97	98	99
5	115	115	115	115	115	115	114
10	138	137	137	136	135	133	130
15	161	161	160	158	155	151	146
20	185	185	183	180	176	170	164
25	210	209	207	203	197	190	181
30	235	234	231	225	218	209	199
35	260	258	255	248	240	229	216
40	284	283	278	271	261	248	234
45	308	306	301	293	281	267	251
50	331	329	323	314	301	285	267
55	353	351	345	334	320	303	283
60	374	372	365	353	338	319	298
65	393	391	384	371	355	335	312
70	412	409	401	388	371	350	325
75	428	425	417	404	385	363	338
80	443	440	432	418	399	375	349
85	456	453	445	430	410	386	359
90	468	465	456	441	421	396	368
95	479	475	466	451	430	405	375
100	487	484	475	459	438	412	382
105	495	491	482	466	444	418	388
110	501	497	487	471	450	423	392
115	505	502	492	476	454	427	396
120	508	505	495	479	457	430	398
125	510	507	497	481	458	431	400
130	511	507	497	481	459	432	400
135	510	507	497	481	458	431	400
140	508	505	495	479	457	430	398
145	505	502	492	476	454	427	396
150	501	497	487	471	450	423	392
155	495	491	482	466	444	418	388
160	487	484	475	459	438	412	382
165	479	475	466	451	430	405	375
170	468	465	456	441	421	396	368
175	456	453	445	430	410	386	359

Standard Radiation Pattern  
(at One Kilometer)

Azimuth Angle (deg)	Elevation Angle in Degrees						
	35	40	45	50	55	60	65
	(mV/m)	(mV/m)	(mV/m)	(mV/m)	(mV/m)	(mV/m)	(mV/m)
0	99	98	96	93	88	82	73
5	112	110	106	101	94	86	76
10	126	122	116	109	100	91	79
15	141	134	126	117	107	95	83
20	156	147	137	126	114	100	86
25	171	160	148	135	120	106	90
30	186	173	159	143	127	111	93
35	202	186	170	152	134	116	97
40	217	200	181	161	141	121	101
45	232	212	192	170	148	126	104
50	247	225	202	179	155	131	108
55	261	237	212	187	161	136	111
60	274	248	222	195	168	141	115
65	287	259	231	202	173	145	118
70	298	270	240	209	179	149	121
75	309	279	248	216	184	153	124
80	319	288	255	222	189	157	126
85	328	296	262	228	194	161	129
90	336	303	268	233	198	164	131
95	343	309	273	237	201	166	133
100	349	314	278	241	204	169	135
105	354	319	282	244	207	171	136
110	359	322	285	247	209	172	137
115	362	325	287	249	211	174	138
120	364	327	289	250	212	175	139
125	365	328	290	251	213	175	139
130	366	329	290	251	213	175	140
135	365	328	290	251	213	175	139
140	364	327	289	250	212	175	139
145	362	325	287	249	211	174	138
150	359	322	285	247	209	172	137
155	354	319	282	244	207	171	136
160	349	314	278	241	204	169	135
165	343	309	273	237	201	166	133
170	336	303	268	233	198	164	131
175	328	296	262	228	194	161	129

Standard Radiation Pattern  
(at One Kilometer)

Azimuth	Elevation Angle in Degrees						
Angle	0	5	10	15	20	25	30
(deg)	(mV/m)	(mV/m)	(mV/m)	(mV/m)	(mV/m)	(mV/m)	(mV/m)
180	443	440	432	418	399	375	349
185	428	425	417	404	385	363	338
190	412	409	401	388	371	350	325
195	393	391	384	371	355	335	312
200	374	372	365	353	338	319	298
205	353	351	345	334	320	303	283
210	331	329	323	314	301	285	267
215	308	306	301	293	281	267	251
220	284	283	278	271	261	248	234
225	260	258	255	248	240	229	216
230	235	234	231	225	218	209	199
235	210	209	207	203	197	190	181
240	185	185	183	180	176	170	164
245	161	161	160	158	155	151	146
250	138	137	137	136	135	133	130
255	115	115	115	115	115	115	114
260	93.7	94.0	94.7	95.7	96.9	98.0	98.8
265	73.9	74.3	75.5	77.5	79.8	82.4	84.7
270	55.7	56.3	58.0	60.7	64.1	67.9	71.8
275	39.5	40.2	42.3	45.7	50.0	55.0	60.1
280	25.6	26.4	28.8	32.6	37.7	43.6	49.8
285	15.0	15.7	17.9	21.8	27.3	33.9	41.0
290	10.6	10.6	11.3	14.0	19.1	26.0	33.8
295	13.4	12.7	11.0	10.3	13.5	20.0	28.1
300	17.7	16.6	13.9	10.7	10.6	16.0	24.2
305	20.6	19.5	16.4	12.1	9.8	13.8	21.8
310	21.7	20.5	17.3	12.8	9.7	13.1	21.0
315	20.6	19.5	16.4	12.1	9.8	13.8	21.8
320	17.7	16.6	13.9	10.7	10.6	16.0	24.2
325	13.4	12.7	11.0	10.3	13.5	20.0	28.1
330	10.6	10.6	11.3	14.0	19.1	26.0	33.8
335	15.0	15.7	17.9	21.8	27.3	33.9	41.0
340	25.6	26.4	28.8	32.6	37.7	43.6	49.8
345	39.5	40.2	42.3	45.7	50.0	55.0	60.1
350	55.7	56.3	58.0	60.7	64.1	67.9	71.8
355	73.9	74.3	75.5	77.5	79.8	82.4	84.7

Standard Radiation Pattern  
(at One Kilometer)

Azimuth Angle (deg)	Elevation Angle in Degrees						
	35 (mV/m)	40 (mV/m)	45 (mV/m)	50 (mV/m)	55 (mV/m)	60 (mV/m)	65 (mV/m)
180	319	288	255	222	189	157	126
185	309	279	248	216	184	153	124
190	298	270	240	209	179	149	121
195	287	259	231	202	173	145	118
200	274	248	222	195	168	141	115
205	261	237	212	187	161	136	111
210	247	225	202	179	155	131	108
215	232	212	192	170	148	126	104
220	217	200	181	161	141	121	101
225	202	186	170	152	134	116	97.1
230	186	173	159	143	127	111	93.5
235	171	160	148	135	120	106	89.9
240	156	147	137	126	114	100	86.3
245	141	134	126	117	107	95.5	82.8
250	126	122	116	109	100	90.6	79.4
255	112	110	106	101	94.1	86.0	76.2
260	99.0	98.3	96.4	93.1	88.2	81.6	73.2
265	86.6	87.7	87.5	86.0	82.7	77.5	70.3
270	75.3	77.9	79.4	79.4	77.6	73.8	67.7
275	65.0	69.1	72.1	73.5	73.0	70.4	65.3
280	55.9	61.3	65.6	68.3	68.9	67.3	63.2
285	48.1	54.6	60.0	63.7	65.4	64.7	61.4
290	41.7	49.1	55.4	60.0	62.5	62.6	59.9
295	36.6	44.7	51.7	57.0	60.2	60.9	58.7
300	33.0	41.6	49.1	54.9	58.6	59.6	57.8
305	30.9	39.7	47.5	53.6	57.6	58.9	57.3
310	30.2	39.1	47.0	53.2	57.2	58.6	57.1
315	30.9	39.7	47.5	53.6	57.6	58.9	57.3
320	33.0	41.6	49.1	54.9	58.6	59.6	57.8
325	36.6	44.7	51.7	57.0	60.2	60.9	58.7
330	41.7	49.1	55.4	60.0	62.5	62.6	59.9
335	48.1	54.6	60.0	63.7	65.4	64.7	61.4
340	55.9	61.3	65.6	68.3	68.9	67.3	63.2
345	65.0	69.1	72.1	73.5	73.0	70.4	65.3
350	75.3	77.9	79.4	79.4	77.6	73.8	67.7
355	86.6	87.7	87.5	86.0	82.7	77.5	70.3