PROPOSED READING ANTENNA PATTERN HORIZONTAL POLARIZATION

Azimuth (deg.)	Relative Field	Free Space Field* (mV/m at 1 mile)	ERP (dBk)
50	0.3360	56.70	-7.70
51	0.3445	58.13	-7.48
52	0.3531	59.59	-7.27
53	0.3614	60.99	-7.07
54	0.3689	62.25	-6.89
55	0.3751	63.30	-6.74
56	0.3801	64.14	-6.63
57	0.3848	64.93	-6.52
58	0.3905	65.90	-6.40
59	0.3984	67.23	-6.22
60	0.4094	69.09	-5.98
61	0.4230	71.38	-5.70
62	0.4357	73.52	5.44
63	0.4450	75.09	-5.26
64	0.4525	76.36	-5.12
65	0.4616	77.89	-4.94
66	0.4724	79.72	-4.74
67	0.4834	81.57	-4.54
68	0.4946	83.46	-4.34
69	0.5061	85.40	-4.14
70	0.5179	87.40	-3.94
71	0.5300	89.44	-3.74
72	0.5423	91.51	-3.54
73	0.5550	93.66	-3.34
74	0.5679	95.83	-3.14
75	0.5811	98.06	-2.94
76	0.5947	100.36	-2.74
77	0.6085	102.68	-2.54
78	0.6227	105.08	-2.34
79	0.6372	107.53	-2.14
80	0.6520	110.02	-1.94
81	0.6439	108.66	-2.05
82	0.6292	106.18	-2.25
83	0.6149	103.76	-2.45
84	0.6009	101.40	-2.65
85	0.5872	99.09	-2.85
86	0.5802	97.91	-2.96
87	0.5750	97.03	-3.03
88	0.5718	96.49	-3.08
89	0.5702	96.22	-3.11
90	0.5694	96.09	-3.12
91	0.5684	95.92	-3.13
92	0.5665	95.60	-3.16
93	0.5626	94.94	-3.22
94	0.5573	94.04	-3.31
95	0.5516	93.08	-3.40
96	0.5466	92.24	-3.47
97	0.5431	91.65	-3.53
98	0.5411	91.31	-3.56
99	0.5401	91.14	-3.58
100	0.5398	91.09	-3.58
101	0.5396	91.06	-3.59

PROPOSED READING ANTENNA PATTERN HORIZONTAL POLARIZATION

Azimuth (deg.)	Relative Field	Free Space Field* (mV/m at 1 mile)	ERP (dBk)
102	0.5395	91.04	-3.59
103	0.5393	91.01	-3.59
104	0.5392	90.99	-3.59
105	0.5393	91.01	-3.59
106	0.5398	91.09	-3.58
107	0.5405	91.21	-3.57
108	0.5415	91.38	-3.56
109	0.5426	91.56	-3.54
110	0.5438	91.77	-3.52
111	0.5450	91.97	-3.50
112	0.5463	92.19	-3.48
113	0.5478	92.44	-3.46
114	0.5496	92.74	-3.43
115	0.5518	93.12	-3.39
116	0.5543	93.54	-3.35
117	0.5569	93.98	-3.31
118	0.5594	94.40	-3.27
119	0.5614	94.74	-3.24
120	0.5628	94.97	-3.22
121	0.5638	95.14	-3.21
122	0.5647	95.29	-3.19
123	0.5656	95.44	-3.18
124	0.5669	95.66	-3.16
125	0.5685	95.93	-3.13
126	0.5704	96.25	-3.10
127	0.5727	96.64	-3.07
128	0.5860	98.89	-2.87
129	0.5997	101.20	-2.67
130	0.6137	103.56	-2.47
131	0.6280	105.97	-2.27
132	0.6426	108.44	-2.07
133	0.6575	110.95	-1.87
134	0.6729	113.55	-1.67
135	0.6885	116.18	-1.47
136	0.7046	118.90	-1.27
137	0.7210	121.67	-1.07
138	0.7378	124.50	-0.87
139	0.7550	127.41	-0.67
140	0.7726	130.38	-0.47
141	0.7905	133.40	-0.27
142	0.8090	136.52	-0.07
143	0.8278	139.69	0.13
144	0.8471	142.95	0.33
145	0.8668	146.27	0.53
146	0.8870	149.68	0.73
147	0.9077	153.17	0.93
148	0.9288	156.73	1.13
149	0.9504	160.38	1.33
150	0.9726	164.13	1.53
151	0.9992	168.61	1.77
152	0.9765	164.78	1.57
153	0.9543	161.04	1.37

PROPOSED READING ANTENNA PATTERN HORIZONTAL POLARIZATION

Azimuth (deg.)	Relative Field	Free Space Field* (mV/m at 1 mile)	ERP (dBk)
154	0.9325	157.36	1.17
155	0.9113	153.78	0.97
156	0.8906	150.29	0.77
157	0.8703	146.86	0.57
158	0.8505	143.52	0.37
159	0.8311	140.25	0.17
160	0.8122	137.06	-0.03
161	0.7937	133.94	-0.23
162	0.7757	130.90	-0.43
163	0.7580	127.91	-0.63
164	0.7407	124.99	-0.83
165	0.7239	122.16	-1.03
166	0.7074	119.37	-1.23
167	0.6913	116.66	-1.43
168	0.6756	114.01	-1.63
169	0.6602	111.41	-1.83
170	0.6452	108.88	-2.03
171	0.6305	106.40	-2.23
172	0.6161	103.97	-2.43
173	0.6021	101.60	-2.63
174	0.5986	101.01	-2.68
175	0.6017	101.54	-2.64
176	0.6020	101.59	-2.64
177	0.6000	101.25	-2.66
178	0.5927	100.02	-2.77
179	0.5781	97.55	-2.99
180	0.5710	96.36	-3.09
181	0.5841	98.57	-2.90
182	0.5977	100.86	-2.70
183	0.6116	103.21	-2.50
184	0.6259	105.62	-2.30
185	0.6404	108.07	-2.10
186	0.6554	110.60	-1.90
187	0.6706	113.16	-1.70
188	0.6862	115.80	-1.50
189	0.7079	119.46	-1.23
190	0.6918	116.74	-1.43
191	0.6760	114.07	-1.63
192	0.6606	111.48	-1.83
193	0.6456	108.94	-2.03
194	0.6309	106.46	-2.23
195	0.6165	104.03	-2.43
196	0.6025	101.67	-2.63
197	0.5888	99.36	-2.83
198	0.5754	97.10	-3.03
199	0.5623	94.89	-3.23
200	0.5495	92.73	-3.43
201	0.5376	90.72	-3.62
202	0.5297	89.39	-3.75
203	0.5250	88.59	-3.82
204	0.5181	87.43	-3.94
205	0.5081	85.74	-4.11

PROPOSED READING ANTENNA PATTERN HORIZONTAL POLARIZATION

Azimuth (deg.)	Relative Field	Free Space Field* (mV/m at 1 mile)	ERP (dBk)
206	0.4975	83.95	-4.29
207	0.4886	82.45	-4.45
208	0.4828	81.47	-4.55
209	0.4776	80.59	-4.65
210	0.4702	79.35	-4.78
211	0.4620	77.96	-4.93
212	0.4548	76.75	-5.07
213	0.4481	75.62	-5.20
214	0.4410	74.42	-5.34
215	0.4326	73.00	-5.51
216	0.4223	71.26	-5.72
217	0.4108	69.32	-5.95
218	0.3992	67.36	-6.20
219	0.3886	65.58	-6.44
220	0.3803	64.18	-6.62
221	0.3743	63.16	-6.76
222	0.3690	62.27	-6.89
223	0.3633	61.31	-7.02
224	0.3570	60.24	-7.17
225	0.3505	59.15	-7.33
226	0.3450	58.22	-7.47
227	0.3419	57.70	-7.55
228	0.3425	57.80	-7.53
229	0.3472	58.59	-7.42
230	0.3555	59.99	-7.21
231	0.3647	61.54	-6.99
232	0.3730	62.94	-6.79
233	0.3830	64.63	-6.56
234	0.3972	67.03	-6.25
235	0.4126	69.63	-5.92
236	0.4239	71.53	-5.68
237	0.4310	72.73	-5.54
238	0.4386	74.01	-5.39
239	0.4488	75.73	-5.19
240	0.4593	77.51	-4.99
241	0.4700	79.31	-4.79
242	0.4809	81.15	-4.59
243	0.4921	83.04	-4.39
244	0.5036	84.98	-4.19
245	0.5153	86.96	-3.99
246	0.5273	88.98	-3.79
247	0.5396	91.06	-3.59
248	0.5522	93.18	-3.39
249	0.5650	95.34	-3.19
250	0.5782	97.57	-2.99
251	0.5917	99.85	-2.79
252	0.6054	102.16	-2.59
253	0.6195	104.54	-2.39
254	0.6340	106.99	-2.19
255	0.6487	109.47	-1.99
256	0.6638	112.02	-1.79
257	0.6793	114.63	-1.59

PROPOSED READING ANTENNA PATTERN HORIZONTAL POLARIZATION

Azimuth (deg.)	Relative Field	Free Space Field* (mV/m at 1 mile)	ERP (dBk)
258	0.6951	117.30	-1.39
259	0.7113	120.03	-1.19
260	0.7279	122.83	-0.99
261	0.7448	125.68	-0.79
262	0.7622	128.62	-0.59
263	0.7800	131.62	-0.39
264	0.7981	134.68	-0.19
265	0.8167	137.82	0.01
266	0.8174	137.93	0.02
267	0.7988	134.79	-0.18
268	0.7806	131.72	-0.38
269	0.7628	128.73	-0.58
270	0.7455	125.80	-0.78
271	0.7285	122.93	-0.98
272	0.7119	120.13	-1.18
273	0.6957	117.40	-1.38
274	0.6799	114.73	-1.58
275	0.6644	112.11	-1.78
276	0.6493	109.56	-1.98
277	0.6345	107.07	-2.18
278	0.6200	104.63	-2.38
279	0.6059	102.25	-2.58
280	0.5921	99.92	-2.78
281	0.5787	97.65	-2.98
282	0.5655	95.43	-3.18
283	0.5526	93.25	-3.38
284	0.5400	91.13	-3.58
285	0.5277	89.06	-3.78
286	0.5157	87.03	-3.98
287	0.5040	85.05	-4.18
288	0.4925	83.11	-4.38
289	0.4813	81.22	-4.58
290	0.4704	79.37	-4.78
291	0.4596	77.56	-4.98
292	0.4492	75.80	-5.18
293	0.4390	74.07	-5.38
294	0.4290	72.39	-5.58
295	0.4192	70.74	-5.78
296	0.4097	69.13	-5.98
297	0.4003	67.56	-6.18
298	0.3912	66.02	-6.38
299	0.3823	64.52	-6.58
300	0.3736	63.05	-6.78
301	0.3651	61.61	-6.98
302	0.3568	60.21	-7.18
303	0.3487	58.84	-7.38
304	0.3407	57.50	-7.58
305	0.3330	56.19	-7.78
306	0.3254	54.91	-7.98
307	0.3180	53.66	-8.18
308	0.3108	52.44	-8.38
309	0.3040	51.30	-8.57

PROPOSED READING ANTENNA PATTERN HORIZONTAL POLARIZATION

Azimuth (deg.)	Relative Field	Free Space Field* (mV/m at 1 mile)	ERP (dBk)
310	0.2988	50.42	-8.72
311	0.2948	49.75	-8.84
312	0.2919	49.26	-8.92
313	0.2896	48.87	-8.99
314	0.2877	48.55	-9.05
315	0.2859	48.25	-9.10
316	0.2838	47.89	-9.17
317	0.2810	47.42	-9.25
318	0.2775	46.83	-9.36
319	0.2734	46.14	-9.49
320	0.2689	45.38	-9.64
321	0.2642	44.58	-9.79
322	0.2594	43.77	-9.95
323	0.2548	43.00	-10.10
324	0.2506	42.29	-10.25
325	0.2468	41.65	-10.38
326	0.2436	41.11	-10.49
327	0.2407	40.62	-10.60
328	0.2382	40.20	-10.69
329	0.2361	39.84	-10.77
330	0.2343	39.54	-10.83
331	0.2328	39.28	-10.89
332	0.2314	39.05	-10.94
333	0.2303	38.86	-10.98
334	0.2293	38.69	-11.02
335	0.2284	38.54	-11.05
336	0.2277	38.42	-11.08
337	0.2270	38.31	-11.11
338	0.2264	38.20	-11.13
339	0.2258	38.10	-11.15
340	0.2253	38.02	-11.17
341	0.2248	37.93	-11.19
342	0.2244	37.87	-11.21
343	0.2239	37.78	-11.23
344	0.2234	37.70	-11.25
345	0.2228	37.60	-11.27
346	0.2222	37.50	-11.29
347	0.2216	37.39	-11.32
348	0.2210	37.29	-11.34
349	0.2203	37.18	-11.37
350	0.2196	37.06	-11.39
351	0.2190	36.96	-11.42
352	0.2183	36.84	-11.45
353	0.2177	36.74	-11.47
354	0.2171	36.64	-11.49
355	0.2166	36.55	-11.51
356	0.2161	36.47	-11.53
357	0.2156	36.38	-11.55
358	0.2153	36.33	-11.57
359	0.2153	36.33	-11.57

* Based on 137.6 mV/m/kW at 1 mile.

TABLE OF FIELD STRENGTH

JSCP 2-BAY

ELEV. ANGLE	FIELD STRNGTH	ELEV. ANGLE	FIELD STRNGTH	ELEV. ANGLE	FIELD STRNGTH	ELEV. ANGLE	FIELD STRNGTH	ELEV. ANGLE	FIELD STRNGTH
90.0	.100	89.0	.108	88.0	.116	87.0	.123	86.0	.131
85.0	.139	84.0	.147	83.0	.154	82.0	.162	81.0	.170
80.0	.178	79.0	.191	78.0	.205	77.0	.219	76.0	.232
75.0	.246	74.0	.259	73.0	.272	72.0	.285	71.0	.298
70.0	.311	69.0	.322	68.0	.333	67.0	.344	66.0	.355
65.0	.365	64.0	.375	63.0	.384	62.0	.393	61.0	.400
60.0	.408	59.0	.416	58.0	.423	57.0	.430	56.0	.435
55.0	.439	54.0	.442	53.0	.444	52.0	.445	51.0	.444
50.0	.442	49.0	.435	48.0	.428	47.0	.418	46.0	.407
45.0	.395	44.0	.381	43.0	.365	42.0	.347	41.0	.328
40.0	.307	39.0	.285	38.0	.261	37.0	.235	36.0	.207
35.0	.178	34.0	.146	33.0	.112	32.0	.076	31.0	.039
30.0	.000	29.0	.040	28.0	.082	27.0	.124	26.0	.167
25.0	.211	24.0	.255	23.0	.300	22.0	.345	21.0	.390
20.0	.434	19.0	.479	18.0	.522	17.0	.566	16.0	.608
15.0	.649	14.0	.689	13.0	.728	12.0	.766	11.0	.802
10.0	.835	9.0	.864	8.0	.889	7.0	.913	6.0	.934
5.0	.952	4.0	.967	3.0	.980	2.0	.990	1.0	.996
.0	1.000	-1.0	.996	-2.0	.990	-3.0	.980	-4.0	.967
-5.0	.952	-6.0	.934	-7.0	.913	-8.0	.889	-9.0	.864
-10.0	.835	-11.0	.802	-12.0	.766	-13.0	.728	-14.0	.689
-15.0	.649	-16.0	.608	-17.0	.566	-18.0	.522	-19.0	.479
-20.0	.434	-21.0	.390	-22.0	.345	-23.0	.300	-24.0	.255
-25.0	.211	-26.0	.167	-27.0	.124	-28.0	.082	-29.0	.040
-30.0	.000	-31.0	.039	-32.0	.076	-33.0	.112	-34.0	.146
-35.0	.178	-36.0	.207	-37.0	.235	-38.0	.261	-39.0	.285
-40.0	.307	-41.0	.328	-42.0	.347	-43.0	.365	-44.0	.381
-45.0	.395	-46.0	.407	-47.0	.418	-48.0	.428	-49.0	.435
-50.0	.442	-51.0	.444	-52.0	.445	-53.0	.444	-54.0	.442
-55.0	.439	-56.0	.435	-57.0	.430	-58.0	.423	-59.0	.416
-60.0	.408	-61.0	.400	-62.0	.393	-63.0	.384	-64.0	.375
-65.0	.365	-66.0	.355	-67.0	.344	-68.0	.333	-69.0	.322
-70.0	.311	-71.0	.298	-72.0	.285	-73.0	.272	-74.0	.259
-75.0	.246	-76.0	.232	-77.0	.219	-78.0	.205	-79.0	.191
-80.0	.178	-81.0	.170	-82.0	.162	-83.0	.154	-84.0	.147
-85.0	.139	-86.0	.131	-87.0	.123	-88.0	.116	-89.0	.108
-90.0	.100								

JAMPRO ANTENNAS, INC.
6939 Power Inn Road, P.O. Box 28425, Sacramento, CA 95828 (916) 383-1177 Telex: 377321

TABLE 2

JAMPRO JSCP-2 ELEVATION PATTERN

TABLE 3
Louis A. Williams, Jr. and Associates
Cincinnati, Ohio

March 1989

TERRAIN TABULATION PROGRAM

Job title: Proposed Reading FM
Bearing: 0.0 Degrees

Latitude: 39-13-23
Longitude: 84-25-57

Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)
0.1	213.4	3.3	182.9	6.5	182.9	9.7	182.9	12.9	220.7
0.2	213.4	3.4	182.9	6.6	182.9	9.8	182.9	13.0	223.4
0.3	212.5	3.5	182.9	6.7	182.9	9.9	182.9	13.1	226.5
0.4	211.2	3.6	182.9	6.8	182.9	10.0	182.9	13.2	228.6
0.5	210.0	3.7	182.9	6.9	182.9	10.1	182.9	13.3	229.2
0.6	208.8	3.8	182.9	7.0	182.9	10.2	182.9	13.4	229.8
0.7	207.6	3.9	182.9	7.1	182.9	10.3	182.9	13.5	230.4
0.8	206.4	4.0	182.9	7.2	182.9	10.4	182.9	13.6	231.0
0.9	205.1	4.1	182.9	7.3	182.9	10.5	183.5	13.7	231.7
1.0	204.2	4.2	182.9	7.4	182.9	10.6	184.4	13.8	232.3
1.1	203.0	4.3	182.9	7.5	182.9	10.7	185.0	13.9	232.9
1.2	201.2	4.4	182.9	7.6	182.9	10.8	185.6	14.0	233.5
1.3	199.0	4.5	182.9	7.7	182.9	10.9	186.5	14.1	234.1
1.4	197.2	4.6	182.9	7.8	182.9	11.0	187.2	14.2	234.1
1.5	195.1	4.7	182.9	7.9	182.9	11.1	188.1	14.3	234.1
1.6	192.9	4.8	182.9	8.0	182.9	11.2	188.7	14.4	234.1
1.7	191.1	4.9	182.9	8.1	182.9	11.3	189.3	14.5	234.1
1.8	189.0	5.0	182.9	8.2	182.9	11.4	190.5	14.6	234.1
1.9	186.8	5.1	182.9	8.3	182.9	11.5	192.0	14.7	234.1
2.0	185.0	5.2	182.9	8.4	182.9	11.6	193.2	14.8	234.1
2.1	183.5	5.3	182.9	8.5	182.9	11.7	194.8	14.9	234.1
2.2	183.5	5.4	182.9	8.6	182.9	11.8	196.0	15.0	234.1
2.3	183.5	5.5	182.9	8.7	182.9	11.9	197.5	15.1	233.2
2.4	183.2	5.6	182.9	8.8	182.9	12.0	198.7	15.2	231.7
2.5	183.2	5.7	182.9	8.9	182.9	12.1	200.3	15.3	230.4
2.6	183.2	5.8	182.9	9.0	182.9	12.2	201.8	15.4	228.9
2.7	183.2	5.9	182.9	9.1	182.9	12.3	203.6	15.5	227.7
2.8	182.9	6.0	182.9	9.2	182.9	12.4	206.7	15.6	226.2
2.9	182.9	6.1	182.9	9.3	182.9	12.5	209.4	15.7	224.9
3.0	182.9	6.2	182.9	9.4	182.9	12.6	212.1	15.8	223.4
3.1	182.9	6.3	182.9	9.5	182.9	12.7	214.9	15.9	222.2
3.2	182.9	6.4	182.9	9.6	182.9	12.8	217.9	16.0	221.0
								16.1	220.4

This table is derived from the NGDC 30-second database. Average elevations can be calculated using this data, but the elevation of a specific location, such as the ground elevation of an antenna site, should be read from the appropriate topographical map.

TABLE 3
Louis A. Williams, Jr. and Associates
Cincinnati, Ohio

March 1989

TERRAIN TABULATION PROGRAM

Job title: Proposed Reading FM
Bearing: 45.0 Degrees

Latitude: 39-13-23
Longitude: 84-25-57

Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)
0.1	213.4	3.3	223.7	6.5	249.9	9.7	255.7	12.9	272.5
0.2	213.4	3.4	224.6	6.6	251.2	9.8	255.4	13.0	272.5
0.3	213.4	3.5	225.3	6.7	252.1	9.9	255.1	13.1	272.8
0.4	213.1	3.6	226.2	6.8	253.6	10.0	255.1	13.2	273.4
0.5	212.8	3.7	226.8	6.9	254.8	10.1	255.7	13.3	274.0
0.6	212.5	3.8	227.4	7.0	256.0	10.2	256.6	13.4	274.3
0.7	212.5	3.9	228.0	7.1	255.7	10.3	257.6	13.5	274.3
0.8	212.8	4.0	228.6	7.2	255.4	10.4	258.5	13.6	274.3
0.9	213.4	4.1	229.5	7.3	255.4	10.5	259.4	13.7	274.3
1.0	213.4	4.2	230.4	7.4	255.7	10.6	260.3	13.8	274.3
1.1	213.4	4.3	231.3	7.5	256.0	10.7	261.2	13.9	274.3
1.2	213.4	4.4	232.6	7.6	256.6	10.8	262.1	14.0	274.3
1.3	213.4	4.5	233.5	7.7	257.3	10.9	263.0	14.1	274.3
1.4	213.4	4.6	234.4	7.8	258.2	11.0	264.0	14.2	274.0
1.5	213.4	4.7	235.3	7.9	259.4	11.1	264.9	14.3	274.0
1.6	213.4	4.8	235.9	8.0	260.6	11.2	265.5	14.4	273.7
1.7	213.1	4.9	236.5	8.1	260.3	11.3	266.1	14.5	274.0
1.8	213.1	5.0	237.1	8.2	260.0	11.4	266.7	14.6	274.0
1.9	213.4	5.1	237.7	8.3	259.4	11.5	267.6	14.7	274.3
2.0	213.7	5.2	238.7	8.4	258.8	11.6	268.5	14.8	274.3
2.1	214.3	5.3	239.6	8.5	258.5	11.7	269.4	14.9	274.3
2.2	214.9	5.4	240.5	8.6	258.2	11.8	270.4	15.0	274.3
2.3	215.5	5.5	241.7	8.7	257.9	11.9	271.6	15.1	274.3
2.4	216.1	5.6	242.9	8.8	257.9	12.0	273.1	15.2	274.3
2.5	216.7	5.7	244.1	8.9	257.9	12.1	274.0	15.3	274.3
2.6	217.3	5.8	245.4	9.0	257.9	12.2	273.4	15.4	274.3
2.7	217.9	5.9	246.9	9.1	257.9	12.3	273.1	15.5	274.3
2.8	218.5	6.0	247.8	9.2	257.6	12.4	272.8	15.6	274.3
2.9	219.2	6.1	248.1	9.3	257.3	12.5	272.5	15.7	274.3
3.0	220.1	6.2	248.1	9.4	257.0	12.6	272.2	15.8	274.3
3.1	221.3	6.3	248.7	9.5	256.6	12.7	272.2	15.9	274.3
3.2	222.5	6.4	249.3	9.6	256.0	12.8	272.2	16.0	274.3
								16.1	273.4

This table is derived from the NGDC 30-second database. Average elevations can be calculated using this data, but the elevation of a specific location, such as the ground elevation of an antenna site, should be read from the appropriate topographical map.

TABLE 3
Louis A. Williams, Jr. and Associates
Cincinnati, Ohio

March 1989

TERRAIN TABULATION PROGRAM

Job title: Proposed Reading FM
Bearing: 90.0 Degrees

Latitude: 39-13-23
Longitude: 84-25-57

Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)
0.1	213.4	3.3	266.1	6.5	223.1	9.7	186.2	12.9	210.9
0.2	213.4	3.4	269.8	6.6	222.2	9.8	185.0	13.0	214.0
0.3	213.4	3.5	273.7	6.7	221.3	9.9	183.8	13.1	217.0
0.4	213.4	3.6	272.2	6.8	220.7	10.0	182.9	13.2	220.4
0.5	213.4	3.7	269.4	6.9	219.8	10.1	182.9	13.3	223.4
0.6	213.4	3.8	267.0	7.0	218.9	10.2	182.9	13.4	226.8
0.7	213.4	3.9	264.6	7.1	217.9	10.3	182.9	13.5	229.8
0.8	213.4	4.0	261.8	7.2	217.3	10.4	182.9	13.6	232.3
0.9	213.4	4.1	259.4	7.3	216.7	10.5	182.9	13.7	233.8
1.0	213.4	4.2	257.0	7.4	216.1	10.6	182.9	13.8	235.3
1.1	213.4	4.3	254.8	7.5	215.5	10.7	182.9	13.9	236.8
1.2	213.4	4.4	253.3	7.6	214.9	10.8	182.9	14.0	238.4
1.3	213.4	4.5	251.5	7.7	214.3	10.9	182.9	14.1	239.9
1.4	213.4	4.6	249.6	7.8	213.4	11.0	182.9	14.2	241.1
.5	214.0	4.7	248.1	7.9	210.3	11.1	182.9	14.3	242.3
1.6	214.3	4.8	246.3	8.0	206.7	11.2	182.9	14.4	242.6
1.7	214.6	4.9	244.8	8.1	203.0	11.3	182.9	14.5	242.9
1.8	215.2	5.0	242.9	8.2	199.3	11.4	182.9	14.6	242.9
1.9	215.5	5.1	241.1	8.3	195.7	11.5	183.5	14.7	243.2
2.0	215.8	5.2	239.0	8.4	192.3	11.6	184.1	14.8	243.5
2.1	217.0	5.3	237.1	8.5	188.7	11.7	184.7	14.9	243.5
2.2	221.3	5.4	235.3	8.6	187.8	11.8	185.3	15.0	243.8
2.3	225.6	5.5	233.5	8.7	188.4	11.9	185.9	15.1	243.8
2.4	229.8	5.6	231.3	8.8	189.0	12.0	186.8	15.2	243.8
2.5	234.1	5.7	229.8	8.9	189.6	12.1	187.5	15.3	243.8
2.6	238.4	5.8	229.2	9.0	190.2	12.2	189.9	15.4	243.8
2.7	242.6	5.9	228.3	9.1	190.8	12.3	192.6	15.5	243.8
2.8	246.9	6.0	227.4	9.2	191.4	12.4	195.7	15.6	243.8
2.9	250.6	6.1	226.5	9.3	191.1	12.5	198.7	15.7	243.8
3.0	254.5	6.2	225.6	9.4	189.9	12.6	201.8	15.8	243.8
3.1	258.5	6.3	224.9	9.5	188.7	12.7	204.8	15.9	243.8
3.2	262.1	6.4	224.0	9.6	187.5	12.8	207.6	16.0	243.8
								16.1	243.8

This table is derived from the NGDC 30-second database. Average elevations can be calculated using this data, but the elevation of a specific location, such as the ground elevation of an antenna site, should be read from the appropriate topographical map.

TABLE 3
Louis A. Williams, Jr. and Associates
Cincinnati, Ohio

TERRAIN TABULATION PROGRAM

Job title: Proposed Reading FM
Bearing: 135.0 Degrees

Latitude: 39-13-23
Longitude: 84-25-57

Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)
0.1	213.4	3.3	249.3	6.5	223.1	9.7	252.4	12.9	167.0
0.2	213.4	3.4	251.5	6.6	222.2	9.8	257.3	13.0	168.9
0.3	213.4	3.5	253.6	6.7	221.3	9.9	262.4	13.1	170.7
0.4	213.4	3.6	255.7	6.8	220.4	10.0	267.9	13.2	171.0
0.5	213.4	3.7	256.3	6.9	219.5	10.1	272.5	13.3	171.3
0.6	213.4	3.8	256.3	7.0	218.5	10.2	273.7	13.4	171.6
0.7	213.4	3.9	256.0	7.1	217.6	10.3	271.6	13.5	171.9
0.8	213.4	4.0	255.4	7.2	217.0	10.4	269.8	13.6	172.5
0.9	213.4	4.1	254.5	7.3	216.7	10.5	267.3	13.7	173.1
1.0	213.4	4.2	253.6	7.4	216.7	10.6	265.2	13.8	174.0
1.1	213.7	4.3	252.7	7.5	216.7	10.7	262.7	13.9	174.7
1.2	214.0	4.4	251.8	7.6	217.0	10.8	260.3	14.0	175.6
1.3	214.3	4.5	251.2	7.7	217.6	10.9	257.9	14.1	177.1
1.4	215.2	4.6	250.6	7.8	218.2	11.0	255.1	14.2	183.8
1.5	216.1	4.7	250.2	7.9	218.9	11.1	250.9	14.3	190.8
1.6	217.0	4.8	249.9	8.0	219.5	11.2	242.6	14.4	197.8
1.7	218.2	4.9	249.6	8.1	220.1	11.3	233.8	14.5	204.8
1.8	219.8	5.0	248.4	8.2	221.0	11.4	224.3	14.6	211.5
1.9	221.6	5.1	245.4	8.3	222.2	11.5	214.3	14.7	218.5
2.0	223.4	5.2	242.6	8.4	223.1	11.6	204.2	14.8	225.3
2.1	225.6	5.3	239.9	8.5	224.3	11.7	194.8	14.9	232.3
2.2	227.7	5.4	237.4	8.6	225.9	11.8	186.2	15.0	239.3
2.3	229.8	5.5	235.3	8.7	227.1	11.9	178.3	15.1	246.3
2.4	231.7	5.6	233.2	8.8	228.6	12.0	171.0	15.2	251.5
2.5	233.2	5.7	231.3	8.9	230.1	12.1	165.2	15.3	254.8
2.6	235.0	5.8	229.5	9.0	232.0	12.2	164.3	15.4	257.6
2.7	236.5	5.9	228.0	9.1	233.5	12.3	163.7	15.5	256.3
2.8	238.4	6.0	226.8	9.2	235.6	12.4	163.7	15.6	255.1
2.9	239.9	6.1	226.2	9.3	238.1	12.5	163.4	15.7	254.2
3.0	242.0	6.2	225.6	9.4	240.8	12.6	163.7	15.8	253.3
3.1	244.8	6.3	224.9	9.5	244.1	12.7	164.3	15.9	252.4
3.2	246.9	6.4	224.0	9.6	248.1	12.8	165.2	16.0	251.8
								16.1	251.2

This table is derived from the NGDC 30-second database. Average elevations can be calculated using this data, but the elevation of a specific location, such as the ground elevation of an antenna site, should be read from the appropriate topographical map.

TABLE 3
Louis A. Williams, Jr. and Associates
Cincinnati, Ohio

TERRAIN TABULATION PROGRAM

Job title: Proposed Reading FM
Bearing: 180.0 Degrees

Latitude: 39-13-23
Longitude: 84-25-57

Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)
0.1	213.4	3.3	213.4	6.5	182.9	9.7	213.4	12.9	153.0
0.2	213.4	3.4	213.4	6.6	182.9	9.8	213.4	13.0	152.7
0.3	213.4	3.5	213.4	6.7	182.9	9.9	213.4	13.1	152.7
0.4	213.4	3.6	213.4	6.8	182.9	10.0	212.5	13.2	152.7
0.5	213.4	3.7	213.4	6.9	182.9	10.1	209.4	13.3	152.7
0.6	213.4	3.8	213.4	7.0	182.9	10.2	206.7	13.4	152.7
0.7	213.4	3.9	213.4	7.1	182.9	10.3	203.6	13.5	152.4
0.8	213.4	4.0	213.4	7.2	182.9	10.4	200.6	13.6	152.4
0.9	213.4	4.1	213.4	7.3	182.9	10.5	197.5	13.7	152.4
1.0	213.4	4.2	213.4	7.4	182.9	10.6	194.8	13.8	152.4
1.1	213.4	4.3	213.4	7.5	182.9	10.7	191.7	13.9	152.4
1.2	213.4	4.4	213.4	7.6	182.9	10.8	188.7	14.0	152.4
1.3	213.4	4.5	213.4	7.7	182.9	10.9	185.9	14.1	152.4
1.4	213.4	4.6	213.4	7.8	182.9	11.0	185.9	14.2	152.4
1.5	213.4	4.7	213.1	7.9	182.9	11.1	185.9	14.3	152.4
1.6	213.4	4.8	213.1	8.0	182.9	11.2	185.9	14.4	152.4
1.7	213.4	4.9	213.1	8.1	182.9	11.3	185.9	14.5	152.4
1.8	213.4	5.0	213.1	8.2	185.6	11.4	185.9	14.6	152.4
1.9	213.7	5.1	213.1	8.3	189.0	11.5	185.9	14.7	152.4
2.0	213.7	5.2	212.8	8.4	192.0	11.6	185.9	14.8	152.4
2.1	213.7	5.3	212.8	8.5	195.4	11.7	185.9	14.9	152.4
2.2	213.7	5.4	210.9	8.6	198.7	11.8	185.9	15.0	152.4
2.3	213.7	5.5	207.6	8.7	202.1	11.9	183.2	15.1	152.4
2.4	214.0	5.6	204.2	8.8	205.4	12.0	179.5	15.2	152.4
2.5	214.0	5.7	201.2	8.9	208.8	12.1	176.2	15.3	152.4
2.6	214.0	5.8	197.8	9.0	211.8	12.2	172.5	15.4	152.4
2.7	214.0	5.9	194.8	9.1	213.4	12.3	168.9	15.5	152.4
2.8	213.7	6.0	191.4	9.2	213.4	12.4	165.5	15.6	152.4
2.9	213.7	6.1	188.4	9.3	213.4	12.5	161.9	15.7	152.4
3.0	213.7	6.2	185.0	9.4	213.4	12.6	158.2	15.8	152.4
3.1	213.7	6.3	182.9	9.5	213.4	12.7	154.8	15.9	152.4
3.2	213.7	6.4	182.9	9.6	213.4	12.8	153.0	16.0	152.4
								16.1	152.4

This table is derived from the NGDC 30-second database. Average elevations can be calculated using this data, but the elevation of a specific location, such as the ground elevation of an antenna site, should be read from the appropriate topographical map.

TABLE 3
Louis A. Williams, Jr. and Associates
Cincinnati, Ohio

TERRAIN TABULATION PROGRAM

Job title: Proposed Reading FM
Bearing: 225.0 Degrees

Latitude: 39-13-23
Longitude: 84-25-57

Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)
0.1	213.4	3.3	182.0	6.5	169.8	9.7	167.6	12.9	162.2
0.2	211.2	3.4	181.4	6.6	169.2	9.8	170.4	13.0	159.7
0.3	209.7	3.5	180.8	6.7	168.9	9.9	173.4	13.1	157.3
0.4	208.2	3.6	180.1	6.8	167.9	10.0	176.5	13.2	154.8
0.5	207.3	3.7	179.5	6.9	167.3	10.1	179.5	13.3	152.4
0.6	206.7	3.8	178.9	7.0	166.4	10.2	182.3	13.4	153.9
0.7	206.4	3.9	178.3	7.1	165.8	10.3	182.6	13.5	156.1
0.8	206.7	4.0	177.7	7.2	164.6	10.4	182.3	13.6	158.5
0.9	207.0	4.1	177.1	7.3	164.0	10.5	181.7	13.7	161.2
1.0	207.9	4.2	176.8	7.4	163.4	10.6	181.4	13.8	164.6
1.1	207.6	4.3	176.8	7.5	162.8	10.7	181.4	13.9	168.3
1.2	205.1	4.4	176.8	7.6	162.8	10.8	181.1	14.0	171.9
1.3	203.0	4.5	176.8	7.7	163.4	10.9	181.1	14.1	176.2
1.4	200.6	4.6	176.8	7.8	164.0	11.0	181.4	14.2	179.2
1.5	198.1	4.7	176.8	7.9	164.3	11.1	181.4	14.3	182.3
1.6	195.7	4.8	176.8	8.0	164.6	11.2	181.7	14.4	183.2
1.7	193.2	4.9	176.8	8.1	164.6	11.3	182.0	14.5	183.5
1.8	190.8	5.0	176.8	8.2	164.9	11.4	182.3	14.6	183.8
1.9	188.4	5.1	176.8	8.3	164.6	11.5	183.2	14.7	184.1
2.0	185.9	5.2	176.8	8.4	164.0	11.6	183.8	14.8	184.1
2.1	183.5	5.3	176.2	8.5	163.4	11.7	184.4	14.9	184.1
2.2	182.9	5.4	175.6	8.6	162.5	11.8	184.4	15.0	184.1
2.3	182.9	5.5	175.0	8.7	161.2	11.9	183.8	15.1	183.8
2.4	182.9	5.6	174.4	8.8	160.0	12.0	183.2	15.2	183.8
2.5	182.9	5.7	173.7	8.9	159.1	12.1	182.3	15.3	183.2
2.6	182.9	5.8	173.1	9.0	158.5	12.2	180.8	15.4	182.9
2.7	182.9	5.9	172.5	9.1	157.9	12.3	178.6	15.5	187.5
2.8	182.9	6.0	171.9	9.2	157.9	12.4	175.6	15.6	191.7
2.9	182.9	6.1	171.3	9.3	158.8	12.5	172.8	15.7	196.0
3.0	182.9	6.2	170.7	9.4	160.6	12.6	170.1	15.8	200.0
3.1	182.9	6.3	170.4	9.5	163.1	12.7	167.0	15.9	203.6
3.2	182.6	6.4	170.1	9.6	165.2	12.8	164.6	16.0	207.3
								16.1	210.6

This table is derived from the NGDC 30-second database. Average elevations can be calculated using this data, but the elevation of a specific location, such as the ground elevation of an antenna site, should be read from the appropriate topographical map.

TABLE 3
Louis A. Williams, Jr. and Associates
Cincinnati, Ohio

TERRAIN TABULATION PROGRAM

Job title: Proposed Reading FM
Bearing: 270.0 Degrees

Latitude: 39-13-23
Longitude: 84-25-57

Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)
0.1	212.5	3.3	184.4	6.5	243.5	9.7	249.3	12.9	249.3
0.2	208.8	3.4	185.3	6.6	245.4	9.8	250.2	13.0	250.2
0.3	205.4	3.5	186.2	6.7	247.5	9.9	251.2	13.1	251.8
0.4	202.1	3.6	187.2	6.8	249.6	10.0	251.8	13.2	253.6
0.5	198.7	3.7	188.7	6.9	251.8	10.1	252.7	13.3	255.4
0.6	195.1	3.8	191.1	7.0	253.9	10.2	253.6	13.4	257.0
0.7	191.7	3.9	193.9	7.1	255.7	10.3	254.5	13.5	258.8
0.8	188.4	4.0	196.3	7.2	257.9	10.4	255.4	13.6	260.3
0.9	187.8	4.1	199.0	7.3	258.2	10.5	256.0	13.7	262.1
1.0	186.8	4.2	201.5	7.4	256.6	10.6	257.0	13.8	263.7
1.1	186.2	4.3	204.2	7.5	255.1	10.7	257.9	13.9	265.5
1.2	185.3	4.4	207.0	7.6	253.6	10.8	258.8	14.0	267.3
1.3	184.4	4.5	210.3	7.7	252.1	10.9	258.8	14.1	268.8
1.4	183.8	4.6	214.0	7.8	250.6	11.0	258.8	14.2	270.7
1.5	182.9	4.7	217.3	7.9	249.0	11.1	258.5	14.3	272.2
1.6	182.0	4.8	220.7	8.0	248.1	11.2	258.2	14.4	274.0
1.7	181.4	4.9	224.3	8.1	247.8	11.3	258.2	14.5	274.3
1.8	180.4	5.0	227.7	8.2	247.8	11.4	257.9	14.6	274.3
1.9	179.5	5.1	231.0	8.3	247.5	11.5	257.6	14.7	274.3
2.0	178.6	5.2	231.7	8.4	247.2	11.6	256.6	14.8	274.3
2.1	177.7	5.3	232.6	8.5	247.2	11.7	254.8	14.9	274.3
2.2	177.1	5.4	233.5	8.6	246.9	11.8	253.3	15.0	274.3
2.3	177.4	5.5	234.1	8.7	246.9	11.9	251.5	15.1	274.3
2.4	178.0	5.6	235.0	8.8	246.9	12.0	249.9	15.2	272.5
2.5	178.6	5.7	235.9	8.9	246.9	12.1	248.1	15.3	269.4
2.6	179.2	5.8	236.5	9.0	246.9	12.2	246.6	15.4	266.4
2.7	179.8	5.9	237.4	9.1	246.9	12.3	245.7	15.5	263.4
2.8	180.4	6.0	238.7	9.2	246.9	12.4	246.3	15.6	260.6
2.9	181.1	6.1	239.6	9.3	246.9	12.5	246.9	15.7	257.6
3.0	182.0	6.2	240.5	9.4	246.9	12.6	247.5	15.8	254.5
3.1	182.9	6.3	241.4	9.5	247.5	12.7	248.1	15.9	252.4
3.2	183.8	6.4	242.6	9.6	248.4	12.8	248.7	16.0	251.2
								16.1	249.9

This table is derived from the NGDC 30-second database. Average elevations can be calculated using this data, but the elevation of a specific location, such as the ground elevation of an antenna site, should be read from the appropriate topographical map.

TABLE 3
Louis A. Williams, Jr. and Associates
Cincinnati, Ohio

TERRAIN TABULATION PROGRAM

Job title: Proposed Reading FM
Bearing: 315.0 Degrees

Latitude: 39-13-23
Longitude: 84-25-57

Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)	Dist. (km)	Elev. (m)
0.1	213.4	3.3	198.4	6.5	207.0	9.7	248.7	12.9	234.7
0.2	210.6	3.4	196.6	6.6	208.5	9.8	250.2	13.0	232.0
0.3	207.6	3.5	194.8	6.7	209.7	9.9	251.8	13.1	228.9
0.4	203.9	3.6	192.9	6.8	210.6	10.0	253.3	13.2	225.3
0.5	200.3	3.7	191.1	6.9	211.8	10.1	254.8	13.3	222.5
0.6	196.9	3.8	189.3	7.0	213.4	10.2	256.3	13.4	221.9
0.7	193.9	3.9	187.5	7.1	214.9	10.3	257.6	13.5	222.8
0.8	191.1	4.0	185.6	7.2	216.7	10.4	258.2	13.6	223.7
0.9	188.1	4.1	183.8	7.3	218.5	10.5	258.2	13.7	224.0
1.0	185.6	4.2	182.9	7.4	220.7	10.6	257.6	13.8	224.3
1.1	182.9	4.3	183.2	7.5	222.8	10.7	256.6	13.9	224.3
1.2	182.9	4.4	183.5	7.6	225.6	10.8	255.4	14.0	224.0
1.3	182.9	4.5	183.8	7.7	228.0	10.9	254.2	14.1	223.4
1.4	182.9	4.6	183.8	7.8	231.0	11.0	253.3	14.2	222.5
1.5	182.9	4.7	183.8	7.9	234.1	11.1	252.1	14.3	221.3
1.6	182.9	4.8	183.8	8.0	237.1	11.2	250.6	14.4	219.2
1.7	182.9	4.9	183.8	8.1	240.8	11.3	250.2	14.5	217.6
1.8	182.9	5.0	183.5	8.2	243.5	11.4	250.6	14.6	216.7
1.9	182.9	5.1	183.2	8.3	243.8	11.5	250.6	14.7	216.1
2.0	182.9	5.2	183.5	8.4	243.8	11.6	250.2	14.8	216.4
2.1	182.9	5.3	184.7	8.5	243.8	11.7	249.6	14.9	216.4
2.2	183.5	5.4	186.2	8.6	243.8	11.8	249.0	15.0	216.7
2.3	184.4	5.5	187.2	8.7	243.8	11.9	247.8	15.1	216.7
2.4	185.9	5.6	189.0	8.8	243.8	12.0	246.6	15.2	216.7
2.5	187.5	5.7	191.7	8.9	243.8	12.1	244.8	15.3	216.7
2.6	189.3	5.8	194.2	9.0	243.8	12.2	243.8	15.4	219.2
2.7	191.4	5.9	196.3	9.1	243.8	12.3	242.9	15.5	221.3
2.8	193.9	6.0	198.1	9.2	243.8	12.4	242.6	15.6	223.7
2.9	196.6	6.1	200.0	9.3	244.1	12.5	241.7	15.7	226.5
3.0	198.7	6.2	201.5	9.4	244.8	12.6	240.5	15.8	228.9
3.1	200.6	6.3	203.3	9.5	245.7	12.7	239.0	15.9	231.7
3.2	200.3	6.4	205.1	9.6	247.2	12.8	236.8	16.0	234.7
								16.1	235.9

This table is derived from the NGDC 30-second database. Average elevations can be calculated using this data, but the elevation of a specific location, such as the ground elevation of an antenna site, should be read from the appropriate topographical map.

TABLE 4

Louis A. Williams, Jr. and Associates
Cincinnati, Ohio
March, 1989

Terrain Averaging Program

Job Title: Proposed Site
HAAT (m): 72

Latitude: 39-13-23
Longitude: 84-25-57

	Bearing (Deg-true)	3-16 km Avg. Terrain Elev. (m)	Height Above Average Terrain (m)
	0.0	197.0	90.9
	45.0	257.4	30.5
	90.0	219.7	68.2
	135.0	225.5	62.4
	180.0	185.3	102.6
	225.0	174.4	113.5
	270.0	244.5	43.4
	315.0	223.1	64.8
*	18.0	225.1	62.8
*	19.0	228.9	59.0
*	27.4	246.9	41.0
*	61.4	228.7	59.2
*	65.0	224.5	63.4
*	80.3	223.4	64.5
*	85.0	222.5	65.4
*	103.9	224.9	63.0
*	110.0	220.8	67.1
*	119.4	218.3	69.6
*	126.7	228.9	59.0
*	151.0	200.5	87.4
*	173.2	185.0	102.9
*	179.9	185.4	102.5
*	180.3	184.9	103.0
*	189.2	206.9	81.0
*	200.3	189.4	98.5
*	227.0	172.0	115.9
*	227.4	171.9	116.0
*	238.2	193.3	94.6
*	265.5	246.1	41.8
*	308.3	231.7	56.2
*	324.0	226.0	61.9
*	336.6	210.7	77.2
*	358.6	194.5	93.4
	Average:	215.9	72.0

* Radial not included in average

LOUIS A. WILLIAMS, JR. AND ASSOCIATES
MARCH 1989

TABLE 5

PROPOSED READING COVERAGE CONTOUR

Bearing (Deg)	HAAT (m)	Max ERP (kW)	F(50,50) 1 mV/m (km)	Limit	Bearing To
0.0	90.9	0.070	9.01	WLHS 1 mV/m	Cardinal Radial
18.0	62.8	0.084	7.79	WLHS 1 mV/m	WDPS/WDPR
19.0	59.0	0.085	7.58	WLHS 1 mV/m	WDPR/CP
27.4	41.0	0.097	6.48	WLHS 1 mV/m	WLHS
45.0	30.5	0.144	6.22	WLHS 1 mV/m	Cardinal Radial
61.4	59.2	0.276	10.37	WLHS 1 mV/m	WLMH
65.0	63.4	0.320	11.07	Edge of 2 dB/10° (WLHS)	
80.3	64.5	0.646	13.16	2 dB/10° from WLHS/WOBO	Local Peak
85.0	65.4	0.519	12.57	Edge of 2 dB/10° (WOBO)	
90.0	68.2	0.488	12.62	WOBO 1 mV/m	Cardinal Radial
103.9	63.0	0.437	11.88	WOBO 1 mV/m	Lowest WOBO Limit
110.0	67.1	0.445	12.26	WOBO 1 mV/m	WCNE
119.4	69.6	0.475	12.65	WOBO 1 mV/m	WVXM/CP
126.7	59.0	0.492	11.89	Edge of 2 dB/10° (WOBO)	
5.0	62.4	0.721	13.32	2 dB/10° from WOBO	Cardinal Radial
151.0	87.4	1.504	19.20	2 dB/10° from WOBO/WNKU	Absolute Peak
173.2	102.9	0.540	15.95	Edge of 2 dB/10° (WNKU)	
179.9	102.5	0.490	15.48	WNKU 10 mV/m	Lowest WKNU Limit
180.0	102.6	0.490	15.49	WNKU 10 mV/m	Cardinal Radial
180.3	103.0	0.494	15.56	Edge of 2 dB/10° (WNKU)	
189.2	81.0	0.746	15.20	2 dB/10° from WNKU/WFPL	Local Peak
200.3	98.5	0.448	14.78	Edge of 2 dB/10° (WFPL)	
225.0	113.5	0.185	12.71	WFPL 0.1 mV/m	Cardinal Radial
227.0	115.9	0.176	12.68	WFPL 0.1 mV/m	WFPL
227.4	116.0	0.176	12.68	WFPL 0.1 mV/m	Lowest WFPL Limit
238.2	94.6	0.292	13.00	Edge of 2 dB/10° (WFPL)	
265.5	41.8	1.027	11.93	2 dB/10° from WFPL/WLHS	Local Peak
270.0	43.4	0.834	11.57	2 dB/10° from WLHS	Cardinal Radial
308.3	56.2	0.143	8.52	Edge of 2 dB/10° (WLHS)	
315.0	64.8	0.123	8.79	WLHS 1 mV/m	Cardinal Radial
324.0	61.9	0.094	7.97	WLHS 1 mV/m	WHSS
336.6	77.2	0.078	8.51	WLHS 1 mV/m	WVXR
358.6	93.4	0.070	9.14	WLHS 1 mV/m	Absolute Minimum

TABLE 6
Louis A. Williams, Jr. & Associates
Cincinnati, Ohio

March 26, 1989

Population within coverage area

itle: PROPOSED READING Coordinates: 39-13-23 84-25-57

1 mV/m

Campbell County, Kentucky

Bellevue City	7,678
Dayton City	6,979
Fort Thomas City	4,636
Newport City	397
Totals for Campbell County (1980 Census):	19,690
Totals for Campbell County (1980 Corr.):	19,689
Totals for Campbell County (1986 Update):	19,307
Totals for Kentucky (1980 Census):	19,690
Totals for Kentucky (1980 Corr.):	19,689
Totals for Kentucky (1986 Update):	19,307

Clermont County, Ohio

r/o Miami Township	829
Totals for Clermont County (1980 Census):	829
Totals for Clermont County (1980 Corr.):	828
otals for Clermont County (1986 Update):	907

Hamilton County, Ohio

Amberley Village	3,442
Anderson Township	22,090
Arlington Heights Village	1,082
Blue Ash City	8,638
Cincinnati City	250,324
Fairfax Village	2,222
Kenwood (CDP)	200
r/o Columbia Township	3,970
Deer Park City	6,745
Elmwood Place Village	2,840
Evendale Village	1,954
Forest Park City	4,564
Glendale Village	2,368
Golf Manor City	4,317
Greenhills City	1,264
Lincoln Heights City	5,259
Lockland City	4,292
Loveland City	245
Madeira City	9,341
Mariemont Village	3,295
unt Healthy City	7,562
wtown Village	1,817
orth College Hill City	11,047
Norwood City	26,342
Reading City	12,843
St. Bernard City	5,396
Sharonville City	7,552

Population within coverage area

itle: PROPOSED READING

Coordinates: 39-13-23 84-25-57

1 mV/m

Hamilton County, Ohio

Silverton City	6,172
Springdale City	3,589
Brentwood (CDP)	5,508
r/o Springfield Township	24,988
Kenwood (CDP)	9,728
Montgomery City	8,379
r/o Sycamore Township	8,490
Montgomery City	1,705
r/o Symmes Township	1,644
Terrace Park Village	943
The Village Of Indian Hill City	5,135
Woodlawn Village	2,715
Wyoming City	8,282
Totals for Hamilton County (1980 Census):	498,289
Totals for Hamilton County (1980 Corr.):	498,277
Totals for Hamilton County (1986 Update):	493,653
Totals for Ohio (1980 Census):	499,118
otals for Ohio (1980 Corr.):	499,105
Totals for Ohio (1986 Update):	494,560
Total Population (1980 Census):	518,808
Total Population (1980 Corr.):	518,794
Total Population (1986 Update):	513,867
Area (Square km):	453.8

LOUIS A. WILLIAMS, JR. & ASSOCIATES
MARCH 1989

TABLE 7

BLANKETING INTERFERENCE CONTOUR

Bearing (Degrees)	ERP (kW)	115 dBu Contour (km)
0.0	0.070	0.10
18.0	0.084	0.11
19.0	0.085	0.11
27.4	0.097	0.12
45.0	0.144	0.15
61.4	0.276	0.21
65.0	0.320	0.22
80.3	0.646	0.32
85.0	0.519	0.28
90.0	0.488	0.28
103.9	0.437	0.26
110.0	0.445	0.26
119.4	0.475	0.27
126.7	0.492	0.28
135.0	0.721	0.33
151.0	1.504	0.48
173.2	0.540	0.29
179.9	0.490	0.28
180.0	0.490	0.28
180.3	0.494	0.28
189.2	0.746	0.34
200.3	0.448	0.26
225.0	0.185	0.17
227.0	0.176	0.17
227.4	0.176	0.17
238.2	0.292	0.21
265.5	1.027	0.40
270.0	0.834	0.36
308.3	0.143	0.15
315.0	0.123	0.14
324.0	0.094	0.12
336.6	0.078	0.11
358.6	0.070	0.10

TABLE 8
Louis A. Williams, Jr. & Associates
Cincinnati, Ohio

March 17, 1989

Site survey program within 15.0 km

itle: PROPOSED READING, OHIO Coordinates: 39-13-23 84-25-57

The nearest FCC monitoring station is 396 km distant at Allegan, MI

This site is 1863 km distant from the US/Mexican border.

This site is 310 km distant from the US/Canadian border.

Type	Call sign	Chan	Auth	Height (m)	Power (kW)	City	State	Bear. (deg)	Dist. (km)
PL						READING	OH	274.9	.36
PL						AMBERLEY	OH	158.5	1.76
PL						ARLINGTON HEIGHTS	OH	245.2	2.14
PL						LOCKLAND	OH	278.6	2.69
PL						LINCOLN HEIGHTS	OH	308.5	3.03
PL						EVENDALE	OH	7.1	3.26
PL						WYOMING	OH	273.4	3.68
PL						GOLF MANOR	OH	204.2	4.03
PL						SILVERTON	OH	139.7	4.33
PL						WOODLAWN	OH	312.9	4.41
PL						DEER PARK	OH	110.5	4.68
PL						BLUE ASH	OH	78.7	4.92
AM	WSAI	1360	LIC	111	5	CINCINNATI	OH	287.8	8.94
AM	WCIN	1480	LIC		5	CINCINNATI	OH	218.0	9.56
AM	WDJO	1230	CP	60	1	CINCINNATI	OH	200.2	12.92
AM	WDJO	1230	LIC	61	1	CINCINNATI	OH	205.2	14.18
FM	WJVS	202	LIC	30	.17	CINCINNATI	OH	11.9	7.50
FM	WOFX	235	APP	322	10.7	FAIRFIELD	OH	252.0	8.20
FM	WBLZ	278	LIC	241	19.3	HAMILTON	OH	304.5	9.88
FM	WAKW	227	LIC	152	26	CINCINNATI	OH	260.0	10.86
FM	WAKW	227	CP	152	50	CINCINNATI	OH	260.0	10.86
FM	WAIF	202	LIC	119	1.60	CINCINNATI	OH	202.9	11.62
FM	WOFX	235	LIC	195	31	FAIRFIELD	OH	325.0	11.99
FM	WLHS	210	LIC	104	.100	WEST CHESTER	OH	27.4	12.07
FM	WVXU	219	LIC	207	23	CINCINNATI	OH	207.9	12.29
FM	WEBN	274	LIC	267	16.6	CINCINNATI	OH	207.9	12.29
FM	WUBE	286	LIC	280	11	CINCINNATI	OH	207.9	12.29
FM	WUBE	286	CP	279	13.8	CINCINNATI	OH	207.9	12.29
FM	WKRQ	270	LIC	267	16.2	CINCINNATI	OH	206.6	13.28
FM	WGUC	215	LIC	268	15	CINCINNATI	OH	215.0	13.41
TV	WCPO-TV	9	LIC	305	316	CINCINNATI	OH	207.9	12.29
TV	W25AI	25	CP	83	.68	CINCINNATI	OH	207.9	12.29
TV	WCET	48	LIC	265	2233	CINCINNATI	OH	207.9	12.29
TV	WKRC-TV	12	LIC	305	316	CINCINNATI	OH	206.6	13.28
TV	WCET	48		326	2240	CINCINNATI	OH	215.2	13.34
TV	WIII	64	LIC	287	1000	CINCINNATI	OH	215.1	13.39
TV	WLWT	5	LIC	305	100	CINCINNATI	OH	215.0	13.41

TABLE 8
Louis A. Williams, Jr. & Associates
Cincinnati, Ohio

March 17, 1989

Site survey program within 15.0 km

itle: PROPOSED READING, OHIO Coordinates: 39-13-23 84-25-57

Type	Call sign	Chan	Auth	Height (m)	Power (kW)	City	State	Bear. (deg)	Dist. (km)
TW	6000 PLAINFIELD RD			61		CINCINNATI	OH	161.2	2.15
TW	2275 GLENDALE MILFOR			30		CINCINNATI	OH	250.5	3.51
TW	4331 ROSSPOAIN RD			37		BLUE ASH	OH	92.5	3.60
TW	4515 SYCAMORE RD			51		CINCINNATI	OH	104.1	4.06
TW	7721 VINE ST			24		CINCINNATI	OH	240.0	4.26
TW	CHESTER & GLENDALE R			90		WOODLAWN	OH	331.4	4.40
TW	4606 NORTHFIELD DR			43		BLUE ASH	OH	72.5	4.53
TW	910 REILLY ROAD			42		WYOMING	OH	282.8	4.75
TW	2212 LANGDON FARM RD			56		CINCINNATI	OH	201.5	4.84
TW	100' S. OF RETARDER			40		SHARONVILLE	OH	12.1	5.02
TW				82		CINCINNATI	OH	256.4	5.26
TW				130		CINCINNATI	OH	168.4	5.48
TW				54		CINCINNATI	OH	168.4	5.48
TW	4381 CREEK RD					CINCINNATI	OH	42.4	5.53
TW	6000 PLAINFIELD RD.			61		SILVERTON	OH	148.6	5.64
TW	4360 CREEK RD.			34		CINCINNATI	OH	43.9	5.66
TW	6000 PLAINFIELD RD			91		CINCINNATI	OH	150.1	5.66
TW				21		CINCINNATI	OH	58.0	5.84
TW	POLE MOUNT BOX 500'			15		NORWOOD	OH	186.5	5.90
TW				61		CINCINNATI	OH	179.9	6.29
W	NORTH BEND RD			74		CINCINNATI	OH	255.7	6.64
W	11001 KENWOOD RD			49		BLUE ASH	OH	47.4	6.76
TW				41		CINCINNATI	OH	147.7	6.90
TW	11316 WILLIAMSON RD			93		BLUE ASH	OH	40.1	7.31
TW				68		BLUE ASH	OH	52.2	7.36
TW	6300 CREEK RD			68		BLUE ASH	OH	52.2	7.36
TW	917 W. GALBRAITH RD.			87		CINCINNATI	OH	263.6	7.46
TW	3254 E KEMPER RD			77		CINCINNATI	OH	11.9	7.50
TW	789 WEST GALBRATH ST			61		CINCINNATI	OH	264.8	7.52
TW	917 WEST GALBRAITH R			73		CINCINNATI	OH	263.7	7.53
TW	11252 CORNELL PARK D			90		CINCINNATI	OH	46.8	7.72
TW	11126 DEERFIELD RD.			52		CINCINNATI	OH	49.2	7.81
TW	11161 DEERFIELD RD			46		BLUE ASH	OH	51.4	7.84
TW				46		CINCINNATI	OH	44.6	7.86
TW	11023 ASHBURN ROAD			51		FOREST PARK	OH	319.3	8.03
TW	STATE ROUTE 42 & COX			55		PISGAH	OH	137.3	8.16
TW	.15 K, WEST OF WINTO			291		CINCINNATI	OH	252.0	8.20
TW	HAUCK RD. & READINGS			89		SHARONVILLE	OH	18.6	8.30
TW				35		FAIRFAX	OH	163.4	8.63
TW				70		HYDE PARK	OH	176.7	8.68
TW	INDIAN HILL			61		CINCINNATI	OH	121.7	8.71
TW	230' NW OF INT. WELL			36		MONTGOMERY	OH	62.9	8.77
TW				49		CINCINNATI	OH	202.2	8.86
TW	LEXINGTON AVE & MONT			20		NORWOOD	OH	198.0	8.89
T[illegible]	6573 HALEY AVE			30		CINCINNATI	OH	154.9	9.24
[illegible]				127		FAIRFIELD	OH	344.2	9.30
[illegible]				130		CINCINNATI	OH	218.0	9.56

TABLE 8
Louis A. Williams, Jr. & Associates
Cincinnati, Ohio

March 17, 1989

Site survey program within 15.0 km

itle: PROPOSED READING, OHIO Coordinates: 39-13-23 84-25-57

Type	Call sign	Chan	Auth	Height (m)	Power (kW)	City	State	Bear. (deg)	Dist. (km)
TW	1211 W. SHARON ROAD			226		CINCINNATI	OH	304.5	9.88
TW	2046 ADAMS RD			140		MOUNT HEALTHY	OH	278.5	10.74
TW	6275 COLLEGEVIEW PL			98		CINCINNATI	OH	260.0	10.86
TW	9119 CINCINNATI-DAYT			53		WEST CHESTER	OH	9.4	10.91
TW	2820 MAX ST			34		CINCINNATI	OH	207.4	11.61
TW	ALMS HILL APT BLDG 2			84		CINCINNATI	OH	202.9	11.62
TW	4112 GORDON ST			64		CINCINNATI	OH	210.0	11.77
TW				151		FAIRFIELD	OH	325.0	11.99
TW	MACK RD 3 MI S OF HA			105		FAIRFIELD	OH	324.9	12.01
TW	COX RD. US RT. 42			61		ST CHESTER	OH	27.3	12.02
TW	234 GOODMAN STREET			300		CINCINNATI	OH	218.4	12.09
TW	COX RD & SR 42			55		PISGAH	OH	27.4	12.10
TW	3217 CLIFTON AVE.			96		CINCINNATI	OH	220.3	12.15
TW	5538 COLERAIN AVE			59		CINCINNATI	OH	253.4	12.24
TW	9138 COX ROAD			58		PISGAH	OH	27.2	12.29
TW	2345 SYMMES ST			277		CINCINNATI	OH	207.9	12.29
TW	2 MI W OF			41		CINCINNATI	OH	179.7	12.31
TW	2200 VICTORY PARKWAY			77		CINCINNATI	OH	201.7	12.35
TW	UNIV OF OH, SANDERS			101		CINCINNATI	OH	213.9	12.38
TW	2200 VICTORY PARKWAY			87		CINCINNATI	OH	200.8	12.38
W	5528 COLERAIN			90		CINCINNATI	OH	254.0	12.45
W	5538 CALERAIN AVE			61		CINCINNATI	OH	254.3	12.46
TW	64 W MCMILLAN ST.			21		CINCINNATI	OH	213.1	12.68
TW	SANDERS HALL UNIV OF			102		HAMILTON	OH	213.6	12.68
TW	60' E. OF RD. CROSSI			14		DAYTON	KY	186.2	12.69
TW	UNIV OF CINTI-CALHOU			55		CINCINNATI	OH	214.8	12.75
TW	HARTSHORN & CALHOUN			94		CINCINNATI	OH	214.9	12.76
TW	65 W MCMILLAN ST			69		CINCINNATI	OH	213.6	12.78
TW	2145 SCHAPELLE LANE			90		FOREST PARK	OH	300.9	12.84
TW	500' SW INT SINTON &			188		CINCINNATI	OH	204.1	12.88
TW	11021 HAMILTON AVE			116		FOREST PARK	OH	298.6	13.07
TW	12075 HAMILTON AV			8		CINCINNATI	OH	311.4	13.10
TW	HOLLOW LANE/BRANCH H			90		MIAMI TOWNSHIP	OH	80.3	13.16
TW				67		CINCINNATI	OH	203.0	13.17
TW	1906 HIGHLAND AVE			296		CINCINNATI	OH	206.6	13.28
TW	2222 CHICKASAW STREE			290		CINCINNATI	OH	215.0	13.41
TW				178		CINCINNATI	OH	215.0	13.41
TW				178		CINCINNATI	OH	215.0	13.41
TW				24		BELLEVUE	KY	197.0	13.58
TW				94		HAMILTON	OH	300.2	13.66
TW	5TH & VINE STS			190		CINCINNATI	OH	209.8	14.04
TW	ROSSFORD AVE			55		BELLEVUE	KY	188.5	14.09
TW	2300 MONTANA AVE			55		CINCINNATI	OH	238.1	14.10
TW	659 E 6TH ST					CINCINNATI	OH	205.2	14.18
[illegible]	ROSSFORD AVE, WATER			64		FORT THOMAS	KY	188.8	14.29
[illegible]				157		MAUD	OH	15.6	14.45
[illegible]	8139 LAWRENCE DRIVE			152		MAUD	OH	15.6	14.45
TW				147		MAUD	OH	5.3	14.50
TW				36		FT. THOMAS	KY	186.7	14.69
TW	1014 VINE STREET			103		CINCINNATI	OH	208.6	14.70
TW	2.7 MI S OF			65		MASON	OH	41.8	14.71

TABLE 8
Louis A. Williams, Jr. & Associates
Cincinnati, Ohio

March 17, 1989

Site survey program within 15.0 km

.itle: PROPOSED READING, OHIO Coordinates: 39-13-23 84-25-57

Type	Call sign	Chan	Auth	Height (m)	Power (kW)	City	State	Bear. (deg)	Dist. (km)
TW				105		CINCINNATI	OH	208.6	14.72
TW	3.5 M S OF			68		MASON	OH	41.6	14.76
TW	2.8 MI S OF MASON			69		MASON	OH	45.5	14.78
TW				61		WHITE OAK	OH	259.1	14.78
TW	2055 MEMORIAL PARKWA			38		FORT THOMAS	KY	186.5	14.83
AP	CINCINNATI-BLUE ASH			261		CINCINNATI	OH	52.7	4.90
HP	KEELER			177		SHARONVILLE	OH	1.5	6.42
HP	VALLLEY ASPHALT			177		SHARONVILLE	OH	1.6	6.97
HP	MAYS			262		INDIAN HILL	OH	95.7	7.16
HP	ARMREL-BYRNES			265		BLUE ASH	OH	44.4	7.96
HP	UNITED			271		BLUE ASH	OH	45.4	8.84
HP	GALLENSTEIN			256		INDIAN HILL	OH	113.2	9.63
HP	MAYS			155		CINCINNATI	OH	170.2	11.33
HP	HORIZON			149		CINCINNATI	OH	173.1	11.62
HP	CHRIST HOSPITAL			258		CINCINNATI	OH	211.5	13.31
AP	CINCINNATI MUNI AIRP			147		CINCINNATI	OH	174.9	13.38

TABLE 9
Louis A. Williams, Jr. & Associates
Cincinnati, Ohio

February 19, 1989

FM Spacing study

itle: PROPOSED READING, OHIO
Channel 207A (89.3 MHz)
Database: FCC 01/24/89

Latitude: 39-13-23
Longitude: 84-25-57
Safety zone: 26 km

Call City of License	Auth	Licensee name St FCC File no.	Chan Freq	ERP-kW EAH-m	Latitude Longitude	Br-to -from	Dist. (km)	Req. (km)
W06BC	CP	VEARL PENNINGTON	6	.02	38-06-17	157.6	134.2	196
MOUNT STERLING		KY	85.0	75	83-50-52	338.0	-61.8	SHORT
WSYX	APP	TFBA SUB, LTD.	6	100	40-01-02	53.4	150.0	196
COLUMBUS		OH	85.0	298	83-01-11	234.3	-46.0	SHORT
WSYX	LIC	ANCHOR MEDIA, LTD	6	100	40-01-02	53.5	150.0	196
COLUMBUS		OH	85.0	163	83-01-07	234.4	-46.0	SHORT
WRTV	LIC	MCGRAW HILL BCG CO INC	6	100	39-53-59	297.0	169.5	196
INDIANAPOLIS		IN	85.0	302	86-12-02	115.8	-26.5	SHORT
W06AY	CP	J. T. WHITLOCK	6	.07DA	37-35-12	200.5	193.7	196
LEBANON		KY	85.0	61	85-12-15	20.0	-2.25	SHORT
W06BK	CP	SEEWAY BROADCASTERS	6	0DA	41-04-01	17.7	215.3	196
FINDLAY		OH	85.0		83-38-58	198.2	19.34	CLEAR
CNE	LIC	Clermont Northeastern Sc *204B1		3.50	39-07-45	110.0	30.45	48
Batavia		OH BLED-1258	88.7	49	84-06-05	290.2	-17.5	SHORT
SHARE TIME OPERATION WITH WOBO, BATAVIA, OH.								
WOBO	LIC	Wcne Educational Communi *204B		15.5DA	39-03-43	121.7	34.06	69
Batavia		OH BLED-880202KB	88.7	142	84-05-50	301.9	-34.9	SHORT
SHARE TIME OPERATION WITH WCNE, BATAVIA, OH.								
WCSU-FM	LIC	Central State University *205A		1	39-42-57	41.0	72.81	27
Wilberforce		OH BLED-880502KD	88.9	53	83-52-27	221.4	45.81	CLEAR
WLMH	LIC	Little Miami Local Schoo *206A		.10	39-20-51	61.4	29.00	64
Morrow		OH BLED-831024AF	89.1	14	84-08-13	241.5	-35.0	SHORT
WUSO	LIC	Bd. of Directors of Witt *206D		.01	39-56-09	33.7	95.42	
Springfield		OH BLED-791024AC	89.1		83-48-43	214.1		
NEW	CP	Xavier University *207B1		4.20	39-52-08	336.6	78.23	138
Richmond		IN BPED-870217MD	89.3	57	84-47-47	156.4	-59.8	SHORT
Cut-off 12/29/87								
WVXC	LIC	Xavier University *207A			39-20-45	82.3	108.3	105
Chillicothe		OH BLED-880517KA	89.3	107	83-11-15	263.1	3.281	CLOSE
VERTICAL POLARIZATION ONLY								
PL	LIC	Louisville Free Public L *207C1		100	38-14-40	227.0	158.4	196
ouisville		KY BLED-7838	89.3	72	85-45-27	46.2	-37.6	SHORT