

**Engineering Statement
In Support of an
Application for a Construction Permit
KMAJ(FM), Shawnee, Kansas**

KMAJ Terrain-Contour Study

Reference Coordinates:

North Latitude: 39-00-45

West Longitude: 95-01-46

Azimuth °T.	ERP = 90 kW Ave. Elev. 3 to 16 km	FM - 2-6 Tables Effective Antenna Height		F(50-50) Distance to 70 dBu Contour	F(50-50) Distance to 60 dBu Contour
	Meters AMSL	Meters AAT	ERP (dBk)	km	km
0	253.5	311.5	19.542	50.8	73.2
5	247.1	317.9	19.542	51.3	73.7
10	259.8	305.2	19.542	50.4	72.8
15	266.9	298.1	19.542	49.9	72.2
20	270.2	294.8	19.542	49.7	72.0
25	277.9	287.1	19.542	49.2	71.4
30	283.8	281.2	19.542	48.8	70.8
35	284.2	280.8	19.542	48.8	70.8
40	282.6	282.4	19.542	48.9	71.0
45	281.0	284.0	19.542	49.0	71.1
50	279.8	285.2	19.542	49.1	71.2
55	279.0	286.0	19.542	49.2	71.2
60	275.5	289.5	19.542	49.4	71.5
65	267.8	297.2	19.542	49.9	72.1
70	259.8	305.2	19.542	50.4	72.8
75	257.7	307.3	19.542	50.6	72.9
80	263.8	301.2	19.542	50.2	72.5
85	267.2	297.8	19.542	49.9	72.2
90	262.6	302.4	19.542	50.3	72.5
95	262.7	302.3	19.542	50.3	72.5
100	261.5	303.5	19.542	50.3	72.6
105	261.4	303.6	19.542	50.3	72.6
110	264.2	300.8	19.542	50.1	72.5
115	262.6	302.4	19.542	50.3	72.5
120	260.1	304.9	19.542	50.4	72.8
125	263.3	301.7	19.542	50.2	72.5
130	263.1	301.9	19.542	50.2	72.5
135	272.5	292.5	19.542	49.6	71.8
140	274.8	290.2	19.542	49.4	71.6
145	278.6	286.4	19.542	49.2	71.3
150	276.4	288.6	19.542	49.3	71.4
155	274.1	290.9	19.542	49.5	71.7

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ERP = 90 kW		FM - 2-6 Tables		F(50-50)	F(50-50)
Azimuth °T.	Ave. Elev.	Effective Antenna Height	ERP (dBk)	Distance to	Distance to
	3 to 16 km Meters AMSL			70 dBu Contour km	60 dBu Contour km
160	271.8	293.2	19.542	49.6	71.8
165	275.0	290.0	19.542	49.4	71.6
170	273.9	291.1	19.542	49.5	71.7
175	277.0	288.0	19.542	49.2	71.4
180	269.9	295.1	19.542	49.7	72.0
185	267.1	297.9	19.542	49.9	72.2
190	267.3	297.7	19.542	49.9	72.2
195	262.9	302.1	19.542	50.2	72.5
200	260.1	304.9	19.542	50.4	72.8
205	254.0	311.0	19.542	50.8	73.2
210	255.3	309.7	19.542	50.7	73.1
215	254.2	310.8	19.542	50.8	73.2
220	249.3	315.7	19.542	51.1	73.5
225	245.5	319.5	19.542	51.3	73.9
230	252.6	312.4	19.542	50.9	73.3
235	250.7	314.3	19.542	51.0	73.5
240	254.2	310.8	19.542	50.8	73.2
245	258.1	306.9	19.542	50.6	72.9
250	259.1	305.9	19.542	50.5	72.8
255	261.9	303.1	19.542	50.3	72.6
260	263.0	302.0	19.542	50.2	72.5
265	263.7	301.3	19.542	50.2	72.5
270	266.1	298.9	19.542	50.0	72.3
275	272.5	292.5	19.542	49.6	71.8
280	278.8	286.2	19.542	49.2	71.3
285	278.9	286.1	19.542	49.2	71.3
290	277.4	287.6	19.542	49.2	71.4
295	275.9	289.1	19.542	49.3	71.5
300	276.1	288.9	19.542	49.3	71.5
305	277.4	287.6	19.542	49.2	71.4
310	279.6	285.4	19.542	49.1	71.2
315	280.4	284.6	19.542	49.0	71.1
320	283.3	281.7	19.542	48.9	70.9
325	285.3	279.7	19.542	48.7	70.7
330	275.8	289.2	19.542	49.3	71.5
335	268.4	296.6	19.542	49.9	72.1
340	266.1	298.9	19.542	50.0	72.3
345	267.9	297.1	19.542	49.9	72.1
350	264.1	300.9	19.542	50.1	72.5
355	259.9	305.1	19.542	50.4	72.8