

**Engineering Statement  
In Support of an  
Amendment to a Pending Application  
KMAJ(FM), Shawnee, Kansas**

**KRLK Protected/KMAJ Interfering FM Overlap Study**

KRLK.A  
Channel= 299  
Max ERP = 0.85 kW  
RCAMSL = 309 M  
N. Lat = 374150  
W. Lng = 934559

KMAJ.A  
Channel = 299  
Max ERP = 90 kW  
RCAMSL =565 M  
N. Lat = 390045  
W. Lng = 950146

Protected 60 dBu				Interfering 40 dBu				
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
330.0	0.850	53.4	12.9	142.4	90.000	288.0	170.2	39.6
331.0	0.850	53.7	12.9	142.3	90.000	288.0	170.2	39.6
332.0	0.850	54.5	13.0	142.2	90.000	288.1	170.1	39.7
333.0	0.850	56.1	13.2	142.1	90.000	288.2	170.0	39.7
334.0	0.850	58.3	13.4	142.1	90.000	288.3	169.8	39.7
335.0	0.850	60.6	13.7	142.0	90.000	288.4	169.6	39.7
336.0	0.850	63.0	13.9	141.9	90.000	288.4	169.5	39.8
337.0	0.850	65.8	14.2	141.8	90.000	288.6	169.3	39.8
338.0	0.850	68.5	14.4	141.7	90.000	288.7	169.1	39.8
339.0	0.850	70.6	14.7	141.6	90.000	288.8	169.0	39.9
340.0	0.850	72.0	14.8	141.5	90.000	288.8	168.9	39.9
341.0	0.850	72.8	14.9	141.4	90.000	288.9	168.9	39.9
342.0	0.850	73.1	14.9	141.3	90.000	289.0	169.0	39.9
343.0	0.850	73.3	14.9	141.2	90.000	289.1	169.0	39.9
344.0	0.850	73.3	14.9	141.1	90.000	289.2	169.1	39.8
345.0	0.850	73.1	14.9	141.0	90.000	289.3	169.3	39.8
346.0	0.850	72.0	14.8	141.0	90.000	289.3	169.5	39.8
347.0	0.850	69.6	14.6	140.9	90.000	289.4	169.8	39.7
348.0	0.850	66.5	14.2	140.9	90.000	289.4	170.2	39.7
349.0	0.850	64.2	14.0	140.9	90.000	289.4	170.5	39.6
350.0	0.850	63.0	13.9	140.8	90.000	289.5	170.7	39.6
351.0	0.850	62.5	13.9	140.7	90.000	289.6	170.9	39.6
352.0	0.850	61.2	13.7	140.7	90.000	289.6	171.1	39.5
353.0	0.850	59.3	13.5	140.7	90.000	289.6	171.4	39.5
354.0	0.850	57.9	13.4	140.6	90.000	289.7	171.6	39.4
355.0	0.850	56.9	13.3	140.6	90.000	289.7	171.9	39.4
356.0	0.850	56.6	13.3	140.5	90.000	289.8	172.0	39.4
357.0	0.850	56.3	13.2	140.5	90.000	289.8	172.2	39.3
358.0	0.850	55.0	13.1	140.4	90.000	289.9	172.4	39.3
359.0	0.850	53.7	12.9	140.4	90.000	289.9	172.7	39.2
0.0	0.850	52.4	12.8	140.4	90.000	289.9	173.0	39.2
1.0	0.850	50.4	12.5	140.4	90.000	289.9	173.3	39.1
2.0	0.850	48.4	12.3	140.4	90.000	289.9	173.6	39.1
3.0	0.850	46.4	12.0	140.4	90.000	289.9	174.0	39.0
4.0	0.850	46.0	12.0	140.3	90.000	289.9	174.2	39.0
5.0	0.850	45.7	11.9	140.3	90.000	290.0	174.3	39.0
6.0	0.850	45.1	11.8	140.3	90.000	290.0	174.5	38.9
7.0	0.850	44.0	11.7	140.3	90.000	290.0	174.8	38.9
8.0	0.850	43.2	11.6	140.2	90.000	290.0	175.0	38.8
9.0	0.850	43.3	11.6	140.2	90.000	290.1	175.1	38.8
10.0	0.850	43.6	11.6	140.1	90.000	290.1	175.3	38.8