

Engineering Statement
In Support of an Application for
Construction Permit
K264CI 6 Corona, CA
FID No. 138850
BLFT-20160511ABQ

The Corporate Engineering Department of the Crawford Broadcasting Company, on behalf of its subsidiary, Kiertron, Inc. (Kiertron), has prepared this Engineering Statement and associated exhibits to accompany an Application for Construction Permit to change the antenna and directional pattern of translator station K264CI (BLFT-20160511ABQ, FID No. 138850).

Kiertron proposes to change the antenna to a Scala 2XHDCA-5/CV ARRAY and add 8.5 watts of vertical power at the same overall center of radiation of 901.8 meters above mean sea level (AMSL) and 81.1 meters above ground level (AGL), which corresponds to a height above average terrain (HAAT) of 487.8 meters.

Table 1 below shows a channel spacing study from the proposed site for K264CI. This study shows that K264AF (264D) in Guasti, CA is co-channel to the proposed facility. Figure 2 shows that the proposed facility will not produce any prohibited overlap to the K264AF protected 60 dBu contour.

The study shows that KFMB-FM (264B) in San Diego, CA is co-channel to the proposed facility. Figure 3 shows that the proposed facility will not produce any prohibited overlap to the KFMB-FM protected 54 dBu contour.

The study shows that KATJ-FM (264A) in George, CA is co-channel to the proposed facility. Figure 2 shows that the proposed facility will not produce any prohibited overlap to the KATJ-FM protected 60 dBu contour.

The study shows that KAEH (265A) in Beaumont, CA is first-adjacent channel to the proposed facility. Figure 2 shows that the proposed facility will not produce any prohibited overlap to the KAEH protected 60 dBu contour.

The study shows that a new LPFM CP exists for Santa Ana, California (264L1). This CP facility is co-channel to the proposed facility. Figure 2 shows that the proposed facility will not produce any prohibited overlap to the Santa Ana 264L1 protected 60 dBu contour.

The spacing study shows that the proposed facility is short-spaced to second-adjacent channel stations KSWD (262B) and KRTH (266B) in Los Angeles. KSWD produces a field strength of 68.5 dBu at the proposed site. The +40 dB 108.5 dBu maximum contour distance for the proposed facility is 95 meters. This contour falls entirely over the Kiertron-owned site and has no population. Figure 1 shows this contour. Similarly, KRTH produces a field strength of 78.52 dBu at the proposed site. The +40 dB 118.52 dBu contour inclusively also falls over the site and is without population. Based on zero population within these contours, 47 C.F.R. §74.1204(d) of the Commission's Rules applies in the cases of both KSWD and KRTH.

K211DK (211D) in Santa Ana, CA is a 10.6/10.8 MHz short-spacing to the proposed facility. Because the proposed facility will operate with less than 100 watts ERP, in accordance with 47 C.F.R. §74.1204(g) it will not be subject to intermediate frequency separation requirements.

Figure 4 and Table 2 show the proposed composite directional antenna pattern for use by K264CI.

Table 3 is a tabulation of the distances to pertinent contours used in the study for the proposed operation.

Figure 5 shows the proposed 60 dBu contour of K264CI will be completely contained within the licensed 2 mV/m daytime contour and 25-mile radius of station KBRT(AM).

It was concluded that the new proposed operation of K264CI will not cause any harmful interference to any existing stations and will be in full compliance with the Commission's rules.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'W.C. Alexander', is positioned above a horizontal line.

W.C. Alexander, CPBE, AMD, DRB
Director of Engineering
Crawford Broadcasting Company

FM Study for: K264CI				FCC Database Date: 5/5/2016				33-49-45	
Location: CORONA, CA				Channel Class: D				117-38-20	
[*] by HAAT indicates calculated as missing in database.									
Call	City, State		Chan	Cl. Freq	kW	Latitude	Dist.	Required	
Status	Proponent		File Number		HAAT	Longitude	Azm.	Clear (km)	Site

>>>>>>> Study For Channel				264	100.7 MHz	<<<<<<<			
K264AF	GUASTI, CA		264 D	100.7	.250+	34-02-18	32.8	44	
LIC	Fac. No. 87064		BLFT-20141223ABO		206	117-53-21	315.1	-11.2	SHORT
KFMBFM	SAN DIEGO, CA		264 B	100.7	30.0	32-50-17	115.8	125	
LIC	Fac. No. 42117		BMLH-20010717AAF		189	117-14-57	161.6	-9.2	SHORT
KSWD	LOS ANGELES, CA		262 B	100.3	5.40	34-13-35	59.1	67	
LIC	Fac. No. 70038		BLH-20090409AHH		889	118-03-58	318.3	-7.9	SHORT
KRTH	LOS ANGELES, CA		266 B	101.1	51.0	34-13-38	59.2	67	
LIC	Fac. No. 28631		BMLH-20071015AJG		955	118-04-00	318.3	-7.8	SHORT
K211DK	SANTA ANA, CA		211 D	90.1	.010+	33-47-48	3.9	0	
LIC	Fac. No. 83327		BLFT-20020108ACP		713	117-37-22	157.5	3.9	CLOSE
KAEH	BEAUMONT, CA		265 A	100.9	1.50	33-54-29	60.1	47	
LIC	Fac. No. 3727		BLH-20000330ACC		146	116-59-45	81.5	13.1	CLOSE
NEW	SANTA ANA, CA		264 L1	100.7	.041	33-40-40	37.7	24	
CP	Fac. No. 197175		BNPL-20131114BCP		39	118-00-12	243.7	13.7	CLOSE
KATJFM	GEORGE, CA		264 A	100.7	.260	34-36-38	92.5	73	
LIC	Fac. No. 29224		BLH-19921106KA		472	117-17-18	20.3	19.5	CLEAR
Proposed to Mexico as class B on 901003-Accepted by Mexico 910313									
KSAK	WALNUT, CA		211 D	90.1	.001	34-02-18	32.8	0	
LIC	Fac. No. 46740		BLED-20131022ANG		165	117-53-21	315.1	32.8	CLEAR
KSAK	WALNUT, CA		211 D	90.1	.001	34-02-18	32.8	0	
CP	Fac. No. 46740		BPED-20150302ABS		175	117-53-21	315.1	32.8	CLEAR
KBPk	BUENA PARK, CA		211 D	90.1	.019	33-51-35	35.0	0	
LIC	Fac. No. 7742		BLED-1466		3	118-00-53	275.7	35.0	CLEAR
KCLALP	SAN PEDRO, CA		264 L1	100.7	.100	33-45-35	62.5	24	
APP	Fac. No. 197367		BPL-20160404ACW		28	118-18-30	263.1	38.5	CLEAR
KCLALP	SAN PEDRO, CA		264 L1	100.7	.001	33-44-51	64.8	24	
LIC	Fac. No. 197367		BLL-20160217ABV		392	118-19-55	262.2	40.8	CLEAR
KHAY	VENTURA, CA		264 B	100.7	39.0	34-20-55	166.6	125	
LIC	Fac. No. 35848		BLH-19960322KA		369	119-19-57	290.7	41.6	CLEAR
Proposed to Mexico as C 910610-Accepted by Mexico 911015									
KPSIFM	PALM SPRINGS, CA		263 B1	100.5	25.0	33-56-44	114.5	68	
LIC	Fac. No. 35497		BLH-19910314KA		37	116-24-34	83.2	46.5	CLEAR
K264BQ	PALMDALE, CA		264 D	100.7	.010+	34-32-51	95.8	44	
CP	Fac. No. 141254		BMPFT-20151006ACK		650	118-12-57	326.4	51.8	CLEAR

FM Study for: K264CI
Location: CORONA, CA

FCC Database Date: 5/5/2016
Channel Class: D

33-49-45
117-38-20

[*] by HAAT indicates calculated as missing in database.

Call Status	City, State Proponent	Chan File Number	Cl. Freq	kW HAAT	Latitude Longitude	Dist. Azm.	Required Clear (km)	Site
KATYFM LIC	IDYLLWILD, CA Fac. No. 33611	267 BMLH-20071002ACQ	A 101.3	1.55 200	33-43-31 116-44-58	83.2 97.7	29 54.2	CLEAR
KLRD-A CP	YUCAIPA, CA Fac. No. 60144	211 BMXPE-20150506ACV	A 90.1	.850 214	34-02-13 116-58-07	66.1 69.4	10 56.1	CLEAR
KLRD-A LIC	YUCAIPA, CA Fac. No. 60144	211 BXLED-20160120AAB	A 90.1	.850 226	34-02-13 116-58-07	66.1 69.4	10 56.1	CLEAR
KLRD LIC	YUCAIPA, CA Fac. No. 60144	211 BLED-20110919AEY	B 90.1	.600+ 1045	34-03-46 116-53-35	73.7 69.2	15 58.7	CLEAR
KCRW-A LIC	SANTA MONICA, CA Fac. No. 59086	210 BLED-19940824KA	B 89.9	6.80 298	34-07-08 118-23-30	76.6 295.0	15 61.6	CLEAR
KCRW LIC	SANTA MONICA, CA Fac. No. 59086	210 BLED-19810325AF	B 89.9	6.90 338	34-07-08 118-23-30	76.6 295.0	15 61.6	CLEAR
K261AB LIC	NEWHALL, ETC., CA Fac. No. 70039	261 BMLFT-19971222TG	D 100.1	.007+ 597	34-21-00 118-24-25	91.4 309.4	14 77.4	CLEAR
TRANSLATOR FOR KIBB(FM) LOS ANGELES								

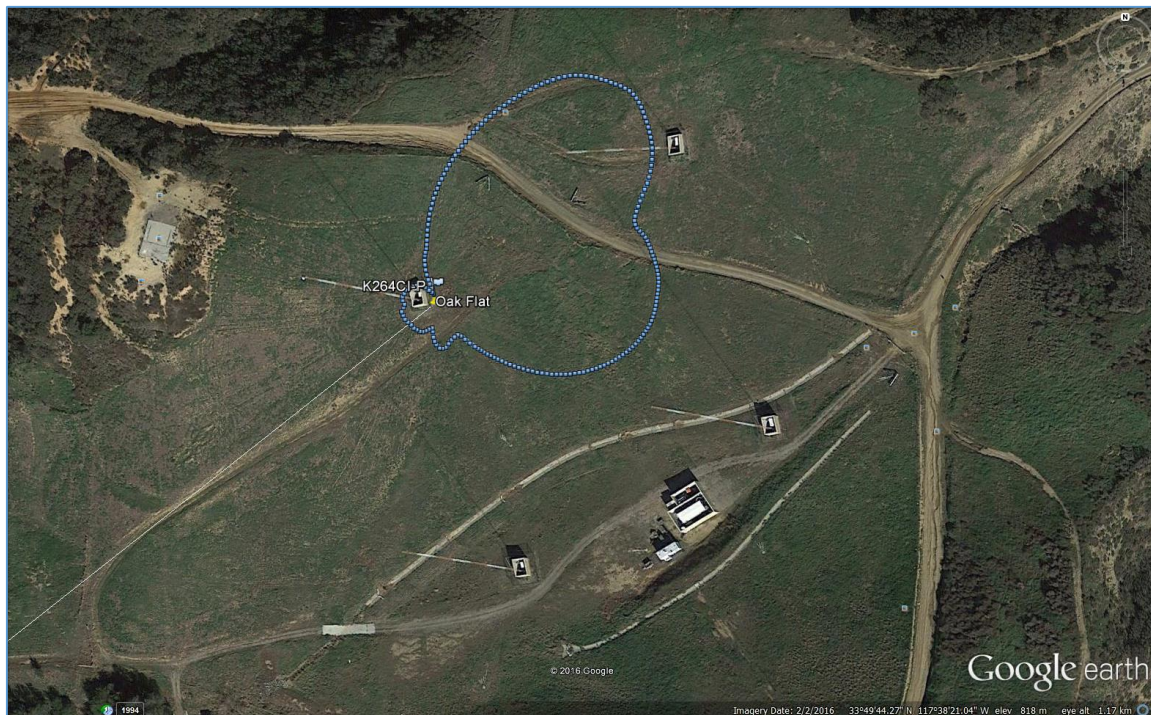


Figure 1 - Aerial View - K264CI-P 108.5 dBu Contour

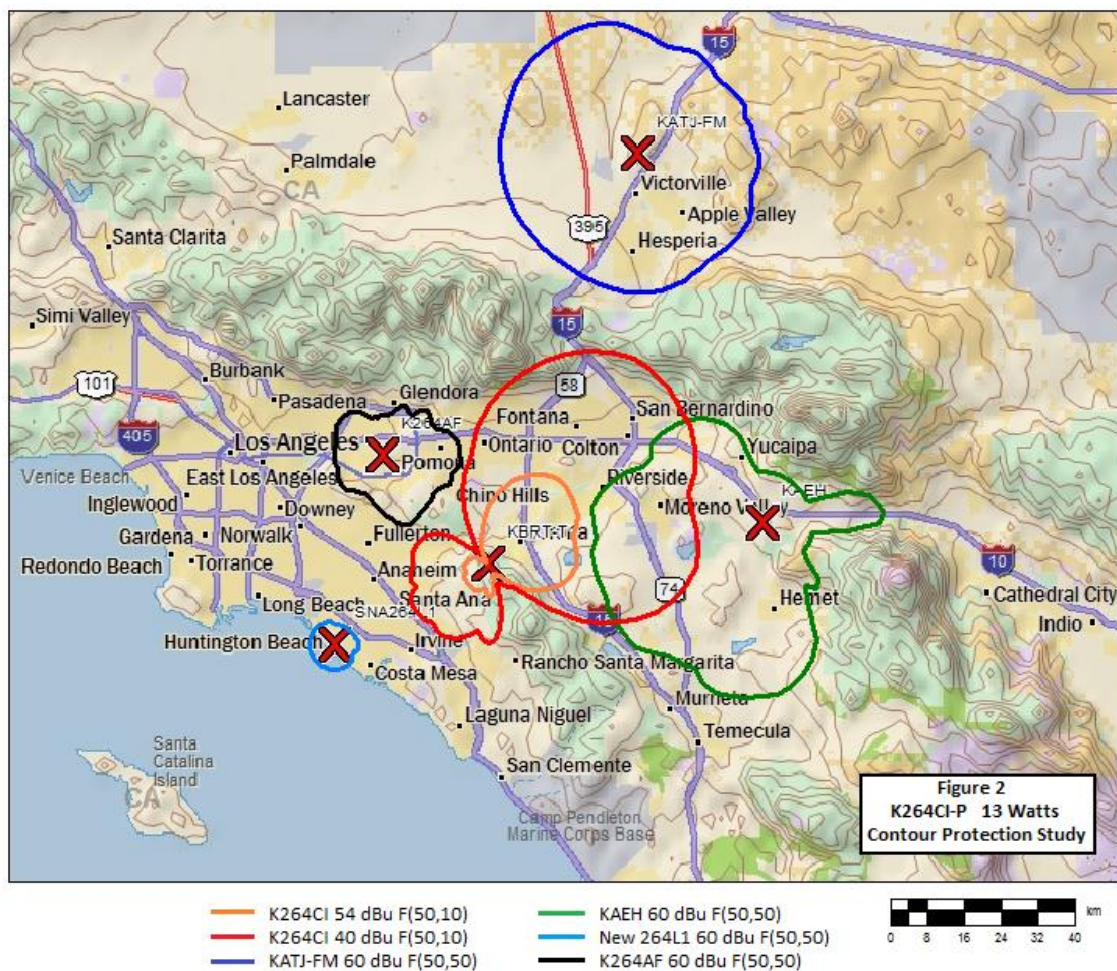


Figure 2 – K264CI-P Contour Protection Study to KATJ-FM, K264AF, KAEH and NEW 264L1

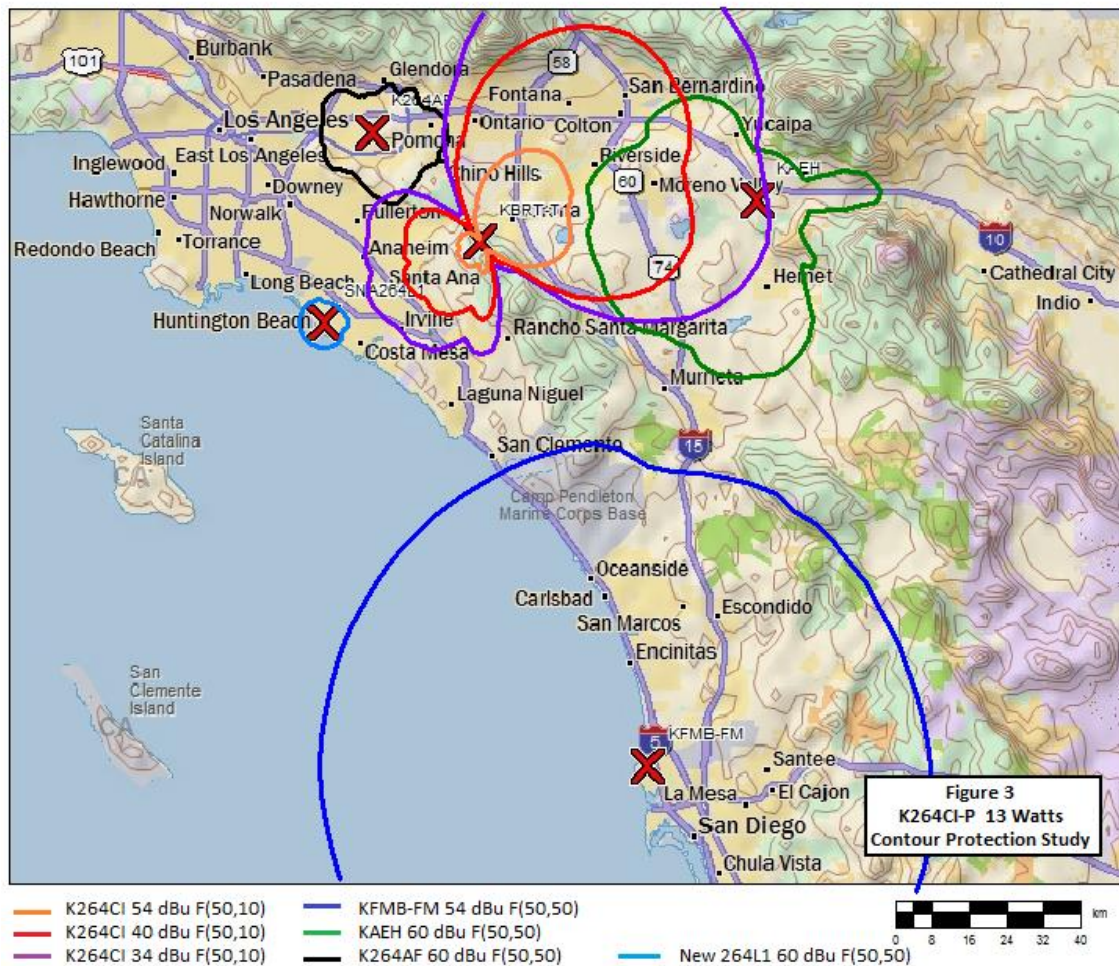


Figure 3 - K264CI-P Contour Protection Study to KFMB-FM, KAEH, NEW 264L1 and K264AF

K264CI-P Composite
Max ERP = 13 Watts
Orientation = 0 Deg.
Max Scale = 1.000
RMS = 0.4801 Field

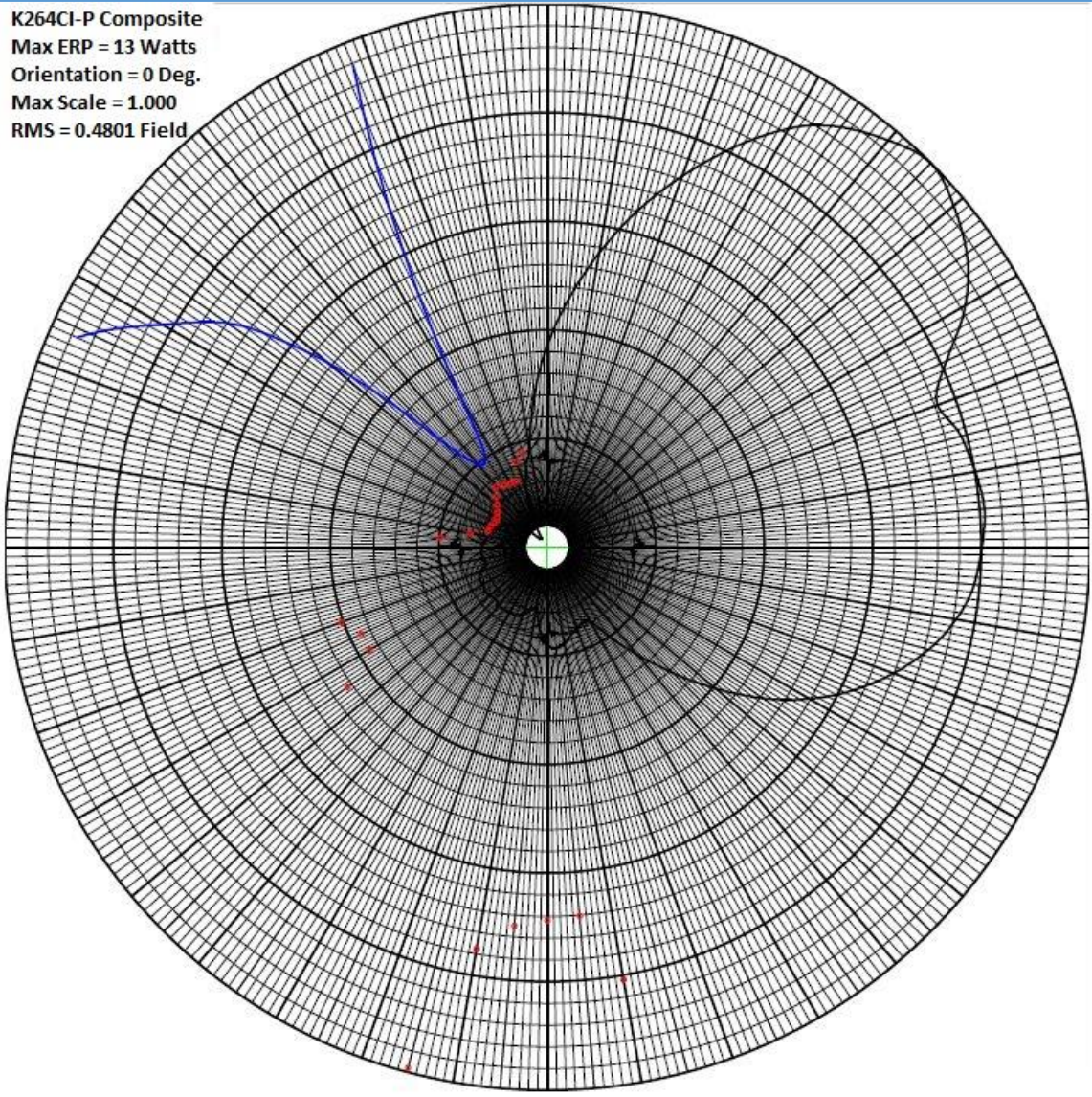


Figure 4 –Composite Directional Antenna Pattern with Protections

Table 2
K264CI-P
Horizontal Plane Pattern
Pattern RMS: .4801 Field

Azimuth	Field	dBk	ERP(kW)	Azimuth	Field	dBk	ERP(kW)
0	0.372	-27.45*	0.00	180	0.180	-33.76	0.00
5	0.460	-25.61*	0.00	185	0.154	-35.11*	0.00
10	0.550	-24.05*	0.00	190	0.113	-37.80*	0.00
15	0.641	-22.72*	0.01	195	0.120	-37.28	0.00
20	0.727	-21.63*	0.01	200	0.130	-36.58	0.00
25	0.812	-20.67	0.01	205	0.138	-36.06	0.00
30	0.890	-19.87	0.01	210	0.138	-36.06	0.00
35	0.944	-19.36	0.01	215	0.140	-35.94	0.00
40	0.978	-19.05	0.01	220	0.139	-36.00	0.00
45	1.000	-18.86	0.01	225	0.135	-36.25	0.00
50	0.978	-19.05	0.01	230	0.139	-36.00	0.00
55	0.944	-19.36	0.01	235	0.140	-35.94	0.00
60	0.890	-19.87	0.01	240	0.138	-36.06	0.00
65	0.812	-20.67	0.01	245	0.138	-36.06	0.00
70	0.765	-21.19	0.01	250	0.130	-36.58	0.00
75	0.790	-20.91	0.01	255	0.116	-37.57	0.00
80	0.801	-20.79	0.01	260	0.121	-37.20	0.00
85	0.809	-20.70	0.01	265	0.121	-37.20	0.00
90	0.801	-20.79	0.01	270	0.121	-37.20	0.00
95	0.790	-20.91	0.01	275	0.116	-37.57	0.00
100	0.765	-21.19	0.01	280	0.112	-37.88	0.00
105	0.728	-21.62	0.01	285	0.107	-38.27	0.00
110	0.679	-22.22	0.01	290	0.101	-38.77	0.00
115	0.623	-22.97	0.01	295	0.093	-39.49	0.00
120	0.558	-23.93	0.00	300	0.082	-40.58*	0.00
125	0.485	-25.15*	0.00	305	0.072	-41.71*	0.00
130	0.405	-26.71*	0.00	310	0.053	-44.38*	0.00
135	0.327	-28.57*	0.00	315	0.028	-49.92*	0.00
140	0.259	-30.59*	0.00	320	0.020	-52.84*	0.00
145	0.202	-32.75*	0.00	325	0.020	-52.84	0.00
150	0.158	-34.89*	0.00	330	0.032	-48.76*	0.00
155	0.154	-35.11	0.00	335	0.069	-42.08*	0.00
160	0.159	-34.83	0.00	340	0.113	-37.80*	0.00
165	0.167	-34.41	0.00	345	0.154	-35.11*	0.00
170	0.181	-33.71	0.00	350	0.190	-33.29*	0.00
175	0.186	-33.47	0.00	355	0.280	-29.92*	0.00

Table 3
FM Contour Distances
K264CI-P 264D

Azi. Deg.	ERP kW	HAAT m	60 dBu (50,50) km	54 dBu (50,10) km	40 dBu (50,10) km	34 dBu (50,10) km
0	0.002	697	7.7	13.3	35.1	49.89
5	0.003	696	9.2	15.5	39.3	54.87
10	0.004	694	10.5	17.5	43.0	59.24
15	0.005	693	11.7	19.3	46.4	63.18
20	0.007	696	12.8	20.9	49.4	66.67
25	0.009	697	13.9	22.3	52.0	69.73
30	0.010	691	14.8	23.3	54.0	71.99
35	0.012	689	15.3	24.1	55.3	73.57
40	0.012	679	15.6	24.3	55.8	74.12
45	0.013	652	15.5	24.1	55.4	73.51
50	0.012	641	15.1	23.5	54.4	72.41
55	0.012	642	14.8	23.1	53.6	71.50
60	0.010	642	14.2	22.4	52.2	69.85
65	0.009	631	13.3	21.1	49.6	66.88
70	0.008	592	12.4	19.6	46.7	63.50
75	0.008	564	12.4	19.4	46.1	62.82
80	0.008	555	12.4	19.4	46.0	62.68
85	0.009	549	12.4	19.3	45.9	62.61
90	0.008	545	12.3	19.1	45.5	62.12
95	0.008	515	11.9	18.3	43.7	60.06
100	0.008	483	11.4	17.3	41.4	57.18
105	0.007	442	10.8	16.0	38.3	53.20
110	0.006	390	9.9	14.2	34.2	48.27
115	0.005	309	8.5	12.2	28.7	40.78
120	0.004	234	7.0	10.1	23.7	33.51
125	0.003	137	5.0	7.1	16.2	23.81
130	0.002	30	2.2	3.0	6.8	9.75
135	0.001	30	2.0	2.7	6.1	8.73
140	0.001	30	1.7	2.4	5.4	7.71
145	0.001	30	1.5	2.2	4.8	6.79
150	0.000	30	1.4	1.9	4.2	6.00
155	0.000	30	1.4	1.9	4.2	5.93
160	0.000	86	2.2	3.2	7.2	10.24
165	0.000	170	2.9	4.5	10.5	14.91
170	0.000	269	3.5	5.7	13.8	20.37
175	0.000	350	3.8	6.4	16.0	23.54

Table 3
FM Contour Distances
K264CI-P 264D

Azi. Deg.	ERP kW	HAAT m	60 dBu (50,50) km	54 dBu (50,10) km	40 dBu (50,10) km	34 dBu (50,10) km
180	0.000	384	3.8	6.4	16.6	24.38
185	0.000	425	3.4	5.9	16.1	23.84
190	0.000	460	2.6	4.8	14.1	21.22
195	0.000	492	2.8	5.1	15.0	22.59
200	0.000	516	3.0	5.5	16.3	24.17
205	0.000	547	3.2	5.8	17.5	25.81
210	0.000	559	3.2	5.8	17.8	26.15
215	0.000	573	3.3	5.9	18.2	26.73
220	0.000	569	3.2	5.9	18.0	26.52
225	0.000	563	3.1	5.7	17.6	25.95
230	0.000	572	3.2	5.9	18.1	26.60
235	0.000	590	3.3	6.0	18.5	27.20
240	0.000	611	3.2	5.9	18.8	27.56
245	0.000	611	3.2	5.9	18.8	27.56
250	0.000	609	3.1	5.7	18.0	26.64
255	0.000	608	2.8	5.1	16.7	25.02
260	0.000	610	2.9	5.3	17.2	25.65
265	0.000	608	2.9	5.3	17.2	25.60
270	0.000	589	2.9	5.3	16.9	25.13
275	0.000	607	2.8	5.1	16.7	25.00
280	0.000	642	2.7	5.0	16.9	25.36
285	0.000	660	2.6	4.8	16.7	25.14
290	0.000	669	2.4	4.6	16.2	24.55
295	0.000	671	2.3	4.3	15.3	23.50
300	0.000	674	2.0	3.8	14.1	21.98
305	0.000	643	1.7	3.4	12.5	19.83
310	0.000	595	1.3	2.5	9.8	15.55
315	0.000	545	0.7	1.4	5.9	9.85
320	0.000	544	0.5	1.0	4.5	7.71
325	0.000	577	0.5	0.9	4.5	7.83
330	0.000	607	0.8	1.5	6.7	11.18
335	0.000	609	1.7	3.2	11.8	18.70
340	0.000	631	2.7	5.1	16.8	25.22
345	0.000	655	3.6	6.6	20.9	30.50
350	0.000	677	4.4	7.8	23.9	34.87
355	0.001	693	6.2	10.7	30.0	43.31



Figure 5 - K264CI-P 60 dBu, KBRT 2 mV/m daytime contour and 25-mile radius.