

VIR JAMES P. C.

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DIRECTIONAL ANTENNAS

AM - FM - TV

APPLICATIONS

PROOFS

FIELD MEASUREMENTS

AUDIO AND RF ENGINEERING

EMERGENCY REPAIR

ENGINEERING STATEMENT

Concerning an amendment to a minor change application for Construction Permit to increase power for station KICA Clovis, New Mexico.

BROADCAST ENTERTAINMENT CORPORATION is the licensee of KICA Clovis, New Mexico, which operates on 980 kHz with 1.4 KW daytime and 172 Watts nighttime using nondirectional antenna (ND-2). This application requests the daytime power to be increased to 50 kW daytime using directional antenna (DA-D). The nighttime 172 Watt secondary operation will remain as licensed.

The applicant has retained Vir James P.C., Broadcast Engineering Consultants to supply the engineering studies and showings for this KICA application.

PROPOSED DAYTIME OPERATION

The proposed KICA 50 kW nondirectional daytime operation will use three 60.4 m tall towers located at the licensed site east of Clovis, New Mexico. The transmitter site is located just south of US Highway 70 & 84 6 km west northwest of Lariat, Texas in Parmer County. The proposed towers are 71 electrical degrees tall. The ground system will consist of 120 equally spaced buried copper radials 76 m long around each tower.

DAYTIME ALLOCATIONS STUDY

The existing broadcast stations on 980 kHz and adjacent channels were studied as required for a complete allocations study. Only adjacent channel KSVP Artesia, New Mexico is close enough to require further study. There is a grandfathered overlap of 0.5 mV/m and 0.25 mV/m contours between KSVP and the licensed KICA. The proposed KICA will reduce the overlap between the KSVP 0.5 mV/m contour and the KICA 0.25 mV/m contour and will reduce the overlap between the KICA 0.5 mV/m contour and the KSVP 0.25 mV/m contour. The proposed and present coverage and interference contours are shown in Exhibit E-6E.

PROPOSED NIGHTTIME OPERATION

The proposed KICA 0.172 kW nondirectional nighttime operation will remain the same as that presently licensed in BL-20030904.

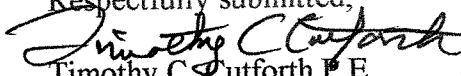
CITY GRADE COVERAGE

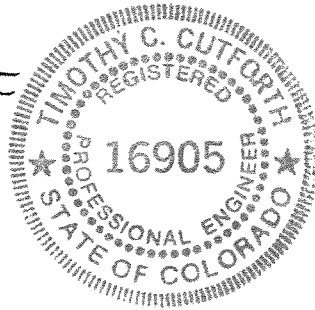
The proposed daytime 5 mV/m and nighttime 11.8 mV/m contours provide full city grade coverage over Clovis. The nighttime secondary operation is not required to provide city grade coverage over Clovis.

SUMMARY

The engineering presented for the proposed KICA 50 kW daytime operation and 0.172 kW nighttime operation have been prepared in compliance with FCC Rules and Regulations in effect as of this date. At the time of the preparation there are no known proposed, authorized, or existing stations that would require additional interference study.

Respectfully submitted,


Timothy C. Cutforth P.E.
15 April 2004



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PROPOSED KICA
BROADCAST ENTERTAINMENT CORPORATION
980 kHz 50 kW/ 0.172 kW DA-D
CLOVIS, NEW MEXICO

KICA 34-20-55 N 102-57-18 W

Twr.No.	Field	Phasing	Spacing	Azimuth	Height
1	1.000	+0.0	0.0	0.0	70.7
2	0.490	-133.0	80.0	20.0	70.7
3	0.530	+125.0	80.0	220.0	70.7

Theo. RMS=2,222.29 mV/m/km RSS=3,040.29 Q= 76.01

STANDARD HORIZONTAL PLANE PATTERN			
Azimuth	mV/m/km	Azimuth	mV/m/km
0	3875.3	180	468.1
5	4002.7	185	422.2
10	4104.9	190	384.4
15	4183.0	195	354.8
20	4237.7	200	331.5
25	4269.9	205	311.3
30	4280.3	210	290.8
35	4269.0	215	267.6
40	4235.9	220	241.4
45	4180.7	225	214.5
50	4102.7	230	192.4
55	4001.2	235	183.2
60	3875.4	240	192.8
65	3724.9	245	219.0
70	3549.9	250	253.6
75	3351.3	255	288.2
80	3130.8	260	316.8
85	2891.4	265	337.0
90	2637.3	270	350.8
95	2374.1	275	366.7
100	2108.5	280	401.0
105	1848.3	285	472.2
110	1602.5	290	591.1
115	1380.2	295	757.0
120	1189.9	300	963.5
125	1038.5	305	1202.3
130	928.1	310	1465.1
135	854.5	315	1743.5
140	807.8	320	2029.6
145	775.4	325	2315.8
150	746.5	330	2595.2
155	713.6	335	2862.0
160	673.6	340	3111.2
165	626.3	345	3339.2
170	573.9	350	3543.3
175	519.9	355	3722.3

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PROPOSED KICA
BROADCAST ENTERTAINMENT CORPORATION
980 kHz 50 kW/ 0.172 kW DA-D
CLOVIS, NEW MEXICO

Vir James Engineers							
Station: KICA 980 kHz 34-20-55 102-57-18							
Distances are from Site to Conductivity Breaks							
AZIMUTH	mS/m	KM	mS/m	KM	mS/m	KM	mS/m KM
0	15	600.0					
5	15	600.0					
10	15	600.0					
15	15	704.0					
20	15	561.9	30	600.0			
25	15	152.2	30	355.2	15	497.1	30 600.0
30	15	50.7	30	425.7	15	460.8	30 600.0
35	15	37.5	30	600.0			
40	15	29.9	30	600.0			
45	15	25.0	30	372.6	15	387.8	30 600.0
50	15	21.6	30	352.1	15	402.1	30 600.0
55	15	19.2	30	330.1	15	410.2	30 600.0
60	15	17.5	30	216.7	15	418.7	30 600.0
65	15	16.9	30	221.8	15	428.8	30 600.0
70	15	16.4	30	230.6	15	442.7	30 566.6
	8	600.0					
75	15	16.0	30	242.0	15	476.4	30 513.9
	15	572.0	8	600.0			
80	15	15.8	30	258.0	15	455.8	30 556.1
	15	600.0					
85	15	15.8	30	284.9	15	420.5	30 564.2
	15	600.0					
90	15	15.8	30	333.5	15	421.3	30 558.9
	15	600.0					
95	15	16.0	30	563.9	15	600.0	
100	15	16.2	30	142.1	15	220.6	30 484.9
	15	560.7	30	600.0			
105	15	16.7	30	76.6	15	222.6	30 419.3
	15	582.8	30	600.0			
110	15	18.8	30	51.5	15	224.1	30 395.8
	15	596.8	30	600.0			
115	15	21.7	30	39.7	15	221.9	30 342.8
	8	377.9	15	600.0			
120	15	25.9	30	26.7	15	216.3	30 313.8
	8	364.6	15	600.0			
125	15	211.2	30	292.7	8	371.4	15 565.7
	8	600.0					
130	15	208.7	30	254.0	15	306.4	8 600.0
135	15	317.1	8	600.0			
140	15	316.6	8	600.0			
145	15	307.1	8	600.0			
150	15	305.2	8	600.0			
155	15	307.7	8	600.0			
160	15	295.3	8	593.9	3	600.0	
165	15	262.5	8	520.9	3	600.0	

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PROPOSED KICA
BROADCAST ENTERTAINMENT CORPORATION
980 kHz 50 kW/ 0.172 kW DA-D
CLOVIS, NEW MEXICO

Vir James Engineers								
Station: KICA 980 kHz 34-20-55 102-57-18								
AZIMUTH	mS/m	KM	mS/m	KM	mS/m	KM	mS/m	KM
170	15	239.5	8	510.8	3	600.0		
175	15	221.8	8	509.4	3	600.3		
180	15	208.0	8	571.8	1.5	600.0		
185	15	197.6	8	583.3	1.5	600.0		
190	15	189.7	8	566.5	1.5	600.0		
195	15	183.8	8	547.1	1.5	600.0		
200	15	180.3	8	493.0	1.5	598.0	4	600.0
205	15	179.0	8	455.0	1.5	510.3	4	600.0
210	15	179.0	8	449.5	4	600.0		
215	15	180.6	8	438.9	4	600.0		
220	15	184.0	8	434.1	4	600.0		
225	15	189.1	8	439.4	4	600.0		
230	15	196.0	8	273.5	4	405.8	8	436.8
	4	600.0						
235	15	188.1	8	204.0	4	600.0		
240	15	168.5	8	212.0	4	591.7	8	600.0
245	15	160.6	8	222.4	4	581.3	8	600.0
250	15	155.5	8	234.0	4	528.7	8	600.0
255	15	151.8	8	247.4	4	582.8	8	600.0
260	15	149.2	8	247.9	15	438.3	8	519.4
	4	604.1						
265	15	144.8	8	237.5	15	431.7	8	499.6
	4	600.0						
270	15	141.6	8	229.6	15	426.4	8	528.6
	4	600.0						
275	15	139.6	8	223.9	15	425.2	8	568.4
	15	600.0						
280	15	140.7	8	220.1	15	428.9	8	595.1
	15	600.0						
285	15	148.3	8	218.1	15	440.0	8	600.0
290	15	164.3	8	216.7	15	522.0	8	600.0
295	15	187.4	8	212.4	15	606.8		
300	15	247.4	2	304.1	4	357.8	15	600.0
305	15	253.1	2	314.4	4	600.0		
310	15	262.9	2	339.9	4	600.0		
315	15	275.7	2	588.1	4	600.0		
320	15	292.0	2	377.3	4	457.4	2	600.0
325	15	302.0	2	375.3	4	497.6	2	600.0
330	15	310.0	2	439.1	4	512.6	2	600.0
335	15	393.0	2	410.6	8	600.0		
340	15	600.0						
345	15	600.0						
350	15	600.0						
355	15	600.0						

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PROPOSED KICA
BROADCAST ENTERTAINMENT CORPORATION
980 kHz 50 kW/ 0.172 kW DA-D
CLOVIS, NEW MEXICO

Station: KICA		Frequency 980 kHz		34-20-55	102-57-18		
Azim	Inverse	25 mV	5 mV	2.0 mV	0.5 mV	.250 mV	.025 mV
(deg)	(mV/m)	(km)	(km)	(km)	(km)	(km)	(km)
0	3875.3	57.4	119.7	169.0	268.2	327.9	550.8
5	4002.7	58.4	121.2	171.1	270.8	330.8	553.8
10	4104.9	59.2	122.4	172.7	272.7	333.0	556.1
15	4183.0	59.8	123.3	173.8	274.1	334.6	557.8
20	4237.7	60.2	123.9	174.6	275.1	335.7	559.0
25	4269.9	60.4	124.2	184.7	316.0	382.6	620.2
30	4280.3	65.4	162.7	236.1	367.4	438.0	691.2
35	4269.0	71.3	168.6	242.0	373.3	445.0	702.9
40	4235.9	74.1	171.1	244.5	375.6	447.5	705.0
45	4180.7	75.4	172.0	245.3	375.1	445.6	702.6
50	4102.7	75.6	171.8	244.8	370.9	436.6	692.9
55	4001.2	75.2	170.8	243.4	365.1	426.7	681.9
60	3875.4	74.2	169.0	233.5	332.7	392.4	642.5
65	3724.9	72.4	166.3	232.9	331.4	390.6	639.6
70	3549.9	70.5	163.0	232.7	329.8	388.4	623.3
75	3351.3	68.0	159.2	229.1	328.6	386.8	610.2
80	3130.8	65.2	154.4	223.4	327.8	385.3	616.8
85	2891.4	62.0	149.2	217.0	328.9	385.5	626.2
90	2637.3	58.2	142.9	209.7	333.0	389.4	627.3
95	2374.1	54.1	136.3	201.4	322.9	391.2	632.9
100	2108.5	49.8	128.6	175.2	275.1	343.7	585.9
105	1848.3	45.2	105.1	145.9	231.3	298.2	531.2
110	1602.5	40.0	91.1	130.4	210.9	273.0	503.1
115	1380.2	34.7	81.5	119.1	196.3	253.0	471.3
120	1189.9	28.5	71.5	107.6	182.2	234.6	446.5
125	1038.5	25.8	66.7	101.5	173.4	222.6	426.1
130	928.1	23.8	63.1	96.7	166.3	212.9	405.9
135	854.5	22.5	60.4	93.2	161.7	205.9	390.7
140	807.8	21.6	58.7	91.1	158.3	202.3	385.9
145	775.4	20.9	57.4	89.4	155.8	199.5	382.3
150	746.5	20.4	56.2	87.8	153.8	196.8	378.7
155	713.6	19.7	54.9	86.2	151.4	193.6	375.2
160	673.6	18.9	53.2	84.0	148.1	190.0	367.9
165	626.3	17.8	51.2	81.1	143.9	185.4	357.7
170	573.9	16.7	48.7	78.0	139.5	179.5	346.8
175	519.9	15.5	46.1	74.3	134.1	173.5	334.8

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PROPOSED KICA
BROADCAST ENTERTAINMENT CORPORATION
980 kHz 50 kW/ 0.172 kW DA-D
CLOVIS, NEW MEXICO

Station: KICA		Frequency 980 kHz		34-20-55	102-57-18		
Azim	Inverse	25 mV	5 mV	2.0 mV	0.5 mV	.250 mV	.025 mV
(deg)	(mV/m)	(km)	(km)	(km)	(km)	(km)	(km)
180	468.1	14.2	43.4	70.7	128.9	166.8	324.2
185	422.2	13.1	40.8	67.2	123.7	161.0	313.8
190	384.4	12.1	38.5	64.2	119.3	155.3	305.0
195	354.8	11.4	36.7	61.6	115.4	151.1	297.9
200	331.5	10.7	35.2	59.5	112.4	147.2	291.3
205	311.3	10.2	33.8	57.6	109.4	143.6	285.9
210	290.8	9.6	32.3	55.5	106.4	140.2	281.0
215	267.6	9.0	30.6	53.0	102.9	135.8	275.0
220	241.4	8.2	28.6	50.1	98.4	130.5	268.8
225	214.5	7.4	26.4	46.9	93.4	124.4	260.8
230	192.4	6.7	24.5	44.1	89.1	119.3	255.0
235	183.2	6.4	23.6	42.8	87.1	116.8	241.1
240	192.8	6.7	24.5	44.2	89.2	119.4	242.1
245	219.0	7.5	26.8	47.5	94.2	125.4	249.7
250	253.6	8.5	29.5	51.5	100.4	132.8	259.8
255	288.2	9.5	32.1	55.2	106.1	139.8	269.7
260	316.8	10.3	34.1	58.1	110.3	144.5	285.7
265	337.0	10.9	35.5	60.0	113.2	147.1	291.0
270	350.8	11.3	36.4	61.2	114.9	148.3	295.6
275	366.7	11.7	37.4	62.7	116.9	149.4	300.2
280	401.0	12.6	39.5	65.5	121.3	153.7	309.4
285	472.2	14.3	43.6	71.0	129.3	162.8	326.7
290	591.1	17.1	49.5	79.1	141.1	177.7	352.4
295	757.0	20.6	56.7	88.4	154.5	195.8	383.4
300	963.5	24.5	64.2	98.3	168.7	214.6	360.2
305	1202.3	28.5	71.6	107.8	182.7	230.7	378.5
310	1465.1	32.5	78.8	116.8	195.5	246.1	396.9
315	1743.5	36.3	85.3	125.2	207.1	259.3	409.0
320	2029.6	39.8	91.3	132.8	218.2	271.9	432.2
325	2315.8	43.1	96.7	140.0	227.9	282.8	449.2
330	2595.2	46.0	101.5	145.9	236.1	292.3	454.6
335	2862.0	48.7	105.8	151.5	244.2	300.6	504.1
340	3111.2	51.0	109.4	155.9	250.7	308.1	527.2
345	3339.2	53.0	112.7	160.3	255.8	313.9	535.3
350	3543.3	54.7	115.4	163.7	260.7	319.3	541.8
355	3722.3	56.1	117.6	166.4	264.9	324.1	546.8