

**TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
NEW (FM)
CALICO ROCK, ARKANSAS
CH 246 C3 4.4KW (MAX-DA) 238M HAAT**

Technical Narrative

Malvern Entertainment Corporation ("Malvern") hereby seeks a Construction Permit ("CP") pursuant to its winning bid in FM Auction #37 (see Public Notice DA 04-3694 released December 1, 2004). Malvern has made the required down payment and believes it has complied with all other requirements needed to obtain a CP for the referenced facility.

The proposed facility will operate with a power of 4.4 kW at 238m HAAT. The proposed facility is fully spaced to all stations, allotments, and applications, with the exception of KXUS, Springfield, MO and KUPH, Mountain View, MO. Malvern proposes a directional antenna to provide contour protection for those stations.

All calculations herein were made using RF Investigator-FM version 2.0.128. A new 61 meter (199') tower will be erected to accommodate the facility. This tower is not required to be registered with the FCC. (See Figure 1 – TOWAIR results.) It is believed that this proposal conforms to all applicable rules and regulations of the FCC.

Proposed Transmitter Location

A map showing the transmitter site location is provided in Figure 2. Malvern proposes use of a directional 3-bay antenna mounted at 55m (180') above ground level. The transmitter site is uniquely described as: 36-06-24 N / 92-18-53 W (NAD27). As can be noted from the topo map in Figure 2, the site lies at 415m AMSL (1360'). Thus, the Center of Radiation Above Mean Sea Level will be 470m (1540').

Interference Concerns

The 115 dBu predicted “blanketing” contour will extend approximately 3.7km from the transmitting site. There is no population within the blanketing contour. Applicant recognizes its responsibility to resolve complaints of interference, including blanketing and receiver-induced interference as required by Sections 73.315(b), 73.316(e), and 73.318.

One Step Upgrade

Malvern proposes to employ the Commission’s “One Step Upgrade” process with respect to this allotment. Figure 3 is an Allocation Study showing the existence of a fully-spaced C3 reference site: 36-00-30 N / 92-17-33 W (NAD-27). Figure 4 is a topo map of this site. Figure 5 is a contour map which shows that this site would provide city-grade coverage to the community of license.

Coverage Contours

The predicted coverage contours for the proposed operation were calculated by employing the USGS 03-second terrain database in accordance with Section 73.313. The average terrain elevations from 3 to 16 kilometers along 8 radials evenly spaced at 45-degree intervals were obtained from the USGS 03-second terrain database. Figure 6 shows the height above average terrain data. The average elevation was calculated at 232.1 meters. Because the transmitter site lies at 415 meters above sea level, it is 183 meters above average terrain. With the antenna center of radiation at 55 meters above ground level, that places the HAAT at 238 meters ($183 + 55$).

The terrain elevations were then used in combination with the effective radiated power for determining the distance to the coverage contours. Figure 7 shows the distance to contour values using 360 evenly spaced radials.

A contour coverage map is shown in Figure 8. The FCC predicted 70 dBu coverage contour encompasses 100% of the Calico Rock, Arkansas city limits, thus establishing compliance with the community coverage requirement. Figure 9 is a line of sight graph from the proposed site to the community of license.

Allocation Study

Figure 10 is an allocation study for Channel 246 C3 at the proposed site. The proposed site meets the FCC's minimum separation requirements in accordance with Section 73.207(b) to all assignments and stations with the exception of KXUS, Springfield, MO

and KUPH, Mountain View, MO. Section 73.215 processing is requested toward KXUS and KUPH. The actual separation distance to KXUS is 135.5km; the minimum fully-spaced separation distance is 144km; the minimum short-spaced separation distance is 133km. The actual separation distance to KUPH is 108.66km; the minimum fully-spaced separation distance is 117km; the minimum short-spaced separation distance is 106km. Therefore, Malvern qualifies for short-spaced processing. Figure 11 is a short-spaced contour study, showing the predicted Protected and Interfering contours of NEW (FM), KXUS and KUPH. It is clear from Figure 11 that there will be no overlap between the 54dBu Interfering Contour of NEW (FM) and the 60dBu Protected Contour of KXUS and KUPH. Further, it is clear that there will be no overlap between the 60dBu Protected Contour of NEW (FM) and the 54 dBu Interfering Contour of KXUS. Figure 12 is a “zoom-in” on the area of concern which demonstrates that there will be no overlap between the 60dBu Protected Contour of NEW (FM) and the 54dBu Interfering Contour of KUPH. Figure 13 is the numerical distance to contour output for the assumed maximum facilities of KXUS. Figure 14 is the numerical distance to contour output for the assumed maximum facilities of KUPH. Both Figures 13 and 14 assume maximum facilities for their respective classes since both stations are authorized pursuant to 73.207. The contours were determined by calculating all 360 radials using 3-second terrain data.

Directional Antenna

Malvern proposes to employ a directional antenna in order to protect KUPH and KXUS as discussed above. Figure 15 shows the directional antenna values utilized in all related maps herein. Figure 16 is a relative field pattern.

Environmental Considerations

The proposed facility has been evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level in accordance with OST Bulletin No. 65, *Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*. The power density at the base of the tower was calculated using the appropriate procedure contained in Section 2, Supplement A, *Additional Information for Radio and Television Broadcast Stations*, of the Bulletin. For the calculation, a combined horizontal and vertical polarized effective radiated power of 8.8 kilowatts is employed with a radiation center of 55 meters (180 feet) above ground level. A *Shively* 6800 series 3 bay one-wavelength spaced antenna is proposed. Using this antenna type in the Commission's *FM Model* RFR calculation program, it is calculated that the maximum power density at ground level resulting from this facility is less than $10 \mu\text{W}/\text{cm}^2$. (See Figure 17.) This is less than five percent of the maximum Commission guideline value in an uncontrolled environment for a FM radio station. There are no other known emitters in the nearby vicinity.

Access to the transmitting site will be restricted and appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary, shall be taken to

ensure that the human exposure to radiofrequency radiation will not exceed the FCC guidelines.

Should there be any questions regarding this application, please contact the undersigned.

A handwritten signature in blue ink that reads "Scott A. Gray". The signature is written in a cursive, flowing style.

Scott A. Gray

December 16, 2004

Gray Media Corporation
1031 Hickory Creek Drive
Alexander, AR 72002
501.794.2731
scott@graymediacorp.com

FIGURE 1: TOWAIR Results

TOWAIR Determination Results

DETERMINATION Results

Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided. However, because the airport database we use is updated periodically, it does not take into account the most recent airport construction, nor does it include proposed airports. You still must register with the FCC if your structure is located near one of these airports or if the FAA specifically asks you to register.

Your Specifications

NAD83 Coordinates

Latitude	36-06-24.0 north
Longitude	092-18-54.0 west

Measurements (Meters)

Overall Structure Height (AGL)	61
Support Structure Height (AGL)	0
Site Elevation (AMSL)	415

Structure Type

TOWER - Free standing or Guyed Structure used for Communications Purposes

[Tower Construction Notification](#)

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

Note: Notification does NOT replace [Section 106 Consultation](#).

CLOSE WINDOW

NEW (FM) - CH 246 C3
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Allocation Study at
Reference Site

N 36:00:30 / W 92:17:33

Figure 3

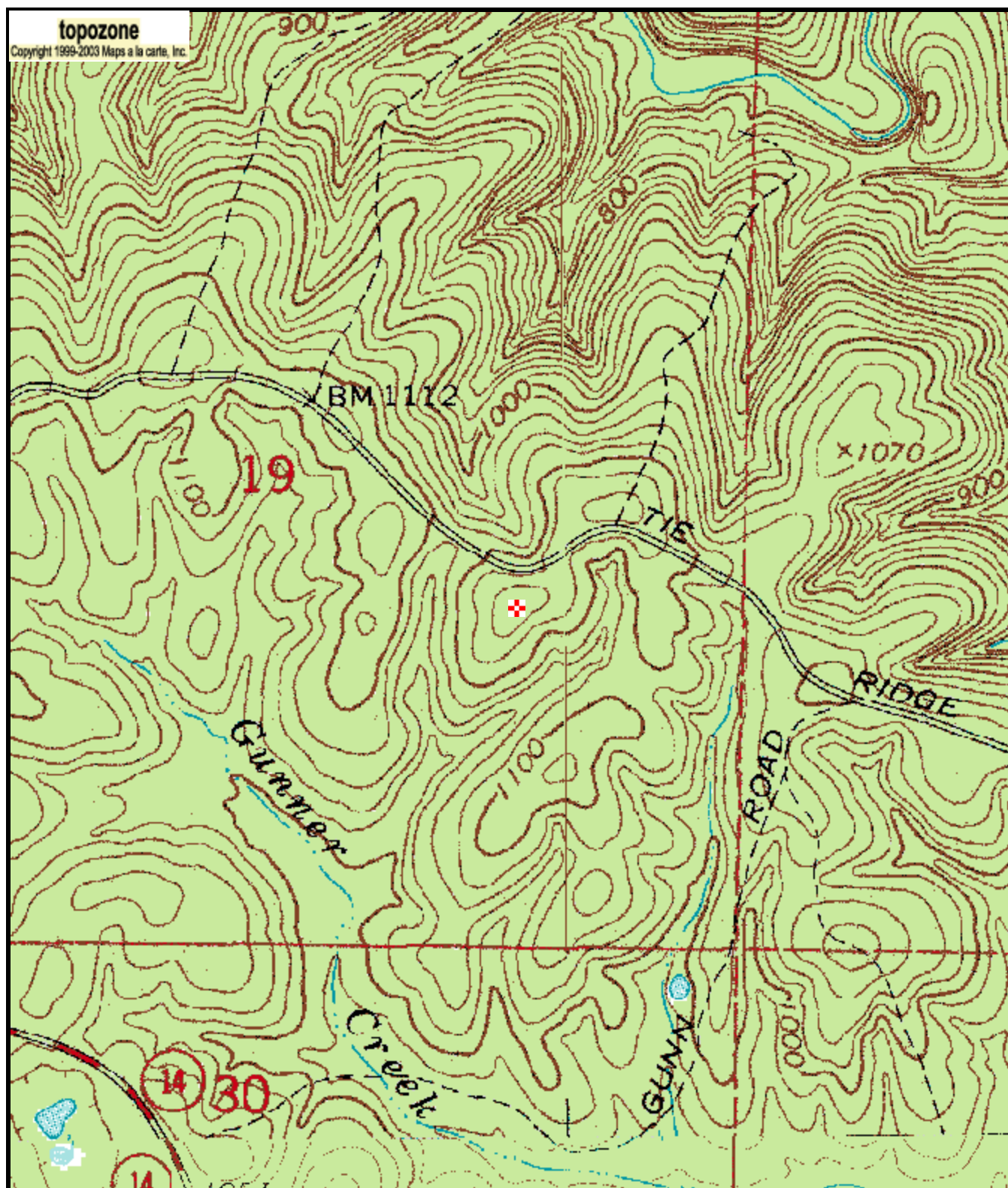
Note	Callsign	Latitude (NAD27)	Longitude (NAD27)	City	State	Channel	Class	Status	Dist.(km)	Req'd Min	Clearance	ERP	HAAT	Bearing
1 NEW		N36:07:49	W092:18:42	CALICO ROCK	AR	246 : 97.1 MHz	A	APP	13.64	142	-128.36	0.0	0	353
2 STAT:VAC		N36:05:01	W092:09:26	CALICO ROCK	AR	246 : 97.1 MHz	A	VAC	14.78	142	-127.22	0.0	0	56
1 NEW		N35:51:12	W092:23:53	CALICO ROCK	AR	246 : 97.1 MHz	A	APP	19.66	142	-122.34	0.0	0	209
	KUPH	N36:59:29	W091:47:41	MOUNTAIN VIEW	MO	245 : 96.9 MHz	C2	LIC	117.85	117	0.85	50.0	150	22
	KXUS	N37:11:10	W093:01:23	SPRINGFIELD	MO	247 : 97.3 MHz	C1	LIC	146.13	144	2.13	100.0	177	333
	WHRK	N35:13:23	W090:02:33	MEMPHIS	TN	246 : 97.1 MHz	C1	LIC	221.70	211	10.70	100.0	162	113
	KWLR	N34:53:33	W092:24:50	MAUMELLE	AR	245 : 96.9 MHz	A	LIC	124.29	89	35.29	4.6	115	185
	KOKR	N35:29:16	W091:26:13	NEWPORT	AR	244 : 96.7 MHz	C2	LIC	96.56	56	40.56	40.0	167	127
	KJSM-FM	N35:22:53	W091:31:30	AUGUSTA	AR	249 : 97.7 MHz	C2	LIC	98.31	56	42.31	28.0	198	135
	NEW	N35:37:47	W092:14:10	FAIRFIELD BAY	AR	247 : 97.3 MHz	DX	APP	42.32	0	42.32	0.0	0	173
	NEW	N35:37:47	W092:14:10	FAIRFIELD BAY	AR	246 : 97.1 MHz	DX	APP	42.32	0	42.32	0.0	0	173
	STAT:RSV	N35:10:36	W091:23:49	AUGUSTA	AR	249 : 97.7 MHz	C1	RSV	122.89	76	46.89	0.0	0	139
	KJSM-FM	N35:10:36	W091:23:49	AUGUSTA	AR	249 : 97.7 MHz	C1	CP	122.89	76	46.89	100.0	189	139
	KMMY	N35:15:35	W095:25:52	MUSKOGEE	OK	246 : 97.1 MHz	C	LIC	296.19	237	59.19	100.0	380	254
	NEW	N35:46:28	W091:41:15	BATESVILLE	AR	247 : 97.3 MHz	DX	APP	60.47	0	60.47	0.1	0	115
	STAT:ADD	N35:15:35	W095:25:52	MUSKOGEE	OK	246 : 97.1 MHz	C0	ADD	296.19	226	70.19	0.0	0	254
	KDEW-FM	N34:25:52	W091:26:08	DE WITT	AR	247 : 97.3 MHz	C2	LIC	191.59	117	74.59	50.0	83	156
	KSPW	N36:57:16	W093:17:22	SPARTA	MO	243 : 96.5 MHz	C2	LIC	137.86	56	81.86	50.0	150	320
	KOEA	N36:35:20	W090:49:10	DONIPHAN	MO	248 : 97.5 MHz	C2	LIC	147.17	56	91.17	40.0	176	64
	KSHJ-LP	N35:08:51	W092:32:09	CONWAY	AR	243 : 96.5 MHz	L1	CP	98.02	0	98.02	0.0	31	193

1 Engineering proposals from Auction 37.

2 Vacant Allocation reserved for subject station.

Database Date: DEC 10 2004

FIGURE 4: Reference Site



0 0.1 0.2 0.3 0.4 0.5 km
0 0.09 0.18 0.27 0.36 0.45 mi
Map center is 36° 00' 30"N, 92° 17' 33"W (NAD27)
Norfolk SE quadrangle
Projection is UTM Zone 15 NAD83 Datum

M
G
M=1.613
G=0.416

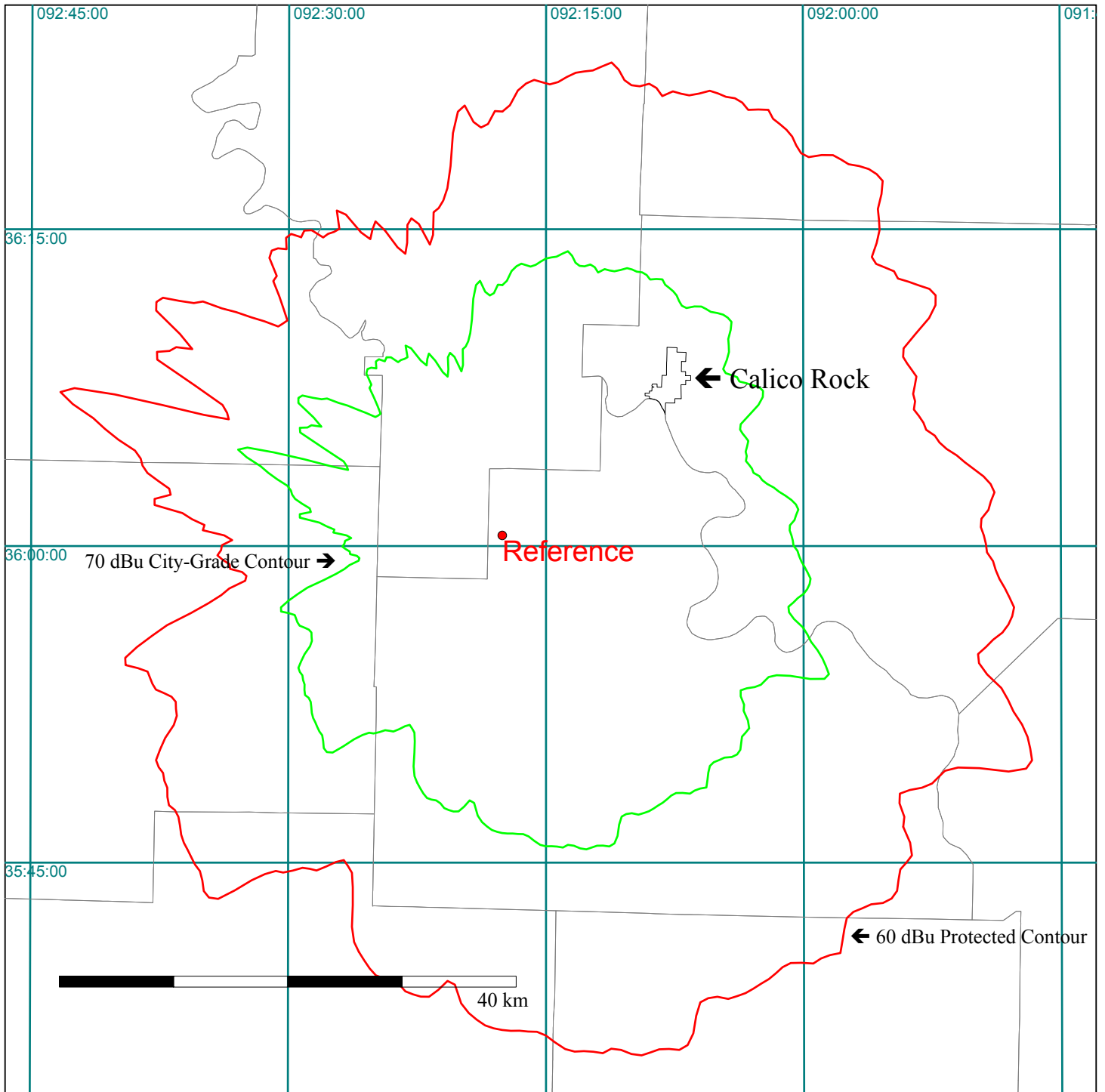
NEW (FM) Ch 246 C3

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FIGURE 5

Contour Coverage Map from Reference Site

36:00:30 N / 92:17:33 W



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Channel 246 C3
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Figure 6
Terrain Data

NEW (FM)	Site Latitude 36-06-24 N	Site Longitude 92-18-53 W	Radials Used 8
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Site Elevation: 415m	Rad Center: 470m AMSL	Data Source: USGS 3-Sec DEM(DMA)
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Bearing Degrees <u>True</u>	Average Height 3.0 to 16.0 km <u>meters</u>	Antenna Height HAAT <u>meters</u>	Min Height AMSL <u>meters</u>	Max Height AMSL <u>meters</u>
0	185.4	284.6	108.6	307.3
45	183.4	286.6	102.4	242.6
90	161.9	308.1	94.5	255.6
135	283.7	186.3	213.0	334.6
180	282.7	187.3	213.0	351.4
225	306.5	163.5	213.2	365.0
270	238.4	231.6	122.2	335.0
315	215.1	254.9	118.0	395.4
Average 8 radials:	232.1	237.9		

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Figure 7:
Distances to Contours

'ID'	'Site Latitude'	'Site Longitude'	'Site HAT'
NEW (FM)	36-06-24 N	92-18-53 W	232.1
'Antenna'	'Radials Used'	'Antenna AMSL'	ERP (kW)
Directional	360	470	4.4
	70dBu (F 50:50)	60dBu (F 50:50)	54 dBu (F 50:10)
<u>'Bearing'</u>	<u>'To-Contour (km)'</u>	<u>'To-Contour (km)'</u>	<u>'To-Contour (km)'</u>
0	19.241	33.214	49.952
1	18.988	32.800	49.370
2	18.882	32.633	49.137
3	18.866	32.618	49.117
4	18.798	32.513	48.976
5	18.700	32.360	48.764
6	18.386	31.840	48.015
7	18.168	31.477	47.501
8	17.975	31.168	47.049
9	17.826	30.931	46.706
10	17.747	30.808	46.534
11	17.588	30.554	46.171
12	17.415	30.283	45.772
13	17.245	30.014	45.374
14	16.981	29.593	44.751
15	16.974	29.582	44.734
16	17.005	29.633	44.811
17	16.862	29.412	44.486
18	16.671	29.122	44.046
19	16.664	29.111	44.028
20	16.621	29.043	43.923
21	16.546	28.925	43.744
22	16.525	28.887	43.685
23	16.373	28.646	43.327
24	16.313	28.552	43.188
25	16.388	28.670	43.362
26	16.420	28.722	43.443
27	16.449	28.771	43.522
28	16.294	28.529	43.168
29	16.322	28.572	43.232
30	16.420	28.724	43.454
31	16.621	29.033	43.911
32	16.619	29.033	43.921
33	16.593	28.997	43.879
34	16.684	29.134	44.091
35	16.706	29.166	44.140
36	16.667	29.109	44.056
37	16.690	29.143	44.106
38	16.920	29.485	44.619
39	17.047	29.682	44.899
40	17.074	29.725	44.959
41	17.181	29.893	45.203
42	17.330	30.128	45.544

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Figure 7:
Distances to Contours

43	17.450	30.319	45.821
44	17.750	30.796	46.511
45	17.751	30.797	46.514
46	17.915	31.058	46.889
47	18.025	31.235	47.146
48	18.159	31.454	47.465
49	18.425	31.899	48.095
50	18.569	32.143	48.447
51	18.827	32.571	49.078
52	19.027	32.899	49.553
53	19.272	33.303	50.131
54	19.495	33.666	50.649
55	19.587	33.806	50.831
56	19.728	34.025	51.134
57	20.121	34.651	52.046
58	20.432	35.149	52.771
59	20.584	35.379	53.087
60	20.802	35.711	53.561
61	21.071	36.125	54.159
62	21.189	36.298	54.387
63	21.298	36.461	54.599
64	21.416	36.639	54.833
65	21.324	36.482	54.568
66	21.346	36.502	54.572
67	21.478	36.699	54.840
68	21.719	37.056	55.344
69	22.002	37.480	55.947
70	22.357	38.016	56.722
71	22.737	38.579	57.544
72	23.038	39.019	58.178
73	23.207	39.260	58.512
74	23.332	39.433	58.740
75	23.470	39.628	58.998
76	23.673	39.914	59.400
77	24.017	40.406	60.119
78	24.366	40.908	60.856
79	24.694	41.369	61.535
80	25.079	41.911	62.338
81	25.472	42.464	63.169
82	26.035	43.242	64.361
83	26.122	43.364	64.560
84	26.068	43.288	64.436
85	26.137	43.386	64.597
86	26.171	43.433	64.675
87	26.116	43.356	64.548
88	26.114	43.353	64.543
89	26.101	43.335	64.513
90	26.087	43.315	64.481
91	26.033	43.239	64.355
92	25.945	43.116	64.155
93	25.876	43.020	64.000
94	25.681	42.748	63.566

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Figure 7:
Distances to Contours

95	25.527	42.530	63.223
96	25.365	42.297	62.855
97	25.124	41.949	62.311
98	24.789	41.464	61.566
99	24.256	40.693	60.396
100	23.706	39.906	59.222
101	23.330	39.377	58.444
102	23.151	39.123	58.072
103	22.883	38.745	57.521
104	22.534	38.246	56.792
105	22.296	37.892	56.276
106	22.161	37.689	55.980
107	21.865	37.236	55.322
108	21.569	36.773	54.652
109	21.273	36.292	53.959
110	20.841	35.569	52.929
111	20.616	35.187	52.391
112	20.392	34.798	51.850
113	19.949	34.016	50.815
114	19.545	33.305	49.918
115	19.250	32.788	49.281
116	19.104	32.533	48.970
117	18.998	32.354	48.750
118	19.114	32.550	48.991
119	19.464	33.162	49.741
120	19.448	33.135	49.707
121	19.333	32.932	49.458
122	19.259	32.802	49.298
123	19.317	32.903	49.422
124	19.409	33.065	49.621
125	19.297	32.870	49.381
126	19.432	33.107	49.673
127	19.672	33.527	50.195
128	19.778	33.713	50.430
129	20.042	34.179	51.026
130	20.402	34.816	51.875
131	20.048	34.190	51.040
132	20.039	34.174	51.019
133	20.219	34.494	51.439
134	20.484	34.960	52.074
135	20.555	35.083	52.246
136	20.787	35.478	52.800
137	20.801	35.501	52.832
138	20.988	35.817	53.280
139	21.160	36.105	53.691
140	21.339	36.401	54.115
141	21.663	36.921	54.866
142	21.828	37.178	55.239
143	21.952	37.370	55.517
144	22.024	37.480	55.677
145	22.088	37.578	55.819
146	22.042	37.507	55.717

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Figure 7:
Distances to Contours

147	22.086	37.575	55.815
148	22.215	37.770	56.098
149	22.226	37.787	56.123
150	22.143	37.661	55.940
151	21.776	37.098	55.122
152	21.668	36.930	54.879
153	21.461	36.601	54.403
154	21.190	36.155	53.763
155	21.029	35.886	53.378
156	20.922	35.707	53.123
157	20.873	35.624	53.007
158	20.837	35.563	52.920
159	20.787	35.478	52.800
160	20.827	35.545	52.895
161	20.950	35.754	53.190
162	20.752	35.418	52.716
163	20.442	34.887	51.973
164	20.269	34.581	51.556
165	20.225	34.503	51.453
166	20.118	34.315	51.203
167	20.069	34.227	51.088
168	20.048	34.190	51.041
169	20.040	34.176	51.023
170	19.994	34.094	50.915
171	19.984	34.076	50.893
172	20.016	34.134	50.968
173	20.108	34.297	51.180
174	20.201	34.462	51.397
175	20.102	34.286	51.166
176	19.905	33.937	50.714
177	19.960	34.035	50.840
178	20.072	34.233	51.096
179	20.347	34.719	51.743
180	20.638	35.223	52.442
181	20.540	35.057	52.210
182	20.135	34.344	51.242
183	19.866	33.868	50.626
184	20.019	34.139	50.974
185	20.290	34.618	51.606
186	20.048	34.190	51.040
187	19.757	33.675	50.382
188	19.823	33.793	50.530
189	19.812	33.772	50.504
190	19.718	33.608	50.297
191	19.510	33.243	49.841
192	19.314	32.899	49.417
193	19.051	32.443	48.859
194	19.061	32.460	48.880
195	18.906	32.200	48.559
196	18.682	31.829	48.103
197	18.607	31.705	47.952
198	18.365	31.322	47.477

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Figure 7:
Distances to Contours

199	18.287	31.204	47.325
200	18.304	31.228	47.357
201	18.358	31.311	47.464
202	18.336	31.278	47.421
203	18.247	31.142	47.246
204	18.106	30.929	46.974
205	18.160	31.010	47.078
206	18.071	30.877	46.908
207	17.924	30.657	46.632
208	17.649	30.266	46.121
209	17.576	30.164	45.984
210	17.520	30.088	45.883
211	17.483	30.036	45.815
212	17.391	29.908	45.645
213	17.151	29.576	45.203
214	16.899	29.243	44.742
215	17.019	29.400	44.960
216	17.341	29.838	45.553
217	17.754	30.411	46.316
218	18.009	30.785	46.793
219	18.149	30.995	47.058
220	18.063	30.865	46.893
221	18.370	31.330	47.487
222	18.828	32.070	48.399
223	19.292	32.861	49.370
224	19.568	33.345	49.968
225	19.340	32.945	49.473
226	19.507	33.239	49.836
227	19.516	33.255	49.856
228	19.549	33.312	49.927
229	19.839	33.821	50.566
230	19.949	34.015	50.814
231	19.973	34.058	50.869
232	19.878	33.890	50.654
233	19.856	33.850	50.603
234	19.678	33.537	50.208
235	20.122	34.320	51.211
236	20.270	34.583	51.559
237	20.169	34.405	51.322
238	20.369	34.758	51.796
239	20.567	35.103	52.274
240	20.779	35.464	52.780
241	20.702	35.334	52.598
242	20.410	34.831	51.896
243	20.625	35.203	52.413
244	20.749	35.414	52.709
245	20.905	35.678	53.082
246	21.138	36.068	53.638
247	21.676	36.942	54.895
248	22.379	38.017	56.459
249	22.349	37.972	56.392
250	21.515	36.689	54.531

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Figure 7:
Distances to Contours

251	21.118	36.036	53.592
252	21.069	35.953	53.474
253	21.055	35.930	53.442
254	21.291	36.322	54.001
255	21.709	36.994	54.971
256	22.068	37.548	55.776
257	22.662	38.430	57.060
258	23.051	38.983	57.867
259	23.092	39.040	57.950
260	23.065	39.002	57.895
261	22.944	38.832	57.647
262	22.514	38.218	56.751
263	22.344	37.965	56.382
264	22.535	38.247	56.794
265	22.448	38.119	56.608
266	22.524	38.232	56.772
267	23.007	38.920	57.776
268	23.127	39.090	58.023
269	22.909	38.781	57.573
270	22.994	38.902	57.750
271	23.520	39.645	58.837
272	23.737	39.949	59.285
273	23.683	39.874	59.174
274	23.193	39.183	58.161
275	22.254	37.830	56.185
276	21.344	36.409	54.128
277	20.983	35.810	53.270
278	21.422	36.538	54.313
279	22.124	37.632	55.898
280	22.403	38.053	56.512
281	22.476	38.162	56.670
282	21.963	37.387	55.542
283	21.766	37.083	55.101
284	22.034	37.495	55.699
285	22.133	37.646	55.918
286	21.907	37.301	55.418
287	21.498	36.662	54.491
288	21.358	36.433	54.161
289	21.403	36.506	54.267
290	21.553	36.749	54.617
291	21.784	37.110	55.140
292	22.157	37.683	55.971
293	22.263	37.842	56.204
294	22.124	37.632	55.898
295	22.276	37.863	56.234
296	22.331	37.946	56.354
297	22.592	38.329	56.913
298	23.015	38.931	57.792
299	23.302	39.336	58.385
300	23.276	39.301	58.333
301	23.344	39.395	58.472
302	23.343	39.395	58.471

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Figure 7:
Distances to Contours

303	23.313	39.352	58.408
304	23.146	39.117	58.063
305	22.825	38.662	57.400
306	22.637	38.393	57.007
307	22.655	38.419	57.045
308	22.917	38.792	57.589
309	23.148	39.120	58.067
310	23.260	39.278	58.299
311	23.405	39.482	58.599
312	23.571	39.717	58.942
313	23.673	39.860	59.153
314	23.715	39.918	59.239
315	23.940	40.237	59.712
316	23.972	40.283	59.782
317	23.770	39.997	59.356
318	23.546	39.681	58.890
319	23.366	39.427	58.519
320	23.389	39.459	58.565
321	23.587	39.740	58.975
322	23.665	39.848	59.135
323	23.695	39.891	59.199
324	23.732	39.942	59.275
325	23.779	40.008	59.373
326	23.748	39.965	59.309
327	23.937	40.234	59.707
328	23.914	40.201	59.659
329	24.034	40.372	59.913
330	24.257	40.694	60.397
331	24.352	40.834	60.607
332	24.352	40.834	60.606
333	24.147	40.534	60.157
334	23.843	40.100	59.509
335	23.548	39.682	58.901
336	23.217	39.202	58.219
337	23.020	38.913	57.817
338	22.604	38.313	56.964
339	22.316	37.889	56.371
340	22.292	37.848	56.330
341	22.248	37.782	56.253
342	22.163	37.657	56.091
343	22.037	37.472	55.841
344	21.912	37.291	55.597
345	21.742	37.042	55.255
346	21.678	36.955	55.147
347	21.544	36.762	54.885
348	21.430	36.597	54.663
349	21.425	36.605	54.693
350	21.315	36.445	54.479
351	21.025	35.997	53.844
352	20.808	35.667	53.382
353	20.626	35.392	53.000
354	20.345	34.954	52.384

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Figure 7:
Distances to Contours

355	20.095	34.559	51.829
356	19.937	34.314	51.489
357	19.809	34.117	51.216
358	19.719	33.984	51.034
359	19.514	33.661	50.581

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FIGURE 8

Proposed Contour Coverage Map

4.4kW (MAX-DA) @ 238m HAAT

36:06:24 N / 92:18:53 W

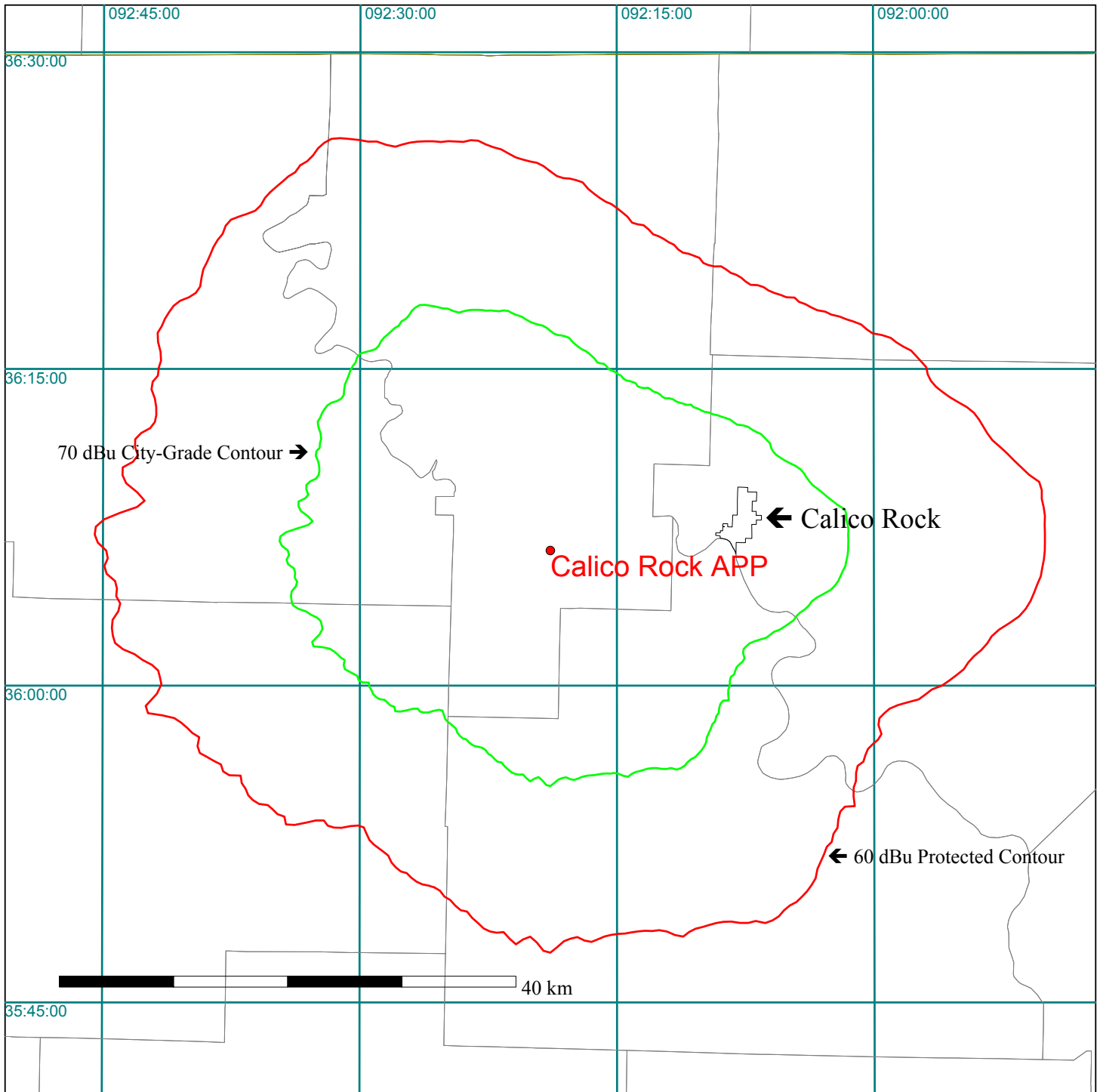
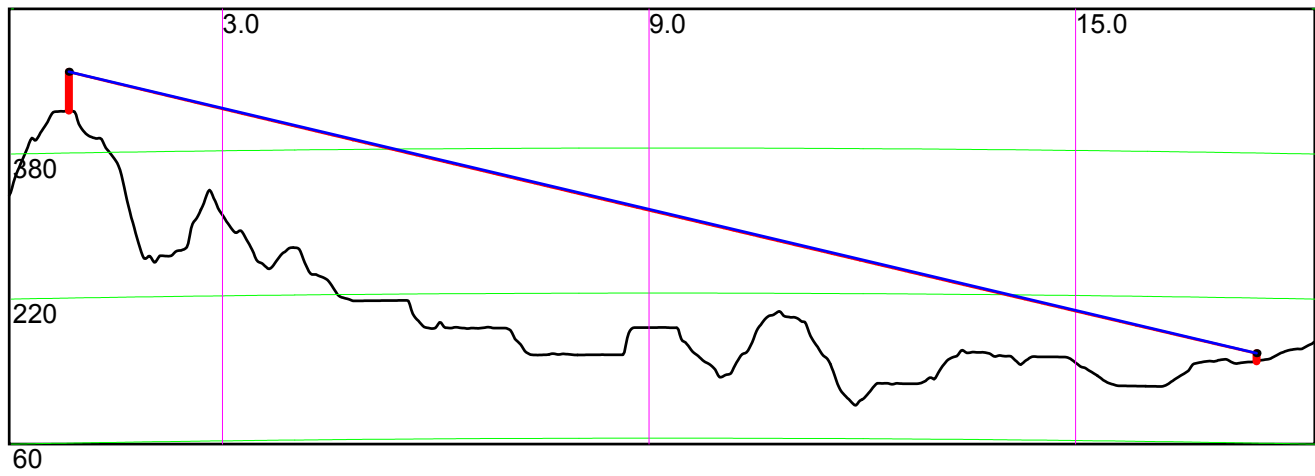


FIGURE 9: Terrain Profile

Antenna to Community of License



NEW (FM) - CH 246 C3
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Allocation Study at
Proposed Site

N 36:06:24 / W 92:18:53

Figure 10

Note	Callsign	Latitude (NAD27)	Longitude (NAD27)	City	State	Channel	Class	Status	Dist.(km)	Req'd Min	Clearance	ERP	HAAT	Bearing
1	NEW	N36:07:49	W092:18:42	CALICO ROCK	AR	246 : 97.1 MHz	A	APP	2.63	142	-139.37	0.0	0	6
2	STAT:VAC	N36:05:01	W092:09:26	CALICO ROCK	AR	246 : 97.1 MHz	A	VAC	14.41	142	-127.59	0.0	0	100
1	NEW	N35:51:12	W092:23:53	CALICO ROCK	AR	246 : 97.1 MHz	A	APP	29.10	142	-112.90	0.0	0	195
3	KXUS	N37:11:10	W093:01:23	SPRINGFIELD	MO	247 : 97.3 MHz	C1	LIC	135.50	144	-8.50	100.0	177	332
4	KUPH	N36:59:29	W091:47:41	MOUNTAIN VIEW	MO	245 : 96.9 MHz	C2	LIC	108.66	117	-8.34	50.0	150	25
	WHRK	N35:13:23	W090:02:33	MEMPHIS	TN	246 : 97.1 MHz	C1	LIC	227.91	211	16.91	100.0	162	115
	KWLR	N34:53:33	W092:24:50	MAUMELLE	AR	245 : 96.9 MHz	A	LIC	135.01	89	46.01	4.6	115	184
	KOKR	N35:29:16	W091:26:13	NEWPORT	AR	244 : 96.7 MHz	C2	LIC	104.93	56	48.93	40.0	167	131
	KJSM-FM	N35:22:53	W091:31:30	AUGUSTA	AR	249 : 97.7 MHz	C2	LIC	107.60	56	51.60	28.0	198	138
	NEW	N35:37:47	W092:14:10	FAIRFIELD BAY	AR	247 : 97.3 MHz	DX	APP	53.39	0	53.39	0.0	0	172
	NEW	N35:37:47	W092:14:10	FAIRFIELD BAY	AR	246 : 97.1 MHz	DX	APP	53.39	0	53.39	0.0	0	172
	STAT:RSV	N35:10:36	W091:23:49	AUGUSTA	AR	249 : 97.7 MHz	C1	RSV	132.50	76	56.50	0.0	0	141
	KJSM-FM	N35:10:36	W091:23:49	AUGUSTA	AR	249 : 97.7 MHz	C1	CP	132.50	76	56.50	100.0	189	141
	KMMY	N35:15:35	W095:25:52	MUSKOGEE	OK	246 : 97.1 MHz	C	LIC	297.36	237	60.36	100.0	380	252
	NEW	N35:46:28	W091:41:15	BATESVILLE	AR	247 : 97.3 MHz	DX	APP	67.54	0	67.54	0.1	0	123
	STAT:ADD	N35:15:35	W095:25:52	MUSKOGEE	OK	246 : 97.1 MHz	C0	ADD	297.36	226	71.36	0.0	0	252
	KSPW	N36:57:16	W093:17:22	SPARTA	MO	243 : 96.5 MHz	C2	LIC	128.34	56	72.34	50.0	150	317
	KDEW-FM	N34:25:52	W091:26:08	DE WITT	AR	247 : 97.3 MHz	C2	LIC	202.37	117	85.37	50.0	83	157
	KOEA	N36:35:20	W090:49:10	DONIPHAN	MO	248 : 97.5 MHz	C2	LIC	144.50	56	88.50	40.0	176	68
	KQMO	N36:44:55	W093:39:32	SHELL KNOB	MO	249 : 97.7 MHz	A	LIC	140.02	42	98.02	2.1	170	301

1 Engineering proposals from Auction 37.

2 Vacant Allocation for subject station.

3 73.215 Short-Spaced processing requested; 133km req'd under 73.215.

4 73.215 Short-Spaced processing requested; 106km req'd under 73.215.

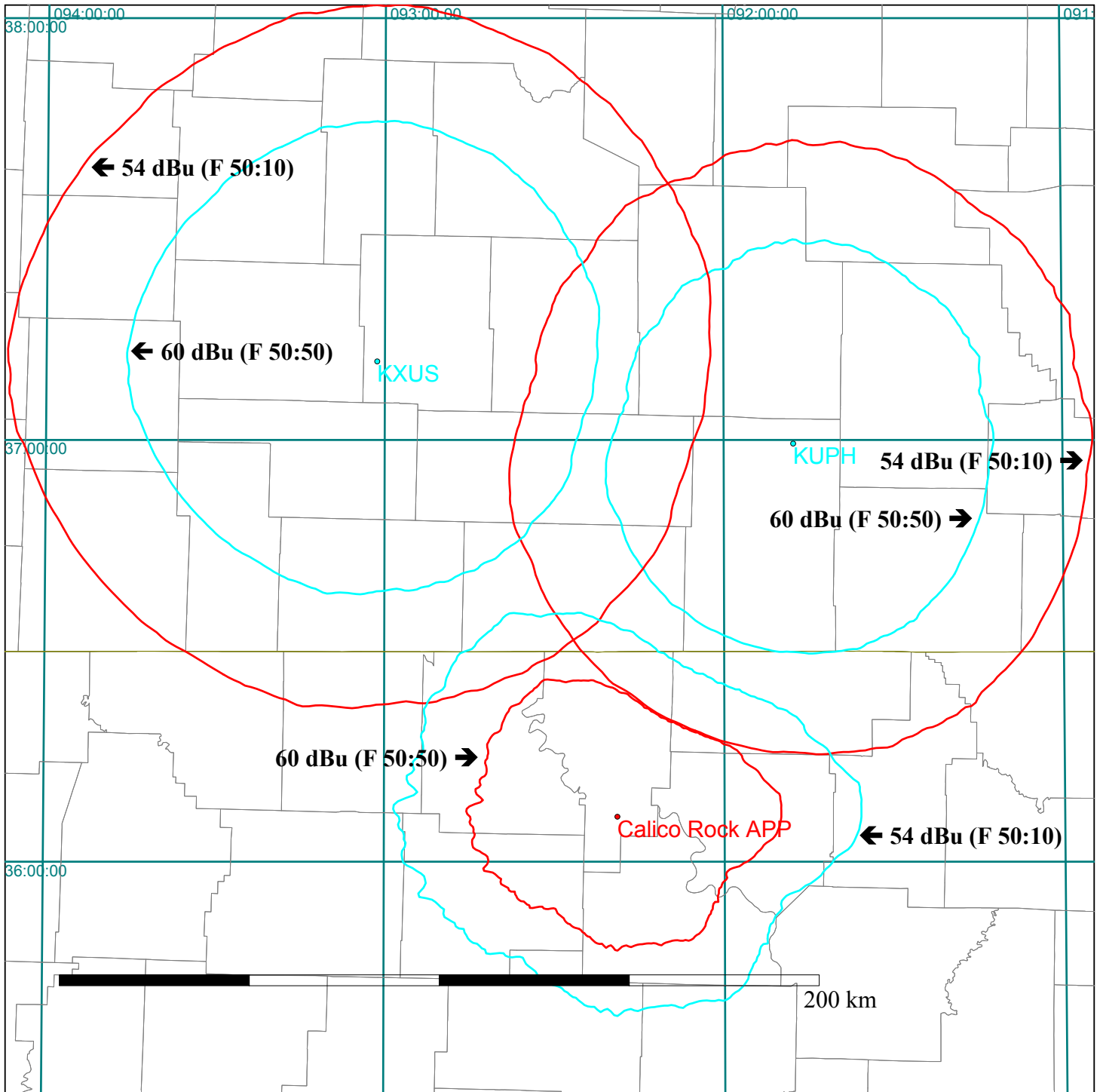
Database Date: DEC 10 2004

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Calico Rock, AR

FIGURE 11

Section 73.215 Allocation Study



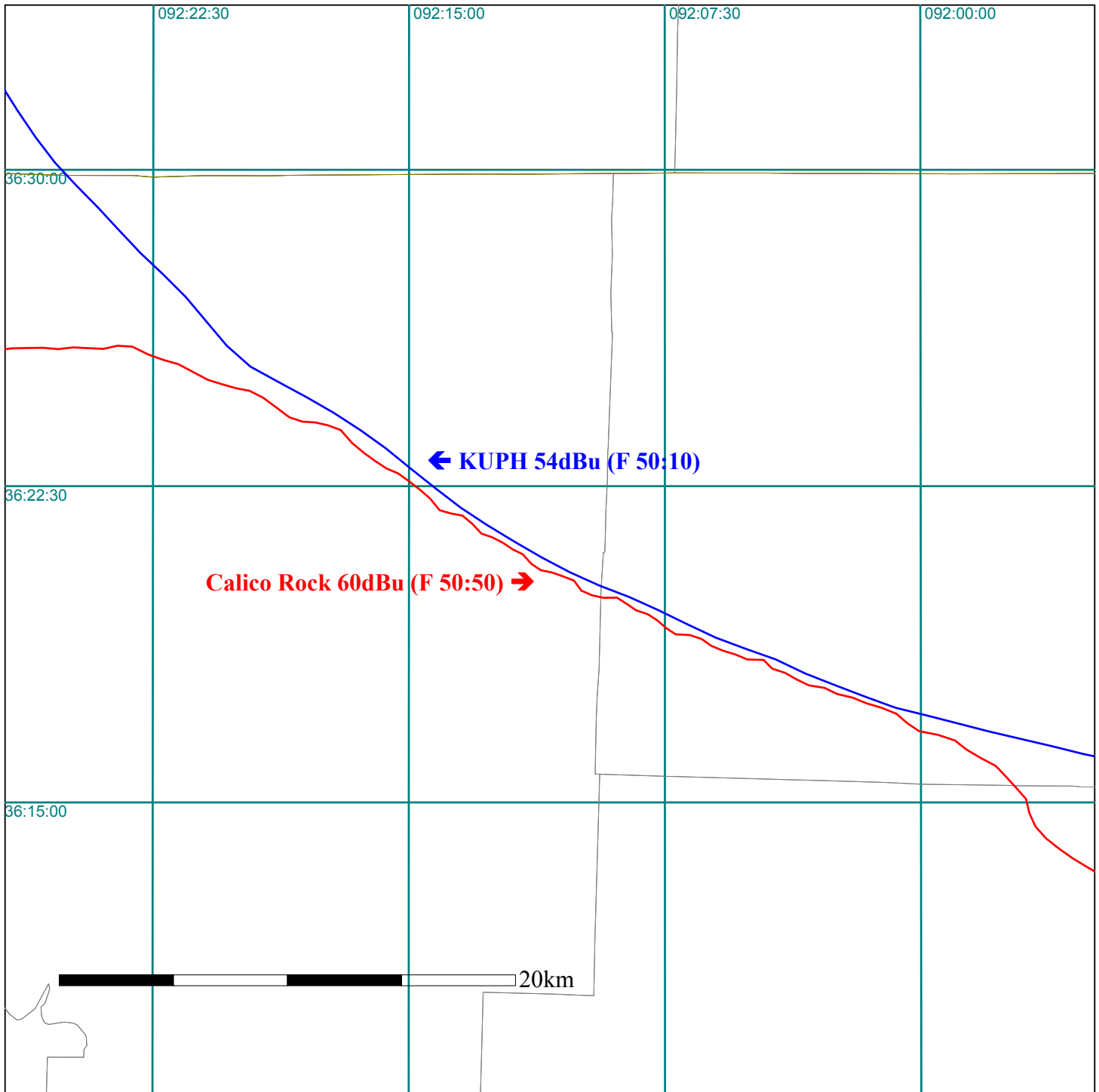
Scale 1:1500000

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Calico Rock, AR

FIGURE 12

Section 73.215 Allocation Study “Zoom”



NEW (FM)
Ch 246 C3
Calico Rock, Arkansas

Figure 13:
Distances to Relevant Contours of KXUS, Springfield, MO

'ID'	'Site Latitude'	'Site Longitude'	
KXUS (FM)	37-11-10 N	93-01-23 W	
'Antenna'	'Radials Used'	'Antenna AMSL'	ERP (kW)
Omni	360	607	100.0
	60dBu (F 50:50)	54 dBu (F 50:10)	
<u>'Bearing'</u>	<u>'To-Contour (km)'</u>	<u>'To-Contour (km)'</u>	
0	63.179	93.773	
1	63.024	93.568	
2	63.071	93.630	
3	63.320	93.957	
4	63.435	94.108	
5	63.409	94.074	
6	63.219	93.825	
7	63.322	93.959	
8	63.336	93.978	
9	63.101	93.670	
10	62.880	93.378	
11	62.805	93.279	
12	62.793	93.262	
13	62.808	93.283	
14	62.744	93.198	
15	62.663	93.089	
16	62.452	92.808	
17	62.229	92.507	
18	62.093	92.323	
19	62.104	92.338	
20	61.983	92.177	
21	61.980	92.172	
22	61.858	92.012	
23	61.857	92.010	
24	61.898	92.064	
25	61.895	92.060	
26	61.976	92.167	
27	62.096	92.327	
28	62.173	92.432	
29	62.274	92.568	
30	62.081	92.307	
31	61.918	92.091	
32	61.814	91.955	
33	61.650	91.744	
34	61.522	91.581	
35	61.252	91.243	
36	61.169	91.139	
37	61.242	91.230	
38	61.050	90.993	
39	60.930	90.848	
40	60.944	90.865	
41	61.078	91.027	
42	61.192	91.168	

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Figure 13:
Distances to Relevant Contours of KXUS, Springfield, MO

43	60.950	90.873
44	60.735	90.615
45	60.593	90.448
46	60.394	90.215
47	60.306	90.112
48	60.222	90.014
49	60.352	90.166
50	60.531	90.375
51	60.378	90.195
52	60.224	90.016
53	60.115	89.891
54	59.888	89.633
55	59.556	89.263
56	59.574	89.283
57	59.512	89.214
58	59.602	89.314
59	59.807	89.543
60	59.905	89.653
61	59.716	89.440
62	59.439	89.132
63	59.645	89.361
64	59.735	89.461
65	59.558	89.265
66	59.502	89.202
67	59.482	89.180
68	59.286	88.962
69	59.546	89.251
70	59.808	89.543
71	59.845	89.585
72	59.863	89.605
73	59.948	89.702
74	59.873	89.617
75	59.881	89.625
76	59.944	89.697
77	59.738	89.465
78	59.499	89.199
79	59.321	89.001
80	59.068	88.725
81	58.767	88.398
82	58.437	88.045
83	58.183	87.775
84	58.059	87.644
85	57.881	87.456
86	57.821	87.393
87	57.866	87.441
88	57.917	87.494
89	57.856	87.430
90	57.673	87.237
91	57.452	87.006
92	57.282	86.828
93	57.226	86.770
94	57.148	86.688

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Figure 13:
Distances to Relevant Contours of KXUS, Springfield, MO

95	57.069	86.606
96	57.011	86.545
97	57.114	86.653
98	57.204	86.746
99	57.218	86.761
100	57.134	86.673
101	56.901	86.430
102	56.610	86.127
103	56.363	85.869
104	56.213	85.713
105	56.007	85.497
106	55.965	85.453
107	56.143	85.639
108	56.246	85.748
109	56.279	85.782
110	56.303	85.807
111	56.293	85.796
112	56.218	85.719
113	56.354	85.860
114	56.529	86.043
115	56.671	86.191
116	56.865	86.393
117	57.248	86.793
118	57.823	87.395
119	58.185	87.777
120	58.466	88.077
121	58.644	88.267
122	58.735	88.365
123	58.799	88.434
124	58.956	88.603
125	59.017	88.670
126	58.955	88.602
127	58.921	88.565
128	59.019	88.672
129	58.987	88.637
130	59.036	88.690
131	58.971	88.620
132	58.969	88.618
133	58.900	88.542
134	58.849	88.488
135	58.804	88.439
136	58.744	88.375
137	58.988	88.638
138	59.393	89.081
139	59.848	89.589
140	60.102	89.877
141	60.039	89.804
142	60.082	89.853
143	60.049	89.816
144	59.935	89.686
145	59.921	89.671
146	59.907	89.655

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Calico Rock, Arkansas

Figure 13:
Distances to Relevant Contours of KXUS, Springfield, MO

147	60.067	89.837
148	60.321	90.129
149	60.511	90.351
150	60.399	90.220
151	60.210	90.000
152	60.071	89.841
153	60.172	89.957
154	60.599	90.455
155	60.674	90.543
156	60.425	90.251
157	60.242	90.037
158	60.109	89.884
159	60.233	90.027
160	60.337	90.147
161	60.619	90.478
162	60.772	90.659
163	60.649	90.514
164	60.349	90.162
165	60.226	90.019
166	60.421	90.246
167	60.668	90.536
168	60.603	90.459
169	60.643	90.507
170	60.933	90.852
171	60.927	90.845
172	60.906	90.820
173	60.702	90.577
174	60.305	90.110
175	60.005	89.766
176	60.069	89.838
177	60.215	90.006
178	60.386	90.205
179	60.416	90.240
180	60.475	90.309
181	60.762	90.648
182	60.915	90.831
183	61.227	91.212
184	61.413	91.445
185	61.413	91.444
186	61.384	91.407
187	61.386	91.410
188	61.451	91.492
189	61.541	91.607
190	61.769	91.896
191	62.156	92.408
192	62.416	92.760
193	62.410	92.752
194	62.164	92.420
195	61.898	92.065
196	61.955	92.140
197	61.845	91.995
198	61.740	91.859

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Figure 13:
Distances to Relevant Contours of KXUS, Springfield, MO

199	61.634	91.723
200	61.599	91.680
201	61.646	91.739
202	61.826	91.971
203	61.665	91.764
204	61.665	91.764
205	61.621	91.707
206	61.549	91.616
207	61.436	91.474
208	61.353	91.369
209	61.315	91.322
210	61.224	91.208
211	61.202	91.181
212	61.225	91.209
213	61.251	91.242
214	61.378	91.400
215	61.545	91.612
216	61.647	91.740
217	61.754	91.877
218	61.713	91.825
219	61.617	91.702
220	61.714	91.827
221	61.826	91.970
222	61.906	92.075
223	61.925	92.099
224	61.857	92.010
225	61.861	92.015
226	61.900	92.068
227	61.919	92.092
228	61.957	92.142
229	62.011	92.213
230	62.072	92.295
231	62.128	92.371
232	62.181	92.443
233	62.236	92.516
234	62.307	92.612
235	62.382	92.713
236	62.456	92.813
237	62.531	92.914
238	62.613	93.023
239	62.682	93.114
240	62.729	93.177
241	62.720	93.165
242	62.723	93.169
243	62.762	93.221
244	62.875	93.372
245	63.012	93.552
246	63.169	93.759
247	63.280	93.905
248	63.358	94.007
249	63.402	94.065
250	63.470	94.154

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Figure 13:
Distances to Relevant Contours of KXUS, Springfield, MO

251	63.551	94.260
252	63.633	94.366
253	63.718	94.476
254	63.820	94.607
255	63.917	94.732
256	64.051	94.904
257	64.310	95.235
258	64.754	95.798
259	65.084	96.212
260	65.127	96.266
261	65.141	96.284
262	65.198	96.355
263	65.219	96.382
264	65.264	96.438
265	65.544	96.786
266	65.484	96.713
267	65.183	96.336
268	65.112	96.247
269	65.206	96.365
270	65.515	96.750
271	65.594	96.848
272	65.655	96.924
273	65.518	96.754
274	65.278	96.456
275	65.117	96.254
276	64.999	96.106
277	64.876	95.951
278	64.768	95.816
279	64.677	95.702
280	64.654	95.672
281	64.632	95.645
282	64.489	95.464
283	64.352	95.289
284	64.121	94.993
285	64.068	94.926
286	63.956	94.782
287	63.731	94.493
288	63.618	94.346
289	63.536	94.241
290	63.443	94.119
291	63.320	93.957
292	63.337	93.980
293	63.300	93.931
294	63.193	93.791
295	63.040	93.589
296	62.944	93.462
297	62.918	93.428
298	62.897	93.400
299	62.775	93.239
300	62.651	93.073
301	62.524	92.905
302	62.467	92.828

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Figure 13:
Distances to Relevant Contours of KXUS, Springfield, MO

303	62.488	92.856
304	62.475	92.839
305	62.457	92.814
306	62.389	92.723
307	62.261	92.550
308	62.078	92.304
309	61.863	92.018
310	61.670	91.770
311	61.520	91.579
312	61.394	91.420
313	61.333	91.343
314	61.333	91.343
315	61.327	91.337
316	61.282	91.280
317	61.342	91.355
318	61.636	91.726
319	61.835	91.982
320	61.929	92.105
321	61.914	92.085
322	61.892	92.057
323	61.817	91.959
324	61.687	91.791
325	61.592	91.671
326	61.581	91.657
327	61.685	91.789
328	61.807	91.946
329	61.799	91.935
330	61.716	91.829
331	61.755	91.878
332	61.789	91.922
333	61.930	92.106
334	61.983	92.176
335	61.934	92.112
336	61.833	91.979
337	61.874	92.032
338	61.922	92.096
339	62.046	92.260
340	62.119	92.358
341	62.220	92.495
342	62.463	92.823
343	62.596	93.000
344	62.618	93.029
345	62.809	93.284
346	63.165	93.754
347	63.302	93.934
348	63.155	93.741
349	62.928	93.441
350	62.592	92.994
351	62.583	92.982
352	62.687	93.121
353	62.737	93.187
354	62.896	93.399

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Calico Rock, Arkansas

Figure 13:
Distances to Relevant Contours of KXUS, Springfield, MO

355	63.024	93.568
356	63.032	93.579
357	62.982	93.513
358	62.988	93.521
359	63.145	93.727

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Figure 14:
Distances to Relevant Contours of KUPH, Mountain View, MO

'ID'	'Site Latitude'	'Site Longitude'	
KUPH (FM)	36-59-29 N	91-47-41 W	
'Antenna'	'Radials Used'	'Antenna AMSL'	ERP (kW)
Omni	360	504	50.0
	60dBu (F 50:50)	54 dBu (F 50:10)	
<u>'Bearing'</u>	<u>'To-Contour (km)'</u>	<u>'To-Contour (km)'</u>	
0	53.705	79.845	
1	53.645	79.774	
2	53.139	79.183	
3	52.755	78.743	
4	52.719	78.702	
5	52.874	78.879	
6	53.110	79.150	
7	53.557	79.671	
8	53.877	80.050	
9	54.166	80.400	
10	54.117	80.340	
11	53.858	80.027	
12	53.758	79.908	
13	53.804	79.962	
14	53.857	80.025	
15	54.135	80.362	
16	54.319	80.589	
17	54.298	80.563	
18	54.121	80.345	
19	53.938	80.124	
20	53.916	80.097	
21	54.060	80.271	
22	54.195	80.435	
23	53.913	80.093	
24	53.654	79.785	
25	53.555	79.668	
26	53.561	79.675	
27	53.632	79.758	
28	53.593	79.712	
29	53.488	79.589	
30	53.338	79.413	
31	53.164	79.211	
32	53.095	79.132	
33	52.973	78.992	
34	53.071	79.105	
35	52.821	78.817	
36	52.548	78.508	
37	52.626	78.597	
38	52.587	78.552	
39	52.527	78.484	
40	52.767	78.756	
41	53.096	79.133	
42	53.266	79.331	

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Figure 14:
Distances to Relevant Contours of KUPH, Mountain View, MO

43	53.418	79.507
44	53.656	79.787
45	53.713	79.854
46	53.543	79.654
47	53.739	79.886
48	53.967	80.158
49	53.979	80.172
50	53.921	80.102
51	53.708	79.849
52	53.724	79.868
53	53.684	79.820
54	53.590	79.710
55	53.643	79.772
56	53.518	79.624
57	53.347	79.425
58	53.606	79.728
59	53.872	80.043
60	53.469	79.568
61	53.239	79.298
62	53.443	79.536
63	53.708	79.848
64	53.866	80.036
65	54.077	80.291
66	53.595	79.715
67	53.111	79.151
68	52.709	78.690
69	52.385	78.324
70	52.292	78.218
71	52.078	77.978
72	51.816	77.685
73	51.469	77.297
74	50.831	76.586
75	50.729	76.473
76	51.034	76.812
77	51.084	76.868
78	51.084	76.869
79	51.116	76.904
80	51.126	76.915
81	51.121	76.910
82	51.295	77.104
83	51.811	77.680
84	52.269	78.192
85	52.450	78.397
86	52.563	78.525
87	52.637	78.608
88	52.660	78.635
89	52.645	78.618
90	52.541	78.500
91	52.361	78.297
92	52.203	78.118
93	51.995	77.885
94	51.805	77.673

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Figure 14:
Distances to Relevant Contours of KUPH, Mountain View, MO

95	51.691	77.545
96	51.577	77.418
97	51.727	77.586
98	51.839	77.711
99	51.905	77.784
100	51.935	77.818
101	51.959	77.845
102	51.990	77.879
103	52.022	77.916
104	52.116	78.020
105	52.158	78.067
106	52.258	78.180
107	52.427	78.371
108	52.544	78.503
109	52.591	78.556
110	52.590	78.555
111	52.599	78.565
112	52.659	78.633
113	52.714	78.696
114	52.720	78.703
115	52.775	78.765
116	52.874	78.879
117	52.971	78.989
118	53.024	79.051
119	53.100	79.138
120	53.200	79.253
121	53.291	79.359
122	53.382	79.465
123	53.492	79.594
124	53.555	79.667
125	53.645	79.774
126	53.798	79.955
127	54.005	80.205
128	54.247	80.499
129	54.449	80.749
130	54.548	80.874
131	54.604	80.944
132	54.653	81.006
133	54.710	81.079
134	54.735	81.111
135	54.804	81.200
136	54.837	81.242
137	54.913	81.341
138	54.896	81.319
139	54.930	81.364
140	55.151	81.656
141	55.183	81.698
142	55.243	81.779
143	55.329	81.896
144	55.690	82.403
145	56.208	83.161
146	56.302	83.300

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Figure 14:
Distances to Relevant Contours of KUPH, Mountain View, MO

147	55.895	82.703
148	55.958	82.795
149	56.202	83.153
150	56.102	83.006
151	55.977	82.823
152	56.128	83.044
153	56.158	83.088
154	56.076	82.969
155	55.836	82.614
156	55.809	82.575
157	56.029	82.899
158	56.102	83.006
159	55.981	82.829
160	55.993	82.846
161	56.335	83.348
162	56.553	83.664
163	56.524	83.622
164	56.266	83.246
165	56.051	82.931
166	55.962	82.801
167	55.982	82.829
168	55.849	82.633
169	55.778	82.530
170	55.674	82.379
171	55.521	82.162
172	55.452	82.066
173	55.460	82.076
174	55.490	82.118
175	55.450	82.063
176	55.369	81.951
177	55.158	81.664
178	54.997	81.451
179	54.903	81.328
180	54.827	81.230
181	54.790	81.182
182	54.756	81.138
183	54.855	81.266
184	54.923	81.354
185	54.871	81.287
186	54.794	81.187
187	54.679	81.040
188	54.599	80.938
189	54.490	80.800
190	54.415	80.708
191	54.362	80.642
192	54.301	80.566
193	54.261	80.517
194	54.255	80.509
195	54.138	80.366
196	54.030	80.234
197	53.927	80.110
198	53.760	79.910

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Figure 14:
Distances to Relevant Contours of KUPH, Mountain View, MO

199	53.738	79.884
200	53.718	79.860
201	53.616	79.739
202	53.524	79.631
203	53.483	79.583
204	53.531	79.640
205	53.535	79.645
206	53.488	79.590
207	53.411	79.500
208	53.332	79.407
209	53.227	79.285
210	53.058	79.089
211	52.883	78.889
212	52.717	78.699
213	52.647	78.620
214	52.655	78.629
215	52.749	78.736
216	52.899	78.907
217	53.062	79.093
218	52.971	78.989
219	52.726	78.710
220	52.501	78.455
221	52.401	78.341
222	52.359	78.294
223	52.268	78.192
224	52.185	78.098
225	52.160	78.070
226	52.125	78.030
227	51.988	77.877
228	51.807	77.674
229	51.608	77.452
230	51.437	77.262
231	51.424	77.248
232	51.371	77.188
233	51.258	77.062
234	51.227	77.027
235	51.231	77.032
236	51.205	77.003
237	51.135	76.926
238	51.034	76.813
239	50.918	76.684
240	50.837	76.594
241	50.660	76.395
242	50.510	76.228
243	50.373	76.074
244	50.116	75.786
245	49.899	75.543
246	49.827	75.462
247	49.892	75.534
248	50.044	75.705
249	50.181	75.859
250	50.300	75.992

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Figure 14:
Distances to Relevant Contours of KUPH, Mountain View, MO

251	50.406	76.112
252	50.599	76.327
253	50.691	76.430
254	50.692	76.432
255	50.580	76.307
256	50.415	76.121
257	50.355	76.054
258	50.363	76.063
259	50.203	75.885
260	49.929	75.576
261	49.791	75.421
262	49.702	75.320
263	49.579	75.181
264	49.441	75.024
265	49.261	74.820
266	49.046	74.575
267	48.780	74.268
268	48.482	73.923
269	48.212	73.608
270	47.957	73.312
271	47.751	73.077
272	47.553	72.854
273	47.275	72.540
274	46.910	72.132
275	46.719	71.921
276	46.538	71.722
277	46.360	71.526
278	46.324	71.485
279	46.167	71.312
280	45.694	70.794
281	45.403	70.476
282	45.572	70.661
283	45.509	70.592
284	45.185	70.236
285	44.957	69.985
286	45.078	70.118
287	45.416	70.491
288	45.989	71.116
289	46.236	71.388
290	46.361	71.527
291	46.408	71.579
292	46.530	71.714
293	46.757	71.963
294	46.844	72.059
295	46.889	72.109
296	46.920	72.144
297	47.070	72.310
298	47.066	72.306
299	47.227	72.486
300	47.608	72.916
301	47.693	73.011
302	47.932	73.284

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Figure 14:
Distances to Relevant Contours of KUPH, Mountain View, MO

303	47.939	73.291
304	48.132	73.514
305	48.133	73.515
306	47.936	73.288
307	47.825	73.161
308	47.945	73.299
309	47.792	73.124
310	47.628	72.938
311	47.386	72.666
312	47.337	72.610
313	47.636	72.947
314	47.822	73.158
315	48.115	73.495
316	48.670	74.141
317	48.960	74.476
318	49.116	74.655
319	49.227	74.781
320	49.268	74.828
321	49.396	74.973
322	49.858	75.496
323	50.040	75.701
324	50.300	75.993
325	50.665	76.401
326	50.526	76.246
327	50.457	76.169
328	50.418	76.125
329	50.246	75.932
330	49.862	75.501
331	49.799	75.430
332	50.070	75.735
333	50.195	75.876
334	50.067	75.731
335	50.213	75.896
336	50.105	75.775
337	49.764	75.391
338	49.557	75.155
339	49.254	74.812
340	49.363	74.936
341	49.930	75.577
342	50.614	76.344
343	50.697	76.437
344	50.669	76.406
345	51.017	76.794
346	51.545	77.382
347	52.079	77.979
348	52.184	78.097
349	52.166	78.077
350	52.213	78.129
351	52.033	77.927
352	52.033	77.927
353	52.297	78.224
354	52.663	78.638

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Figure 14:
Distances to Relevant Contours of KUPH, Mountain View, MO

355	53.111	79.151
356	53.029	79.056
357	52.692	78.671
358	52.968	78.986
359	53.439	79.531

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FIGURE 15:
Directional Antenna Values

<u>'Azimuth'</u>	<u>'Field Value'</u>	<u>'dB Gain'</u>
0	0.572	-4.8521
1	0.560	-5.0362
2	0.548	-5.2244
3	0.536	-5.4167
4	0.524	-5.6134
5	0.513	-5.7977
6	0.502	-5.9859
7	0.491	-6.1784
8	0.480	-6.3752
9	0.470	-6.5580
10	0.460	-6.7448
11	0.450	-6.9358
12	0.440	-7.1309
13	0.431	-7.3105
14	0.421	-7.5144
15	0.421	-7.5144
16	0.421	-7.5144
17	0.412	-7.7021
18	0.403	-7.8939
19	0.403	-7.8939
20	0.403	-7.8939
21	0.403	-7.8939
22	0.412	-7.7021
23	0.412	-7.7021
24	0.412	-7.7021
25	0.412	-7.7021
26	0.418	-7.5765
27	0.427	-7.3914
28	0.427	-7.3914
29	0.427	-7.3914
30	0.427	-7.3914
31	0.433	-7.2702
32	0.443	-7.0719
33	0.452	-6.8972
34	0.462	-6.7072
35	0.463	-6.6884
36	0.463	-6.6884
37	0.463	-6.6884
38	0.470	-6.5580
39	0.470	-6.5580
40	0.470	-6.5580
41	0.472	-6.5212
42	0.474	-6.4844
43	0.474	-6.4844
44	0.484	-6.3031
45	0.485	-6.2852

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FIGURE 15:
Directional Antenna Values

46	0.495	-6.1079
47	0.501	-6.0032
48	0.501	-6.0032
49	0.512	-5.8146
50	0.512	-5.8146
51	0.512	-5.8146
52	0.519	-5.6967
53	0.530	-5.5145
54	0.542	-5.3200
55	0.554	-5.1298
56	0.566	-4.9437
57	0.579	-4.7464
58	0.592	-4.5536
59	0.605	-4.3649
60	0.618	-4.1802
61	0.632	-3.9857
62	0.646	-3.7953
63	0.660	-3.6091
64	0.675	-3.4139
65	0.689	-3.2356
66	0.705	-3.0362
67	0.720	-2.8534
68	0.736	-2.6624
69	0.752	-2.4756
70	0.769	-2.2815
71	0.786	-2.0915
72	0.804	-1.8949
73	0.821	-1.7131
74	0.839	-1.5248
75	0.858	-1.3303
76	0.877	-1.1400
77	0.896	-0.9538
78	0.916	-0.7621
79	0.936	-0.5745
80	0.957	-0.3818
81	0.978	-0.1932
82	1.000	0.0000
83	1.000	0.0000
84	1.000	0.0000
85	1.000	0.0000
86	1.000	0.0000
87	1.000	0.0000
88	1.000	0.0000
89	1.000	0.0000
90	1.000	0.0000
91	1.000	0.0000
92	1.000	0.0000

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Calico Rock, AR

FIGURE 15:
Directional Antenna Values

93	1.000	0.0000
94	1.000	0.0000
95	1.000	0.0000
96	1.000	0.0000
97	1.000	0.0000
98	1.000	0.0000
99	1.000	0.0000
100	1.000	0.0000
101	1.000	0.0000
102	1.000	0.0000
103	1.000	0.0000
104	1.000	0.0000
105	1.000	0.0000
106	1.000	0.0000
107	1.000	0.0000
108	1.000	0.0000
109	1.000	0.0000
110	1.000	0.0000
111	1.000	0.0000
112	1.000	0.0000
113	1.000	0.0000
114	1.000	0.0000
115	1.000	0.0000
116	1.000	0.0000
117	1.000	0.0000
118	1.000	0.0000
119	1.000	0.0000
120	1.000	0.0000
121	1.000	0.0000
122	1.000	0.0000
123	1.000	0.0000
124	1.000	0.0000
125	1.000	0.0000
126	1.000	0.0000
127	1.000	0.0000
128	1.000	0.0000
129	1.000	0.0000
130	1.000	0.0000
131	1.000	0.0000
132	1.000	0.0000
133	1.000	0.0000
134	1.000	0.0000
135	1.000	0.0000
136	1.000	0.0000
137	1.000	0.0000
138	1.000	0.0000
139	1.000	0.0000

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FIGURE 15:
Directional Antenna Values

140	1.000	0.0000
141	1.000	0.0000
142	1.000	0.0000
143	1.000	0.0000
144	1.000	0.0000
145	1.000	0.0000
146	1.000	0.0000
147	1.000	0.0000
148	1.000	0.0000
149	1.000	0.0000
150	1.000	0.0000
151	1.000	0.0000
152	1.000	0.0000
153	1.000	0.0000
154	1.000	0.0000
155	1.000	0.0000
156	1.000	0.0000
157	1.000	0.0000
158	1.000	0.0000
159	1.000	0.0000
160	1.000	0.0000
161	1.000	0.0000
162	1.000	0.0000
163	1.000	0.0000
164	1.000	0.0000
165	1.000	0.0000
166	1.000	0.0000
167	1.000	0.0000
168	1.000	0.0000
169	1.000	0.0000
170	1.000	0.0000
171	1.000	0.0000
172	1.000	0.0000
173	1.000	0.0000
174	1.000	0.0000
175	1.000	0.0000
176	1.000	0.0000
177	1.000	0.0000
178	1.000	0.0000
179	1.000	0.0000
180	1.000	0.0000
181	1.000	0.0000
182	1.000	0.0000
183	1.000	0.0000
184	1.000	0.0000
185	1.000	0.0000
186	1.000	0.0000

NEW (FM)
CH 246 C3
Calico Rock, AR

FIGURE 15:
Directional Antenna Values

187	1.000	0.0000
188	1.000	0.0000
189	1.000	0.0000
190	1.000	0.0000
191	1.000	0.0000
192	1.000	0.0000
193	1.000	0.0000
194	1.000	0.0000
195	1.000	0.0000
196	1.000	0.0000
197	1.000	0.0000
198	1.000	0.0000
199	1.000	0.0000
200	1.000	0.0000
201	1.000	0.0000
202	1.000	0.0000
203	1.000	0.0000
204	1.000	0.0000
205	1.000	0.0000
206	1.000	0.0000
207	1.000	0.0000
208	1.000	0.0000
209	1.000	0.0000
210	1.000	0.0000
211	1.000	0.0000
212	1.000	0.0000
213	1.000	0.0000
214	1.000	0.0000
215	1.000	0.0000
216	1.000	0.0000
217	1.000	0.0000
218	1.000	0.0000
219	1.000	0.0000
220	1.000	0.0000
221	1.000	0.0000
222	1.000	0.0000
223	1.000	0.0000
224	1.000	0.0000
225	1.000	0.0000
226	1.000	0.0000
227	1.000	0.0000
228	1.000	0.0000
229	1.000	0.0000
230	1.000	0.0000
231	1.000	0.0000
232	1.000	0.0000
233	1.000	0.0000

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Calico Rock, AR

FIGURE 15:
Directional Antenna Values

234	1.000	0.0000
235	1.000	0.0000
236	1.000	0.0000
237	1.000	0.0000
238	1.000	0.0000
239	1.000	0.0000
240	1.000	0.0000
241	1.000	0.0000
242	1.000	0.0000
243	1.000	0.0000
244	1.000	0.0000
245	1.000	0.0000
246	1.000	0.0000
247	1.000	0.0000
248	1.000	0.0000
249	1.000	0.0000
250	1.000	0.0000
251	1.000	0.0000
252	1.000	0.0000
253	1.000	0.0000
254	1.000	0.0000
255	1.000	0.0000
256	1.000	0.0000
257	1.000	0.0000
258	1.000	0.0000
259	1.000	0.0000
260	1.000	0.0000
261	1.000	0.0000
262	1.000	0.0000
263	1.000	0.0000
264	1.000	0.0000
265	1.000	0.0000
266	1.000	0.0000
267	1.000	0.0000
268	1.000	0.0000
269	1.000	0.0000
270	1.000	0.0000
271	1.000	0.0000
272	1.000	0.0000
273	1.000	0.0000
274	1.000	0.0000
275	1.000	0.0000
276	1.000	0.0000
277	1.000	0.0000
278	1.000	0.0000
279	1.000	0.0000
280	1.000	0.0000

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FIGURE 15:
Directional Antenna Values

281	1.000	0.0000
282	1.000	0.0000
283	1.000	0.0000
284	1.000	0.0000
285	1.000	0.0000
286	1.000	0.0000
287	1.000	0.0000
288	1.000	0.0000
289	1.000	0.0000
290	1.000	0.0000
291	1.000	0.0000
292	1.000	0.0000
293	1.000	0.0000
294	1.000	0.0000
295	1.000	0.0000
296	1.000	0.0000
297	1.000	0.0000
298	1.000	0.0000
299	1.000	0.0000
300	1.000	0.0000
301	1.000	0.0000
302	1.000	0.0000
303	1.000	0.0000
304	1.000	0.0000
305	1.000	0.0000
306	1.000	0.0000
307	1.000	0.0000
308	1.000	0.0000
309	1.000	0.0000
310	1.000	0.0000
311	1.000	0.0000
312	1.000	0.0000
313	1.000	0.0000
314	1.000	0.0000
315	1.000	0.0000
316	1.000	0.0000
317	1.000	0.0000
318	1.000	0.0000
319	1.000	0.0000
320	1.000	0.0000
321	1.000	0.0000
322	1.000	0.0000
323	1.000	0.0000
324	1.000	0.0000
325	1.000	0.0000
326	1.000	0.0000
327	1.000	0.0000

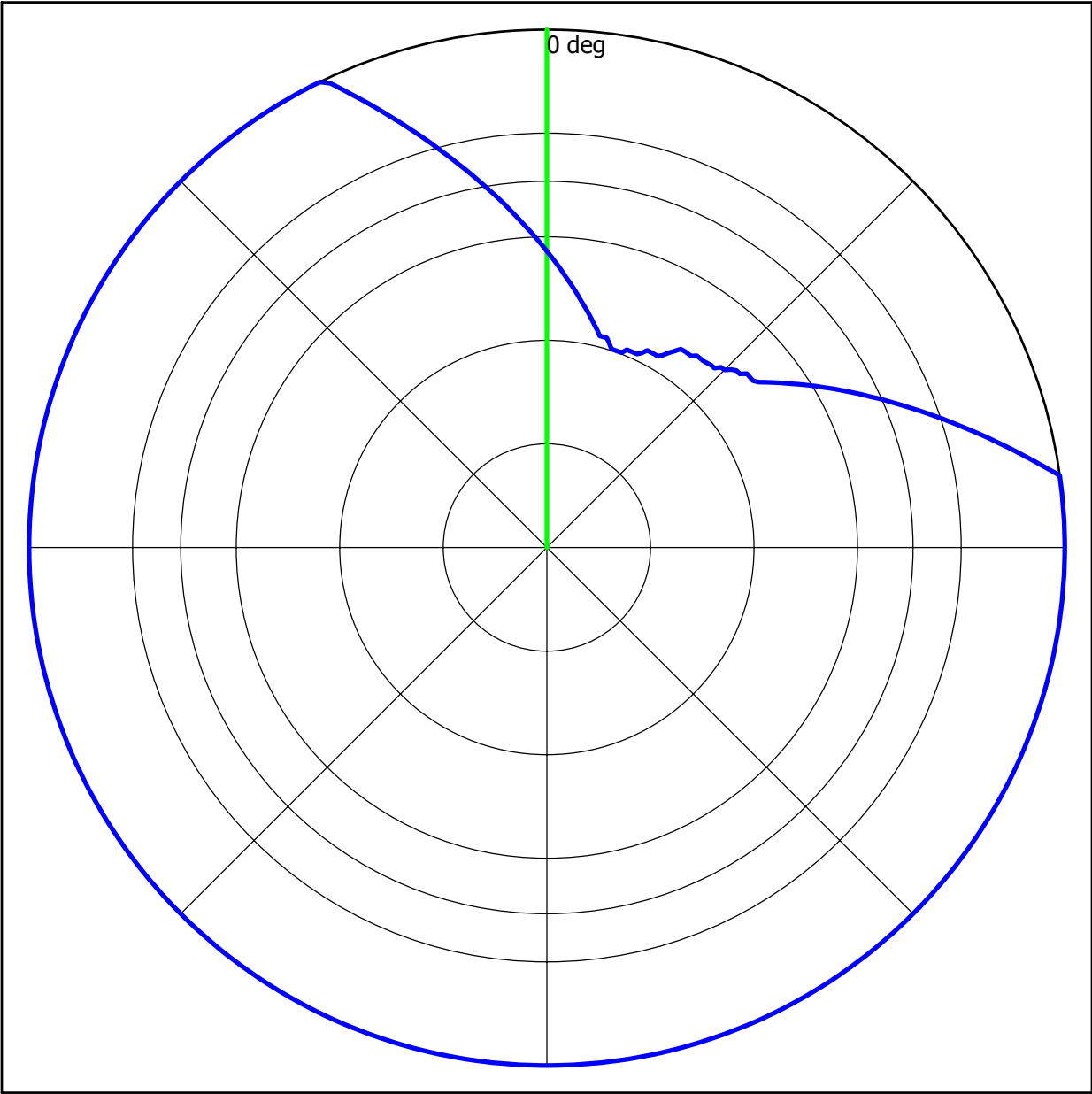
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FIGURE 15:
Directional Antenna Values

328	1.000	0.0000
329	1.000	0.0000
330	1.000	0.0000
331	1.000	0.0000
332	1.000	0.0000
333	1.000	0.0000
334	1.000	0.0000
335	0.989	-0.0961
336	0.967	-0.2915
337	0.946	-0.4822
338	0.926	-0.6678
339	0.906	-0.8574
340	0.886	-1.0513
341	0.867	-1.2396
342	0.848	-1.4321
343	0.830	-1.6184
344	0.812	-1.8089
345	0.794	-2.0036
346	0.777	-2.1916
347	0.760	-2.3837
348	0.744	-2.5685
349	0.728	-2.7574
350	0.712	-2.9504
351	0.697	-3.1353
352	0.682	-3.3243
353	0.667	-3.5175
354	0.652	-3.7150
355	0.638	-3.9036
356	0.624	-4.0963
357	0.611	-4.2792
358	0.598	-4.4660
359	0.585	-4.6569

FIGURE 16

Antenna Pattern



Degrees	Field	Degrees	Field	Degrees	Field	Degrees	Field
000	0.57	090	1.00	180	1.00	270	1.00
010	0.46	100	1.00	190	1.00	280	1.00
020	0.40	110	1.00	200	1.00	290	1.00
030	0.43	120	1.00	210	1.00	300	1.00
040	0.47	130	1.00	220	1.00	310	1.00
050	0.51	140	1.00	230	1.00	320	1.00
060	0.62	150	1.00	240	1.00	330	1.00
070	0.77	160	1.00	250	1.00	340	0.89
080	0.96	170	1.00	260	1.00	350	0.71

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FIGURE 17

