

TECHNICAL EXHIBIT
(Revised December 21, 2004)
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 2.5.17. 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. Figure 12-A 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 12-B is a “zoom-in” on the area of concern which demonstrates that there will be no overlap between the 60 dBu Protected Contour of NEW (FM) and the 54dBu Interfering Contour of KXUS. 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 21, 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

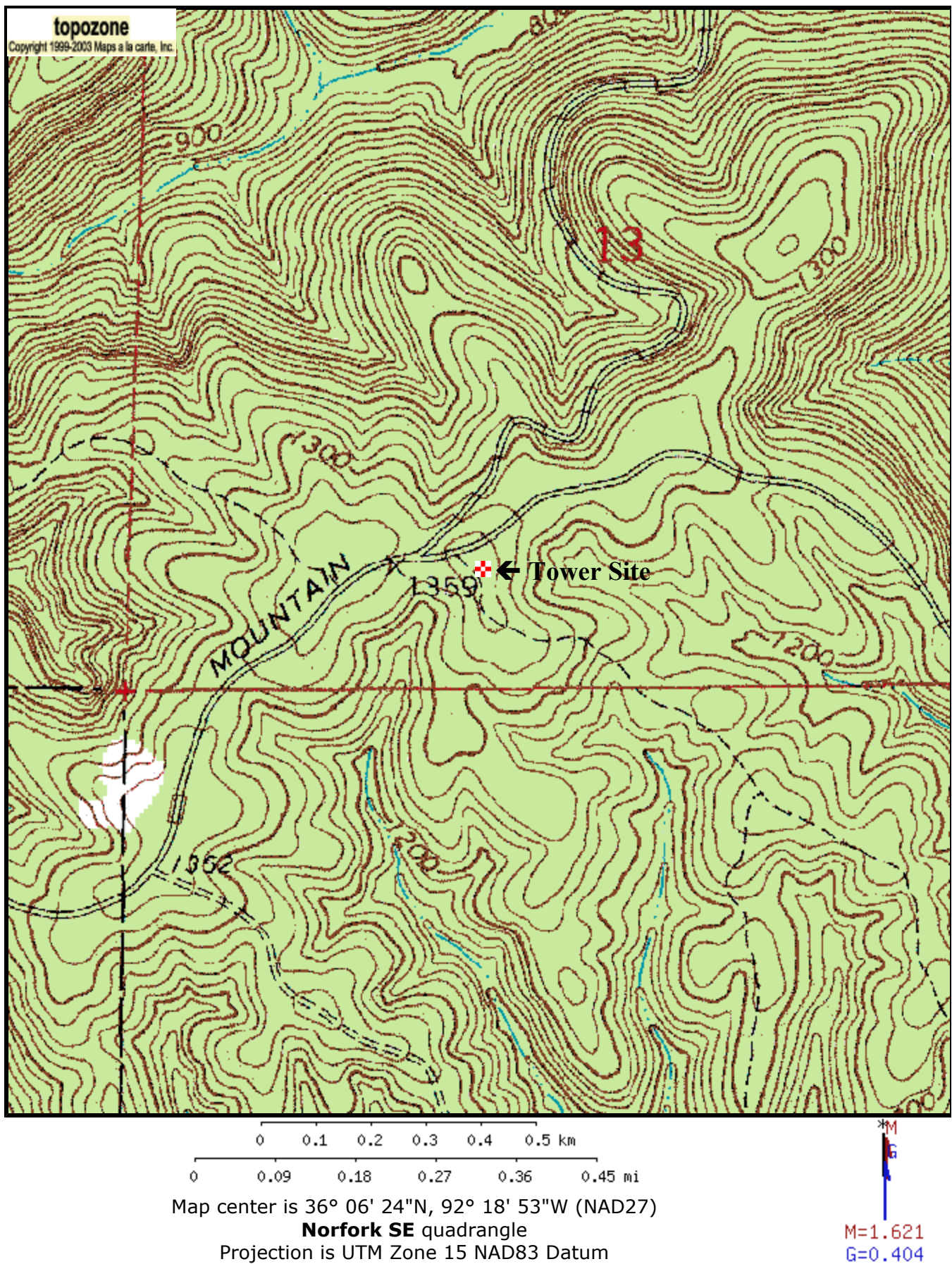
[Tower Construction Notification](#)

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

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

CLOSE WINDOW

FIGURE 2: Tower Location



NEW (FM) - CH 246 C3
Calico Rock, Arkansas

Allocation Study at
Reference Site

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

Figure 3

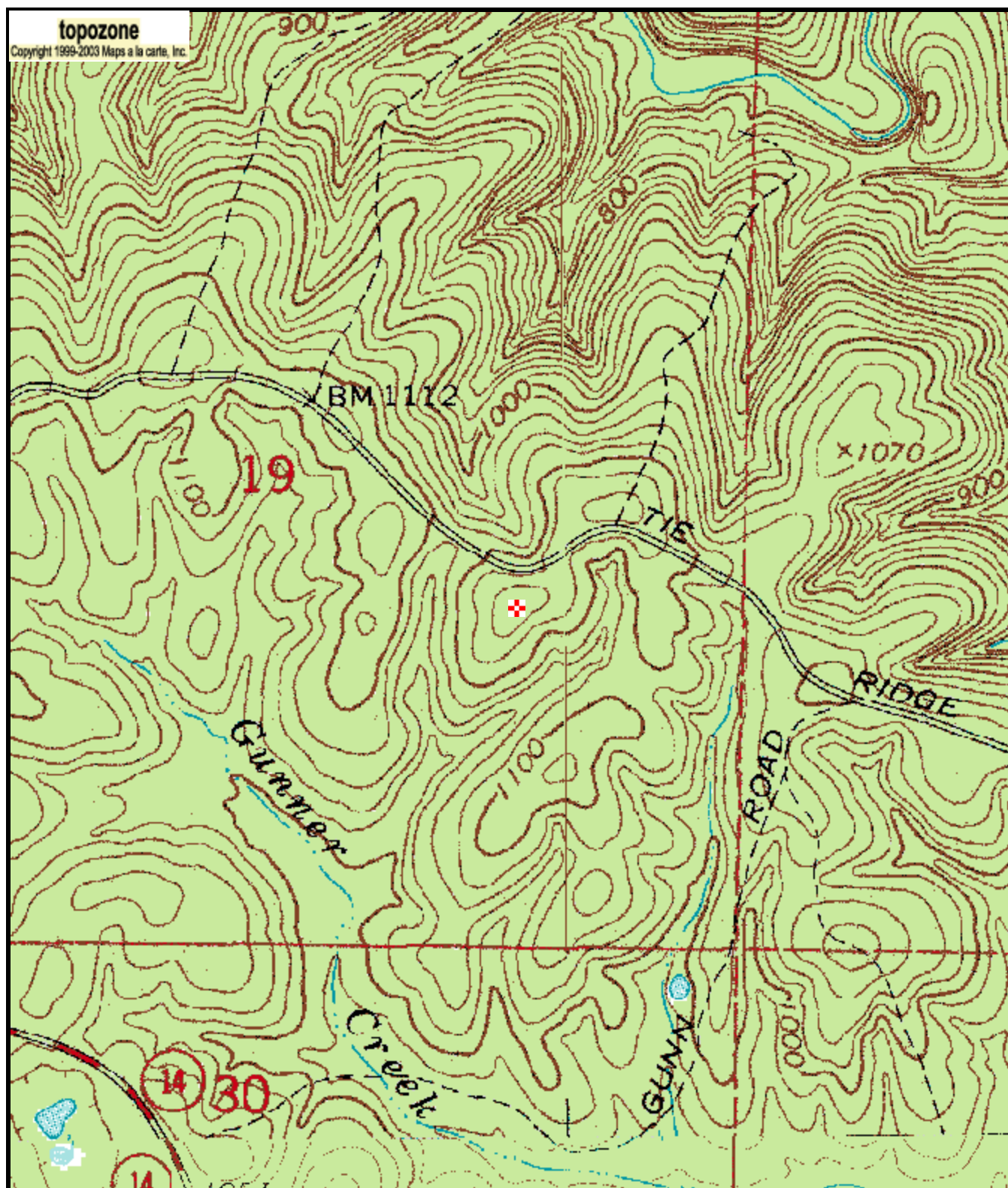
Note	Callsign	Latitude (NAD27)	Longitude (NAD27)	City	State	Channel	Class	Status	Dist.(km)	Req'd Min	Clearance	ERP	HAAT	Bearing
1 NEW		N36:07:49	W092:18:42	CALICO ROCK	AR	246 : 97.1 MHz	A	APP	13.64	142	-128.36	0.0	0	353
2 STAT:VAC		N36:05:01	W092:09:26	CALICO ROCK	AR	246 : 97.1 MHz	A	VAC	14.78	142	-127.22	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

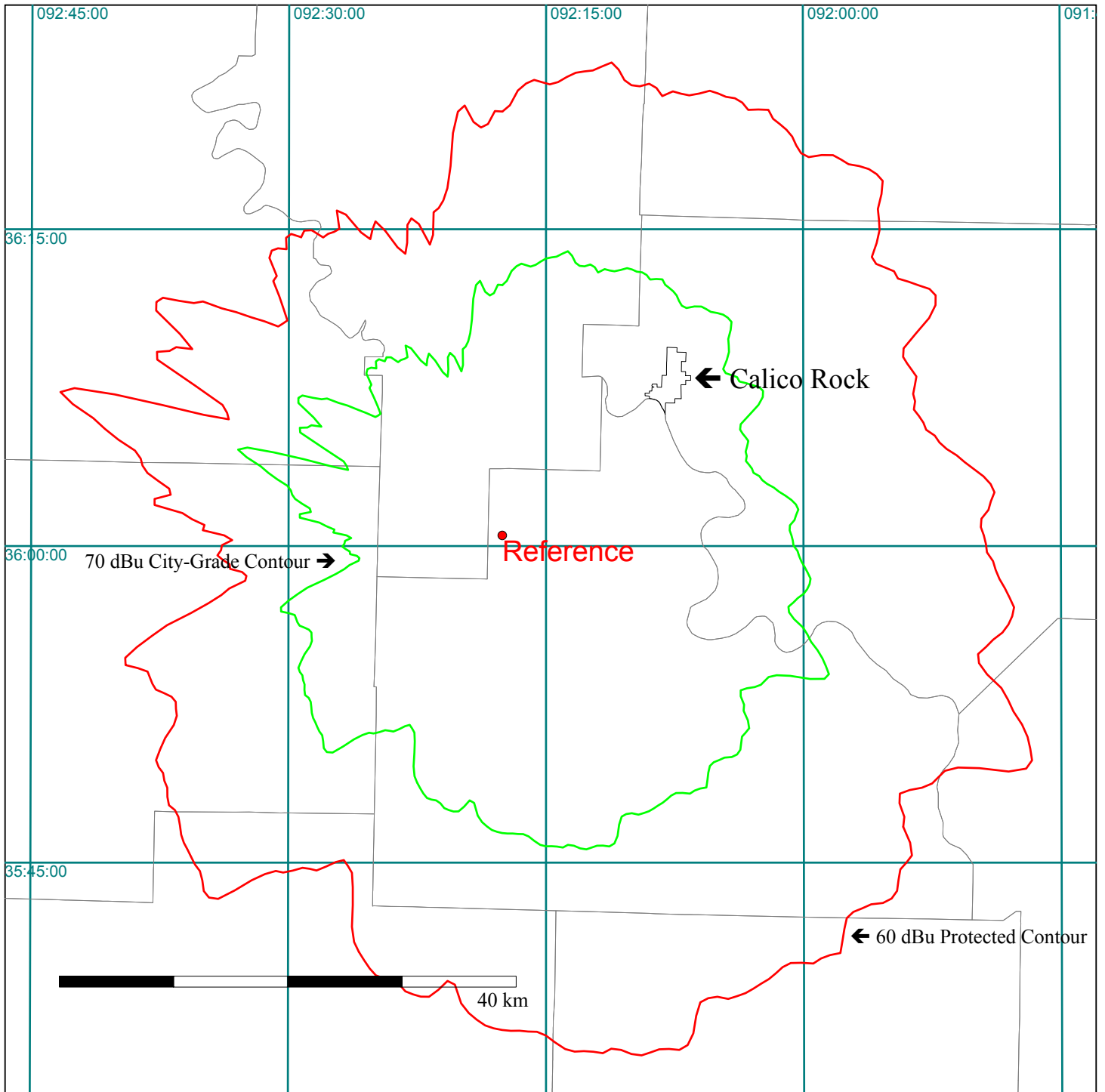
NEW (FM) Ch 246 C3

Calico Rock, AR

FIGURE 5

Contour Coverage Map from Reference Site

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



NEW (FM)
Channel 246 C3
Calico Rock, AR

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	19.655	33.867	50.885
1	19.381	33.436	50.265
2	19.272	33.257	50.028
3	19.243	33.222	49.984
4	19.169	33.118	49.833
5	19.051	32.916	49.572
6	18.768	32.462	48.905
7	18.542	32.097	48.380
8	18.347	31.786	47.922
9	18.190	31.513	47.557
10	18.104	31.376	47.369
11	17.933	31.107	46.973
12	17.763	30.833	46.584
13	17.589	30.573	46.180
14	17.448	30.330	45.845
15	17.304	30.103	45.506
16	17.174	29.905	45.205
17	17.065	29.742	44.954
18	16.971	29.594	44.735
19	16.900	29.465	44.570
20	16.830	29.358	44.401
21	16.770	29.269	44.255
22	16.713	29.188	44.113
23	16.676	29.125	44.030
24	16.644	29.068	43.958
25	16.620	29.037	43.901
26	16.616	29.027	43.896
27	16.626	29.030	43.929
28	16.628	29.058	43.943
29	16.673	29.105	44.039
30	16.707	29.173	44.110
31	16.757	29.254	44.222
32	16.754	29.229	44.230
33	16.745	29.233	44.225
34	16.888	29.440	44.552
35	16.991	29.594	44.785
36	17.037	29.679	44.892
37	17.113	29.780	45.060
38	17.177	29.893	45.204
39	17.254	30.010	45.374
40	17.365	30.168	45.631
41	17.480	30.363	45.893
42	17.612	30.557	46.193

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Figure 7:
Distances to Contours

43	17.760	30.800	46.533
44	17.899	31.029	46.855
45	18.043	31.249	47.187
46	18.169	31.460	47.483
47	18.295	31.666	47.777
48	18.465	31.950	48.187
49	18.627	32.227	48.570
50	18.815	32.536	49.025
51	19.012	32.866	49.518
52	19.212	33.211	49.989
53	19.456	33.595	50.562
54	19.622	33.871	50.925
55	19.733	34.036	51.151
56	20.000	34.463	51.758
57	20.392	35.075	52.674
58	20.660	35.512	53.278
59	20.759	35.655	53.457
60	21.048	36.085	54.098
61	21.276	36.425	54.591
62	21.370	36.567	54.763
63	21.520	36.803	55.070
64	21.591	36.896	55.182
65	21.528	36.790	54.985
66	21.623	36.910	55.152
67	21.804	37.173	55.517
68	22.070	37.576	56.078
69	22.408	38.080	56.810
70	22.778	38.627	57.600
71	23.146	39.180	58.391
72	23.397	39.543	58.910
73	23.562	39.764	59.223
74	23.704	39.955	59.479
75	23.877	40.201	59.808
76	24.165	40.606	60.396
77	24.565	41.188	61.246
78	24.932	41.696	61.999
79	25.300	42.221	62.769
80	25.637	42.685	63.467
81	25.862	43.001	63.969
82	26.089	43.317	64.484
83	26.118	43.358	64.551
84	26.050	43.263	64.395
85	26.157	43.414	64.642
86	26.133	43.379	64.586
87	26.094	43.325	64.497
88	26.110	43.348	64.534
89	26.095	43.327	64.500
90	26.098	43.330	64.504
91	26.027	43.230	64.342
92	25.928	43.093	64.118
93	25.840	42.970	63.919
94	25.630	42.676	63.452

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Figure 7:
Distances to Contours

95	25.458	42.431	63.066
96	25.258	42.142	62.612
97	24.964	41.717	61.952
98	24.569	41.149	61.083
99	24.001	40.324	59.841
100	23.463	39.565	58.721
101	23.165	39.144	58.102
102	22.977	38.877	57.714
103	22.686	38.464	57.110
104	22.354	37.979	56.403
105	22.203	37.753	56.073
106	22.073	37.555	55.786
107	21.749	37.056	55.061
108	21.522	36.699	54.545
109	21.145	36.080	53.655
110	20.800	35.499	52.830
111	20.623	35.199	52.408
112	20.303	34.641	51.637
113	19.854	33.847	50.600
114	19.459	33.154	49.731
115	19.242	32.773	49.263
116	19.098	32.524	48.958
117	19.021	32.393	48.797
118	19.237	32.763	49.251
119	19.487	33.203	49.792
120	19.434	33.109	49.676
121	19.310	32.891	49.407
122	19.323	32.915	49.437
123	19.390	33.032	49.581
124	19.435	33.112	49.679
125	19.344	32.951	49.481
126	19.528	33.274	49.880
127	19.755	33.672	50.378
128	19.810	33.770	50.501
129	20.197	34.455	51.388
130	20.441	34.885	51.970
131	20.070	34.229	51.090
132	20.087	34.259	51.131
133	20.297	34.630	51.622
134	20.513	35.010	52.144
135	20.613	35.182	52.384
136	20.792	35.486	52.812
137	20.810	35.517	52.855
138	20.989	35.819	53.283
139	21.183	36.143	53.746
140	21.396	36.494	54.250
141	21.721	37.013	54.998
142	21.884	37.265	55.364
143	22.016	37.467	55.659
144	22.086	37.574	55.814
145	22.137	37.652	55.927
146	22.087	37.576	55.816

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Figure 7:
Distances to Contours

147	22.151	37.673	55.957
148	22.231	37.795	56.135
149	22.238	37.806	56.150
150	22.090	37.581	55.823
151	21.742	37.045	55.045
152	21.661	36.918	54.862
153	21.421	36.536	54.310
154	21.166	36.115	53.706
155	21.029	35.886	53.379
156	20.939	35.736	53.165
157	20.882	35.639	53.027
158	20.855	35.593	52.962
159	20.798	35.497	52.827
160	20.863	35.607	52.982
161	20.964	35.777	53.223
162	20.733	35.387	52.672
163	20.432	34.868	51.947
164	20.276	34.594	51.573
165	20.244	34.538	51.499
166	20.133	34.341	51.237
167	20.077	34.241	51.107
168	20.067	34.223	51.083
169	20.066	34.223	51.083
170	20.019	34.139	50.974
171	20.015	34.132	50.965
172	20.050	34.194	51.046
173	20.143	34.359	51.261
174	20.234	34.520	51.474
175	20.128	34.332	51.226
176	19.933	33.986	50.777
177	19.990	34.087	50.907
178	20.101	34.284	51.163
179	20.374	34.768	51.809
180	20.663	35.267	52.503
181	20.584	35.133	52.315
182	20.181	34.426	51.350
183	19.891	33.913	50.683
184	20.013	34.128	50.960
185	20.326	34.683	51.694
186	20.099	34.280	51.158
187	19.803	33.757	50.485
188	19.837	33.816	50.560
189	19.822	33.790	50.527
190	19.728	33.625	50.319
191	19.524	33.268	49.872
192	19.336	32.937	49.464
193	19.064	32.466	48.888
194	19.058	32.456	48.875
195	18.931	32.241	48.610
196	18.702	31.862	48.143
197	18.617	31.722	47.973
198	18.385	31.353	47.517

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Figure 7:
Distances to Contours

199	18.293	31.211	47.336
200	18.310	31.237	47.369
201	18.359	31.313	47.465
202	18.354	31.305	47.456
203	18.286	31.201	47.322
204	18.116	30.944	46.992
205	18.172	31.029	47.101
206	18.105	30.928	46.972
207	17.983	30.745	46.743
208	17.701	30.337	46.215
209	17.585	30.177	46.001
210	17.534	30.107	45.908
211	17.494	30.051	45.835
212	17.395	29.914	45.654
213	17.186	29.624	45.268
214	16.939	29.295	44.814
215	16.952	29.312	44.838
216	17.224	29.677	45.338
217	17.680	30.308	46.178
218	17.982	30.744	46.741
219	18.187	31.051	47.130
220	18.125	30.957	47.009
221	18.293	31.213	47.337
222	18.722	31.895	48.184
223	19.193	32.687	49.158
224	19.558	33.327	49.946
225	19.392	33.036	49.585
226	19.477	33.185	49.770
227	19.514	33.251	49.851
228	19.587	33.378	50.009
229	19.773	33.704	50.418
230	19.984	34.076	50.893
231	19.995	34.096	50.919
232	19.955	34.026	50.828
233	19.909	33.945	50.724
234	19.727	33.624	50.317
235	19.984	34.076	50.892
236	20.310	34.654	51.655
237	20.148	34.368	51.273
238	20.351	34.726	51.752
239	20.524	35.029	52.171
240	20.763	35.437	52.743
241	20.761	35.433	52.737
242	20.394	34.803	51.857
243	20.512	35.010	52.143
244	20.702	35.333	52.596
245	20.860	35.602	52.975
246	21.052	35.926	53.435
247	21.321	36.372	54.074
248	22.072	37.553	55.783
249	22.395	38.041	56.493
250	21.751	37.059	55.066

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Figure 7:
Distances to Contours

251	21.207	36.183	53.803
252	21.111	36.024	53.575
253	21.102	36.008	53.553
254	21.264	36.278	53.938
255	21.606	36.833	54.738
256	21.889	37.274	55.377
257	22.464	38.144	56.643
258	22.951	38.840	57.660
259	23.126	39.089	58.021
260	23.115	39.073	57.999
261	23.044	38.973	57.852
262	22.663	38.431	57.062
263	22.258	37.835	56.193
264	22.401	38.049	56.506
265	22.337	37.954	56.367
266	22.358	37.986	56.414
267	22.795	38.619	57.337
268	23.049	38.980	57.862
269	22.889	38.753	57.532
270	22.814	38.646	57.376
271	23.328	39.373	58.440
272	23.736	39.947	59.283
273	23.752	39.970	59.317
274	23.510	39.631	58.817
275	22.667	38.437	57.070
276	21.628	36.867	54.788
277	21.101	36.006	53.550
278	21.216	36.198	53.824
279	21.956	37.376	55.526
280	22.366	37.998	56.431
281	22.552	38.271	56.829
282	22.122	37.630	55.895
283	21.803	37.141	55.184
284	21.937	37.347	55.484
285	22.140	37.657	55.935
286	22.005	37.452	55.636
287	21.655	36.910	54.849
288	21.430	36.551	54.332
289	21.412	36.521	54.289
290	21.482	36.636	54.454
291	21.682	36.951	54.909
292	22.040	37.504	55.712
293	22.319	37.927	56.327
294	22.161	37.689	55.980
295	22.275	37.861	56.231
296	22.315	37.915	56.319
297	22.236	37.794	56.161
298	22.418	38.052	56.566
299	22.477	38.135	56.702
300	22.299	37.861	56.333
301	22.031	37.466	55.777
302	21.837	37.170	55.378

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Figure 7:
Distances to Contours

303	21.580	36.791	54.848
304	21.223	36.242	54.092
305	20.731	35.485	53.027
306	20.210	34.666	51.861
307	19.967	34.276	51.326
308	19.966	34.276	51.368
309	19.960	34.292	51.391
310	19.867	34.152	51.205
311	19.752	33.962	50.965
312	19.670	33.832	50.796
313	19.561	33.669	50.568
314	19.377	33.367	50.167
315	19.319	33.278	50.048
316	19.192	33.084	49.770
317	19.042	32.820	49.425
318	18.885	32.565	49.065
319	18.722	32.303	48.689
320	18.486	31.937	48.160
321	18.421	31.830	48.021
322	18.305	31.647	47.763
323	18.213	31.497	47.556
324	18.153	31.403	47.419
325	18.107	31.319	47.317
326	18.078	31.267	47.250
327	18.097	31.314	47.297
328	18.119	31.352	47.348
329	18.162	31.418	47.447
330	18.157	31.424	47.441
331	18.166	31.436	47.461
332	18.173	31.453	47.478
333	18.192	31.453	47.520
334	18.151	31.379	47.419
335	18.177	31.427	47.473
336	18.167	31.423	47.447
337	18.178	31.436	47.474
338	18.183	31.443	47.476
339	18.209	31.465	47.531
340	18.251	31.537	47.636
341	18.288	31.613	47.728
342	18.339	31.697	47.849
343	18.423	31.842	48.046
344	18.536	32.040	48.308
345	18.682	32.255	48.637
346	18.816	32.502	48.947
347	18.992	32.767	49.348
348	19.155	33.054	49.722
349	19.332	33.358	50.138
350	19.505	33.643	50.543
351	19.661	33.880	50.879
352	19.887	34.239	51.374
353	20.093	34.550	51.834
354	20.254	34.816	52.180

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Figure 7:
Distances to Contours

355	20.443	35.113	52.591
356	20.401	35.046	52.507
357	20.253	34.821	52.193
358	20.156	34.663	51.998
359	19.926	34.321	51.491

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Calico Rock, AR

FIGURE 8

Proposed Contour Coverage Map

4.4kW (MAX-DA) @ 238m HAAT

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

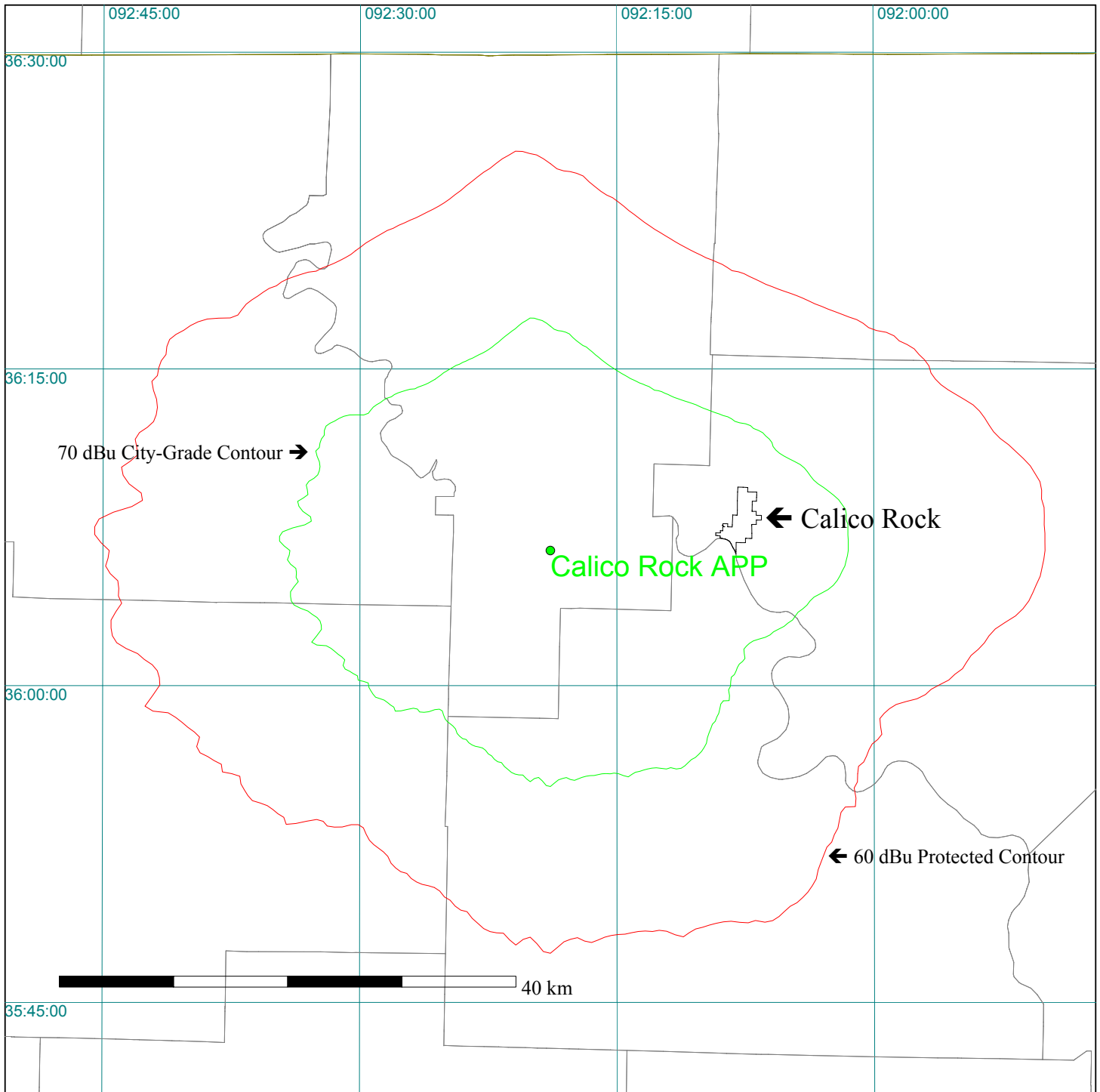
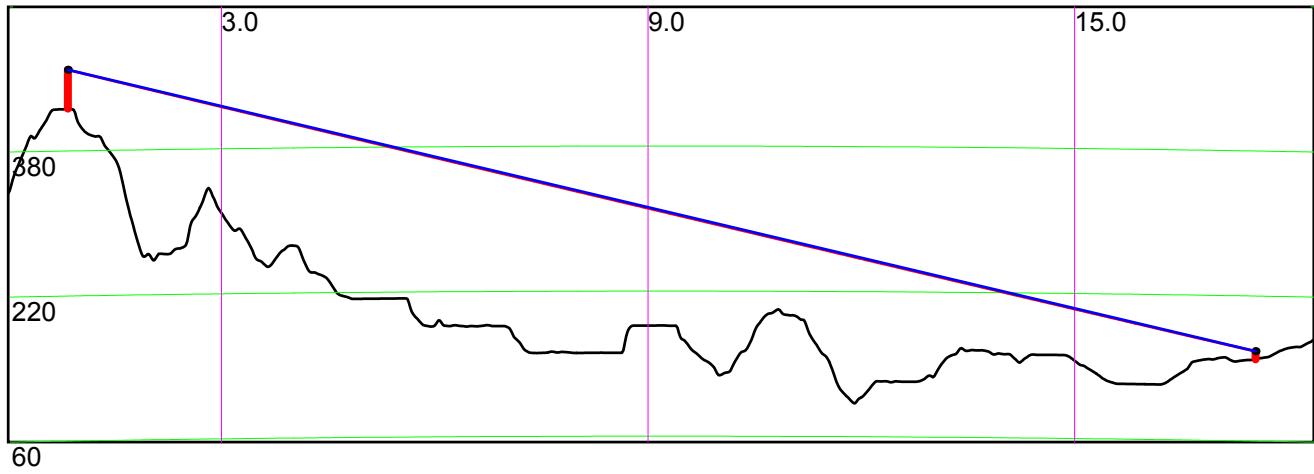


FIGURE 9: Terrain Profile

Antenna to Community of License



NEW (FM) - CH 246 C3
Calico Rock, Arkansas

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.

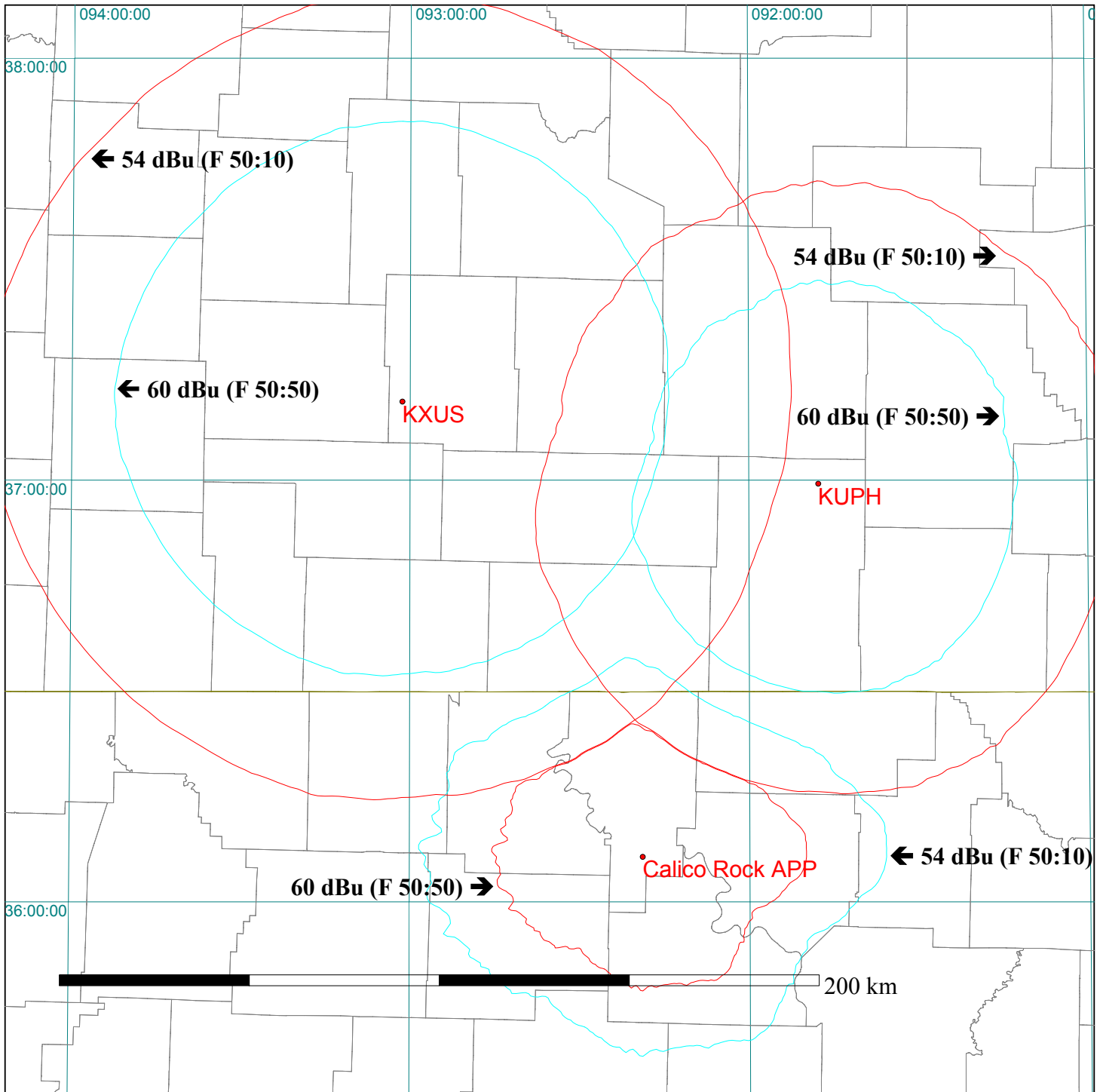
Database Date: DEC 10 2004

NEW (FM) Ch 246 C3

Calico Rock, AR

FIGURE 11

Section 73.215 Allocation Study



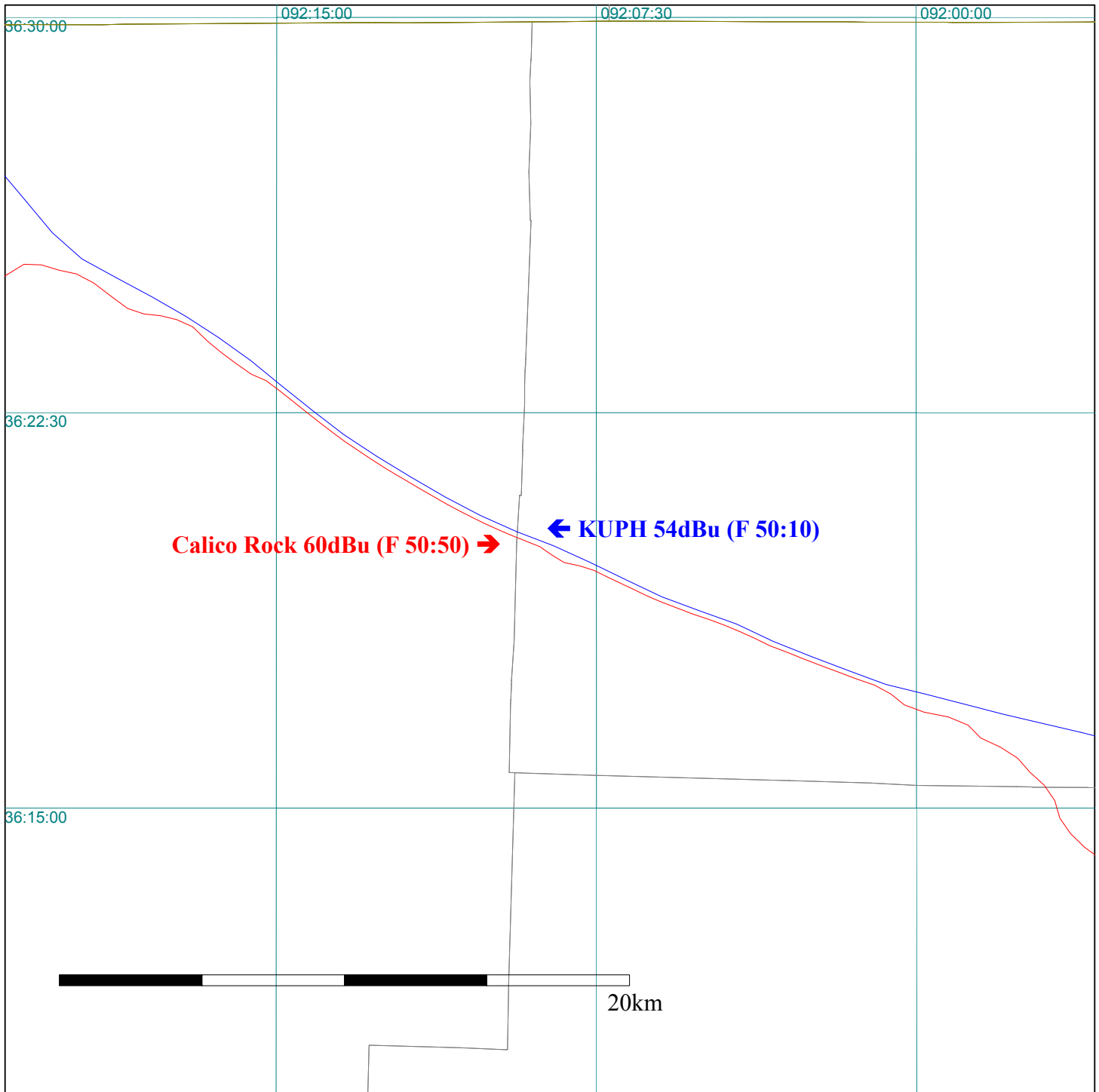
Scale 1:1500000

NEW (FM) Ch 246 C3

Calico Rock, AR

FIGURE 12-A

Section 73.215 Allocation Study “Zoom”



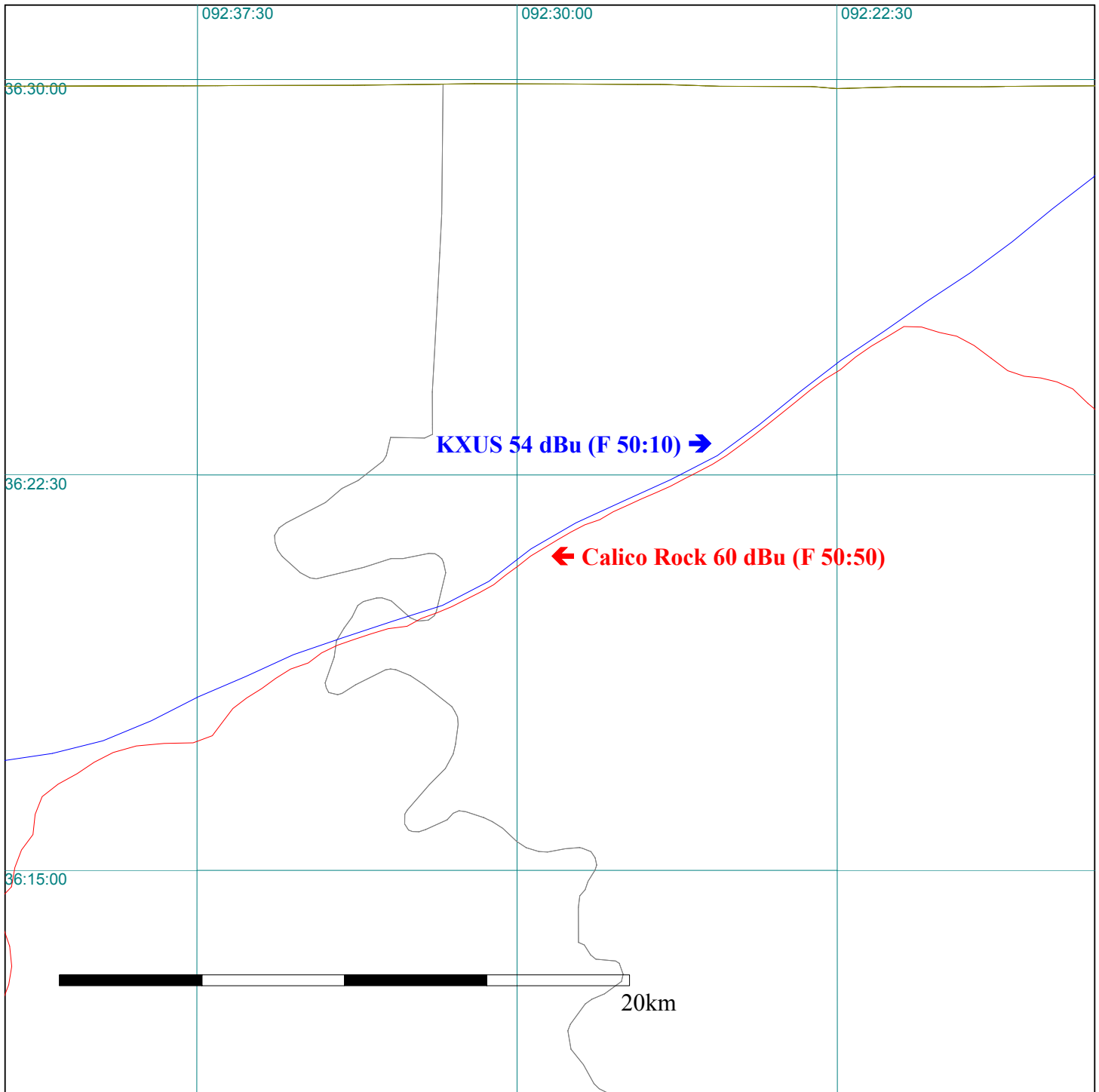
Scale 1:200000

NEW (FM) Ch 246 C3

Calico Rock, AR

FIGURE 12-B

Section 73.215 Allocation Study “Zoom”



Scale 1:200000

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	732	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	73.726	106.944	
1	73.604	106.754	
2	73.641	106.811	
3	73.836	107.122	
4	73.926	107.271	
5	73.906	107.237	
6	73.757	106.993	
7	73.837	107.124	
8	73.849	107.143	
9	73.665	106.848	
10	73.492	106.582	
11	73.433	106.493	
12	73.424	106.479	
13	73.436	106.497	
14	73.385	106.422	
15	73.322	106.328	
16	73.156	106.089	
17	72.978	105.844	
18	72.870	105.699	
19	72.879	105.711	
20	72.784	105.587	
21	72.781	105.583	
22	72.687	105.462	
23	72.686	105.461	
24	72.718	105.502	
25	72.715	105.499	
26	72.778	105.579	
27	72.872	105.702	
28	72.933	105.784	
29	73.014	105.892	
30	72.860	105.687	
31	72.733	105.522	
32	72.654	105.419	
33	72.528	105.260	
34	72.431	105.137	
35	72.227	104.883	
36	72.164	104.806	
37	72.219	104.874	
38	72.076	104.698	
39	71.987	104.589	
40	71.998	104.602	
41	72.097	104.723	
42	72.182	104.828	

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Calico Rock, Arkansas

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

43	72.002	104.608
44	71.845	104.416
45	71.742	104.292
46	71.599	104.120
47	71.536	104.045
48	71.477	103.973
49	71.569	104.084
50	71.697	104.238
51	71.588	104.106
52	71.478	103.974
53	71.401	103.883
54	71.242	103.695
55	71.015	103.427
56	71.027	103.441
57	70.985	103.392
58	71.046	103.464
59	71.187	103.630
60	71.254	103.710
61	71.124	103.555
62	70.936	103.333
63	71.076	103.498
64	71.137	103.571
65	71.017	103.429
66	70.978	103.384
67	70.965	103.368
68	70.832	103.211
69	71.008	103.419
70	71.187	103.630
71	71.212	103.660
72	71.225	103.675
73	71.284	103.745
74	71.232	103.683
75	71.237	103.690
76	71.282	103.742
77	71.139	103.573
78	70.976	103.381
79	70.856	103.239
80	70.687	103.040
81	70.489	102.808
82	70.277	102.560
83	70.115	102.370
84	70.037	102.278
85	69.925	102.147
86	69.888	102.103
87	69.916	102.136
88	69.948	102.173
89	69.910	102.129
90	69.796	101.995
91	69.661	101.836
92	69.557	101.714
93	69.523	101.674
94	69.476	101.618

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

95	69.428	101.562
96	69.393	101.520
97	69.455	101.593
98	69.509	101.658
99	69.518	101.668
100	69.467	101.608
101	69.327	101.442
102	69.155	101.236
103	69.009	101.061
104	68.921	100.956
105	68.800	100.812
106	68.776	100.782
107	68.880	100.907
108	68.940	100.979
109	68.960	101.002
110	68.974	101.019
111	68.967	101.012
112	68.924	100.960
113	69.003	101.055
114	69.107	101.179
115	69.191	101.279
116	69.306	101.417
117	69.537	101.690
118	69.889	102.104
119	70.116	102.371
120	70.295	102.582
121	70.410	102.716
122	70.469	102.784
123	70.510	102.833
124	70.613	102.953
125	70.653	103.000
126	70.612	102.952
127	70.590	102.926
128	70.655	103.002
129	70.633	102.977
130	70.666	103.015
131	70.623	102.965
132	70.622	102.963
133	70.576	102.910
134	70.543	102.871
135	70.513	102.837
136	70.474	102.791
137	70.634	102.978
138	70.905	103.297
139	71.215	103.663
140	71.392	103.873
141	71.347	103.820
142	71.378	103.856
143	71.355	103.828
144	71.275	103.734
145	71.266	103.723
146	71.256	103.711

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

147	71.367	103.843
148	71.547	104.057
149	71.683	104.221
150	71.603	104.124
151	71.468	103.963
152	71.370	103.846
153	71.441	103.931
154	71.747	104.298
155	71.801	104.363
156	71.622	104.147
157	71.491	103.990
158	71.397	103.878
159	71.485	103.982
160	71.558	104.071
161	71.761	104.315
162	71.872	104.449
163	71.783	104.341
164	71.567	104.081
165	71.479	103.976
166	71.618	104.143
167	71.797	104.358
168	71.749	104.301
169	71.779	104.336
170	71.990	104.593
171	71.985	104.587
172	71.970	104.569
173	71.821	104.388
174	71.535	104.043
175	71.324	103.792
176	71.368	103.845
177	71.472	103.967
178	71.593	104.113
179	71.615	104.139
180	71.657	104.190
181	71.865	104.441
182	71.977	104.576
183	72.208	104.860
184	72.349	105.033
185	72.348	105.033
186	72.326	105.005
187	72.328	105.007
188	72.377	105.069
189	72.446	105.156
190	72.619	105.375
191	72.920	105.766
192	73.127	106.048
193	73.122	106.042
194	72.926	105.775
195	72.718	105.502
196	72.762	105.559
197	72.677	105.450
198	72.596	105.346

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

199	72.516	105.244
200	72.489	105.211
201	72.525	105.256
202	72.663	105.431
203	72.540	105.274
204	72.540	105.275
205	72.506	105.232
206	72.451	105.163
207	72.366	105.055
208	72.303	104.977
209	72.275	104.942
210	72.206	104.857
211	72.190	104.837
212	72.207	104.858
213	72.226	104.882
214	72.322	105.000
215	72.449	105.159
216	72.526	105.257
217	72.607	105.360
218	72.576	105.321
219	72.503	105.227
220	72.577	105.322
221	72.662	105.431
222	72.724	105.510
223	72.739	105.528
224	72.686	105.461
225	72.689	105.465
226	72.720	105.504
227	72.734	105.523
228	72.763	105.560
229	72.805	105.615
230	72.853	105.678
231	72.898	105.737
232	72.940	105.793
233	72.983	105.851
234	73.040	105.928
235	73.100	106.010
236	73.159	106.093
237	73.218	106.178
238	73.283	106.271
239	73.336	106.350
240	73.373	106.404
241	73.366	106.394
242	73.369	106.398
243	73.399	106.443
244	73.488	106.576
245	73.595	106.739
246	73.718	106.931
247	73.805	107.071
248	73.866	107.171
249	73.900	107.228
250	73.954	107.317

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

251	74.017	107.423
252	74.080	107.531
253	74.146	107.645
254	74.225	107.782
255	74.300	107.916
256	74.405	108.105
257	74.606	108.482
258	74.954	109.160
259	75.214	109.693
260	75.248	109.764
261	75.259	109.788
262	75.304	109.882
263	75.321	109.917
264	75.357	109.993
265	75.580	110.475
266	75.532	110.371
267	75.292	109.856
268	75.236	109.739
269	75.310	109.895
270	75.557	110.424
271	75.620	110.562
272	75.670	110.670
273	75.559	110.429
274	75.368	110.016
275	75.240	109.747
276	75.147	109.555
277	75.050	109.355
278	74.965	109.183
279	74.894	109.039
280	74.876	109.003
281	74.859	108.969
282	74.747	108.752
283	74.639	108.545
284	74.459	108.206
285	74.418	108.130
286	74.331	107.970
287	74.156	107.662
288	74.068	107.511
289	74.005	107.404
290	73.932	107.281
291	73.836	107.122
292	73.850	107.144
293	73.821	107.097
294	73.737	106.961
295	73.617	106.773
296	73.542	106.657
297	73.521	106.626
298	73.505	106.601
299	73.410	106.458
300	73.312	106.314
301	73.213	106.171
302	73.167	106.105

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

303	73.184	106.129
304	73.174	106.115
305	73.159	106.094
306	73.105	106.018
307	73.003	105.878
308	72.858	105.684
309	72.691	105.467
310	72.543	105.279
311	72.429	105.135
312	72.334	105.015
313	72.288	104.958
314	72.288	104.957
315	72.284	104.953
316	72.249	104.910
317	72.295	104.966
318	72.517	105.246
319	72.670	105.440
320	72.742	105.532
321	72.730	105.518
322	72.714	105.496
323	72.656	105.422
324	72.556	105.295
325	72.484	105.204
326	72.476	105.194
327	72.555	105.294
328	72.648	105.413
329	72.642	105.404
330	72.579	105.324
331	72.608	105.361
332	72.634	105.395
333	72.743	105.534
334	72.784	105.587
335	72.746	105.538
336	72.668	105.438
337	72.699	105.478
338	72.737	105.526
339	72.833	105.651
340	72.890	105.727
341	72.971	105.834
342	73.165	106.102
343	73.269	106.252
344	73.286	106.277
345	73.436	106.498
346	73.715	106.926
347	73.822	107.099
348	73.707	106.915
349	73.529	106.638
350	73.266	106.247
351	73.259	106.236
352	73.340	106.356
353	73.379	106.413
354	73.504	106.600

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

355	73.604	106.754
356	73.611	106.764
357	73.572	106.704
358	73.576	106.711
359	73.699	106.902

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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	0.598	-4.4660
1	0.584	-4.6717
2	0.571	-4.8673
3	0.558	-5.0673
4	0.545	-5.2721
5	0.533	-5.4655
6	0.524	-5.6134
7	0.512	-5.8146
8	0.500	-6.0206
9	0.489	-6.2138
10	0.478	-6.4114
11	0.467	-6.6137
12	0.457	-6.8017
13	0.448	-6.9744
14	0.444	-7.0523
15	0.437	-7.1904
16	0.429	-7.3509
17	0.422	-7.4938
18	0.418	-7.5765
19	0.415	-7.6390
20	0.414	-7.6600
21	0.415	-7.6390
22	0.422	-7.4938
23	0.427	-7.3914
24	0.428	-7.3711
25	0.424	-7.4527
26	0.429	-7.3509
27	0.438	-7.1705
28	0.445	-7.0328
29	0.444	-7.0523
30	0.440	-7.1309
31	0.441	-7.1112
32	0.452	-6.8972
33	0.462	-6.7072
34	0.473	-6.5028
35	0.478	-6.4114
36	0.483	-6.3211
37	0.484	-6.3031
38	0.483	-6.3211
39	0.480	-6.3752
40	0.485	-6.2852
41	0.486	-6.2673
42	0.487	-6.2494
43	0.488	-6.2316
44	0.491	-6.1784
45	0.501	-6.0032

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FIGURE 15:
Directional Antenna Values

46	0.509	-5.8656
47	0.514	-5.7807
48	0.517	-5.7302
49	0.521	-5.6632
50	0.521	-5.6632
51	0.518	-5.7134
52	0.527	-5.5638
53	0.539	-5.3682
54	0.551	-5.1770
55	0.564	-4.9744
56	0.577	-4.7765
57	0.591	-4.5683
58	0.604	-4.3793
59	0.618	-4.1802
60	0.633	-3.9719
61	0.648	-3.7685
62	0.663	-3.5697
63	0.678	-3.3754
64	0.694	-3.1728
65	0.710	-2.9748
66	0.727	-2.7693
67	0.744	-2.5685
68	0.761	-2.3723
69	0.779	-2.1693
70	0.797	-1.9708
71	0.815	-1.7768
72	0.834	-1.5767
73	0.854	-1.3708
74	0.874	-1.1698
75	0.894	-0.9732
76	0.915	-0.7716
77	0.936	-0.5745
78	0.958	-0.3727
79	0.980	-0.1755
80	1.000	0.0000
81	1.000	0.0000
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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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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Calico Rock, AR

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	0.999	-0.0087
297	0.976	-0.2110
298	0.954	-0.4090
299	0.932	-0.6117
300	0.911	-0.8096
301	0.890	-1.0122
302	0.870	-1.2096
303	0.850	-1.4116
304	0.831	-1.6080
305	0.812	-1.8089
306	0.793	-2.0145
307	0.775	-2.2140
308	0.758	-2.4066
309	0.740	-2.6154
310	0.723	-2.8172
311	0.707	-3.0116
312	0.691	-3.2104
313	0.675	-3.4139
314	0.660	-3.6091
315	0.645	-3.8088
316	0.630	-4.0132
317	0.631	-3.9994
318	0.634	-3.9582
319	0.635	-3.9445
320	0.620	-4.1522
321	0.606	-4.3505
322	0.592	-4.5536
323	0.585	-4.6569
324	0.581	-4.7165
325	0.574	-4.8218
326	0.576	-4.7916
327	0.568	-4.9130

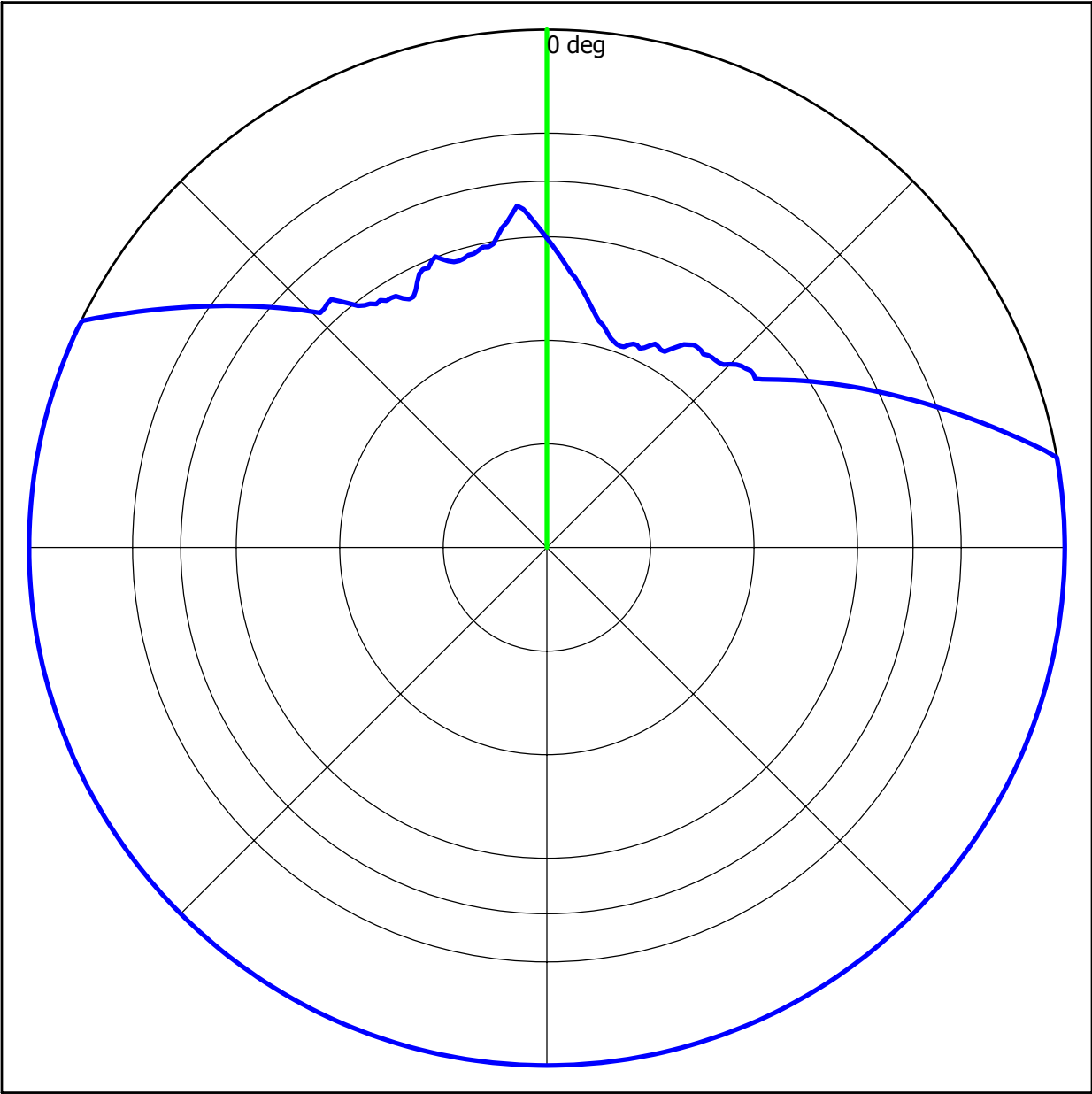
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FIGURE 15:
Directional Antenna Values

328	0.568	-4.9130
329	0.566	-4.9437
330	0.555	-5.1141
331	0.548	-5.2244
332	0.548	-5.2244
333	0.558	-5.0673
334	0.571	-4.8673
335	0.583	-4.6866
336	0.588	-4.6125
337	0.586	-4.6420
338	0.595	-4.5097
339	0.602	-4.4081
340	0.593	-4.5389
341	0.585	-4.6569
342	0.580	-4.7314
343	0.579	-4.7464
344	0.580	-4.7314
345	0.585	-4.6569
346	0.584	-4.6717
347	0.589	-4.5977
348	0.593	-4.5389
349	0.591	-4.5683
350	0.595	-4.5097
351	0.609	-4.3077
352	0.623	-4.1102
353	0.633	-3.9719
354	0.647	-3.7819
355	0.662	-3.5828
356	0.655	-3.6752
357	0.640	-3.8764
358	0.626	-4.0685
359	0.611	-4.2792

FIGURE 16

Antenna Pattern



Degrees	Field	Degrees	Field	Degrees	Field	Degrees	Field
000	0.598	090	1.000	180	1.000	270	1.000
010	0.478	100	1.000	190	1.000	280	1.000
020	0.414	110	1.000	200	1.000	290	1.000
030	0.440	120	1.000	210	1.000	300	0.911
040	0.485	130	1.000	220	1.000	310	0.723
050	0.521	140	1.000	230	1.000	320	0.620
060	0.633	150	1.000	240	1.000	330	0.555
070	0.797	160	1.000	250	1.000	340	0.593
080	1.000	170	1.000	260	1.000	350	0.595

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FIGURE 17

