

**TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
KTOY (FM)
TEXARKANA, ARKANSAS
CH 284 A 3.1KW (MAX-DA) 138M HAAT**

Technical Narrative

Jo-Al Broadcasting, Inc. ("Jo-Al"), licensee of KTOY (FM), serving Texarkana, Arkansas, is presently licensed to operate on Channel 284 A with an ERP of 3kW at 119m HAAT. This proposal seeks to modify the KTOY facility by re-locating to a new tower site some 3.6 miles closer to the community of license.

The proposed facility will operate with a power of 3.1 kW at 138m HAAT. No change in channel or class is proposed. The proposed facility is fully spaced to all stations, allotments, and applications, with the exception of first adjacent KHPA, Hope, AR and second adjacent KLMZ, Fouke, AR. Jo-Al proposes a directional antenna to provide contour protection for those stations.

All calculations herein were made using RF Investigator-FM version 2.5.17. The antenna will be mounted on an existing tower: Registration Number 1053162. It is believed that this proposal conforms to all applicable rules and regulations of the FCC.

Proposed Transmitter Location

Figure 1 is a copy of the tower registration where KTOY proposes to locate. Jo-Al proposes use of a directional 3-bay antenna mounted at 123m above ground level. The transmitter site is uniquely described as: 33-25-45 N / 94-07-11 W (NAD27). According to the tower registration, the site lies at 107m AMSL. Thus, the Center of Radiation Above Mean Sea Level will be 230m.

Interference Concerns

The 115 dBu predicted “blanketing” contour will extend approximately 0.7km from the transmitting site, containing approximately 1367 persons. 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.

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 2 shows the height above average terrain data. The average elevation was calculated at 92 meters. Because the transmitter site lies at 107 meters above sea level, it is 15 meters above average terrain. With the antenna center of radiation at 123 meters above ground level, that places the HAAT at 138 meters (15 + 123).

The terrain elevations were then used in combination with the effective radiated power for determining the distance to the coverage contours. Figure 3 shows the distance to contour values using 360 evenly spaced radials.

A contour coverage map is shown in Figure 4. The FCC predicted 70 dBu coverage contour encompasses over 80% of the Texarkana, Arkansas city limits and 93% of the Texarkana, Arkansas population, thus establishing compliance with the community coverage requirement. Figures 5-A, 5-B, and 5-C are line of sight graphs from the proposed site to the community of license.

Allocation Study

Figure 6 is an allocation study for Channel 284 A 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 KHPA, Hope, AR and KLMZ, Fouke, AR. Section 73.215 processing is requested toward KHPA and KLMZ. The actual separation distance to KHPA is 67.1 km; the minimum fully-spaced separation distance is 72 km; the minimum short-spaced separation distance is 49 km. The actual separation distance to KLMZ is 27 km; the minimum fully-spaced separation distance is 31 km; the minimum short-spaced separation distance is 25 km. Therefore, Jo-Al qualifies for short-spaced processing. Figure 7 is a short-spaced contour study, showing the predicted Protected and Interfering contours of KTOY (FM), KHPA and KLMZ. It is clear from Figure 7 that there will be no overlap between the 54dBu Interfering Contour of KTOY (FM) and the 60dBu Protected Contour of KHPA. Figure 8-

A is a “zoom-in” on the first area of concern which demonstrates that there will be no overlap between the 60dBu Protected Contour of KTOY (FM) and the 54dBu Interfering Contour of KHPA. Figure 8-B is a “zoom-in” on the second area of concern which demonstrates that there will be no overlap between the 60 dBu Protected Contour of KTOY (FM) and the 100dBu Interfering Contour of KLMZ. Figure 8-C is a “zoom in” on the third area of concern which demonstrates that there will be no overlap between the 100 dBu Interfering Contour of KTOY (FM) and the 60 dBu Protected Contour of KLMZ. Figure 9 is the numerical distance to contour output for the actual facilities of KHPA. Figure 10 is the numerical distance to contour output for the assumed maximum facilities of KLMZ. Figure 9 uses actual facilities since KHPA is authorized pursuant to Section 73.215. Figure 10 uses assumed maximum facilities since KLMZ is authorized pursuant to 73.207. The contours were determined by calculating all 360 radials using 3-second terrain data.

Directional Antenna

Jo-Al proposes to employ a directional antenna in order to protect KHPA and KLMZ as discussed above. Figure 11 shows the directional antenna values utilized in all related maps herein. Figure 12 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 6.2 kilowatts is employed with a radiation center of 123 meters 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 $1.5 \mu\text{W}/\text{cm}^2$. (See Figure 13-A.) This is less than one percent of the maximum Commission guideline value in an uncontrolled environment for a FM radio station. The only other known emitter in the nearby vicinity is co-located KFYX (FM) assigned to Texarkana, Arkansas. KFYX operates with 2900 watts (H&V) at 134 meters above ground level. KFYX employs a 2 bay one-wavelength spaced Jampro antenna. 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 $2 \mu\text{W}/\text{cm}^2$. (See Figure 13-B.) This, too, is less than one percent of the maximum Commission guideline value in an uncontrolled environment for a FM radio station. Therefore, the cumulative ground level power density from both KFYX (FM) and the proposed KTOY (FM) will be less than 100 percent of the uncontrolled standard and

in compliance with the Commission's Rules. 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.



Scott A. Gray

March 1, 2005

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FIGURE 1

Tower Registration

ASR Registration Search

Registration 1053162 [Reference Copy](#)**Registration Detail**

Reg Number	1053162	Status	Constructed
File Number	A0062566	Constructed	01/01/1984
FAA Study	83-ASW-172-OE	EMI	No
FAA Issue Date	03/25/1983	NEPA	No

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Communications Purposes

Location (in NAD83 Coordinates)

Lat/Long	33-25-45.0 N 094-07-12.0 W	.8 KM E OF RT 989 @ CHAPLEWOOD CEMETARY
City, State	TEXARKANA , TX	
Center of AM Array		

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
106.7	137.2
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
243.9	136.2

Painting and Lighting Specifications

FCC Paragraphs 1, 3, 12, 21

Owner & Contact Information

FRN

Licensee ID

OwnerKATO RADIO INC
Attention To: JOHN BELL
303 W BROAD ST
TEXARKANA , TX 75501P: (903)793-4671
E:**Contact**P:
E:**Last Action Status**

Status	Constructed	Received	06/29/1998
Purpose	New	Entered	07/01/1998
Mode	Mail In (Manual)		

Related Applications

06/29/1998 A0062566 - New (NE)

Comments

Comments

None

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Automated Letters

None

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CLOSE WINDOW

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Figure 2
Terrain Data

KTOY (FM)	Site Latitude 33-25-45 N	Site Longitude 94-07-11 W	Radials Used 8
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Site Elevation: 107m	Rad Center: 230m 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	93.2	136.8	80.0	109.0
45	93.6	136.4	80.0	108.2
90	98.9	131.1	85.3	121.0
135	82.7	147.3	75.0	99.5
180	81.0	149.0	60.0	103.0
225	81.6	148.4	75.0	102.5
270	105.3	124.7	88.0	127.6
315	98.2	131.8	86.0	109.0
Average 8 radials:	91.8	138.2		

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Figure 3:
Distances to Contours

ID'	'Site Latitude'	'Site Longitude'	'Site HAT'	
KTOY (FM)	33-25-45 N	94-07-11 W	91.8	
'Antenna'	'Radials Used'	'Antenna AMSL'	ERP (kW)	
Directional	360	230	3.1	
	70dBu (F 50:50)	60dBu (F 50:50)	54 dBu (F 50:10)	100 dBu (F 50:10)
'Bearing'	'To-Contour (km)'	'To-Contour (km)'	'To-Contour (km)'	'To-Contour (km)'
0	15.993	27.933	42.482	2.544
1	15.987	27.925	42.471	2.543
2	16.006	27.949	42.506	2.545
3	16.021	27.968	42.532	2.547
4	16.066	28.026	42.615	2.552
5	16.095	28.063	42.667	2.555
6	16.115	28.088	42.703	2.557
7	16.129	28.106	42.728	2.559
8	16.126	28.102	42.723	2.558
9	16.118	28.092	42.709	2.557
10	16.123	28.098	42.718	2.558
11	16.139	28.120	42.748	2.560
12	16.147	28.130	42.762	2.561
13	16.149	28.132	42.765	2.561
14	16.132	28.111	42.735	2.559
15	16.124	28.100	42.720	2.558
16	16.135	28.114	42.740	2.559
17	16.142	28.123	42.753	2.560
18	16.144	28.125	42.755	2.560
19	16.149	28.132	42.765	2.561
20	16.146	28.128	42.760	2.561
21	16.143	28.125	42.755	2.560
22	16.141	28.122	42.751	2.560
23	16.138	28.117	42.745	2.560
24	16.138	28.118	42.745	2.560
25	16.141	28.121	42.750	2.560
26	16.131	28.109	42.732	2.559
27	16.121	28.096	42.715	2.558
28	16.111	28.083	42.696	2.557
29	16.099	28.068	42.675	2.555
30	16.093	28.060	42.664	2.555
31	16.072	28.034	42.626	2.552
32	16.050	28.006	42.586	2.550
33	16.028	27.978	42.547	2.548
34	16.015	27.961	42.522	2.546
35	16.007	27.951	42.508	2.545
36	15.832	27.710	42.122	2.510
37	15.649	27.456	41.720	2.478
38	15.455	27.194	41.287	2.447
39	15.263	26.906	40.827	2.415
40	15.045	26.587	40.317	2.380
41	14.832	26.290	39.817	2.345
42	14.650	26.018	39.389	2.314

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Figure 3:
Distances to Contours

43	14.461	25.749	38.934	2.282
44	14.301	25.489	38.512	2.250
45	14.144	25.238	38.103	2.220
46	13.969	24.978	37.651	2.187
47	13.829	24.747	37.291	2.161
48	13.672	24.510	36.891	2.132
49	13.518	24.287	36.508	2.106
50	13.377	24.047	36.124	2.082
51	13.247	23.841	35.768	2.058
52	13.142	23.665	35.473	2.037
53	13.059	23.519	35.242	2.020
54	12.986	23.401	35.038	2.006
55	12.937	23.325	34.905	1.997
56	12.900	23.261	34.807	1.991
57	12.868	23.217	34.721	1.986
58	12.846	23.184	34.663	1.983
59	12.831	23.161	34.625	1.982
60	12.821	23.146	34.601	1.981
61	12.820	23.141	34.601	1.983
62	12.822	23.152	34.608	1.984
63	12.835	23.175	34.648	1.989
64	12.859	23.207	34.719	1.997
65	12.873	23.229	34.766	2.003
66	12.901	23.284	34.842	2.009
67	12.947	23.357	34.966	2.016
68	12.999	23.442	35.106	2.023
69	13.059	23.535	35.267	2.032
70	13.125	23.648	35.452	2.045
71	13.191	23.760	35.634	2.057
72	13.274	23.897	35.866	2.073
73	13.373	24.065	36.146	2.094
74	13.488	24.256	36.474	2.118
75	13.630	24.467	36.841	2.145
76	13.779	24.697	37.223	2.172
77	13.912	24.912	37.563	2.196
78	14.073	25.155	37.985	2.228
79	14.217	25.380	38.370	2.257
80	14.394	25.664	38.831	2.289
81	14.588	25.957	39.315	2.323
82	14.778	26.232	39.763	2.354
83	14.931	26.451	40.139	2.383
84	15.078	26.673	40.504	2.411
85	15.260	26.940	40.945	2.442
86	15.430	27.197	41.365	2.472
87	15.629	27.466	41.816	2.504
88	15.634	27.477	41.828	2.506
89	15.613	27.452	41.791	2.503
90	15.596	27.431	41.760	2.502
91	15.578	27.409	41.726	2.500
92	15.454	27.250	41.489	2.490
93	15.388	27.158	41.350	2.484
94	15.317	27.060	41.202	2.478

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Figure 3:
Distances to Contours

95	15.153	26.830	40.855	2.463
96	15.094	26.747	40.727	2.458
97	14.835	26.376	40.116	2.421
98	14.753	26.249	39.888	2.400
99	14.631	26.073	39.576	2.374
100	14.470	25.833	39.176	2.345
101	14.370	25.670	38.888	2.320
102	14.259	25.483	38.577	2.294
103	14.170	25.339	38.316	2.270
104	14.038	25.125	37.957	2.242
105	13.897	24.903	37.580	2.213
106	13.785	24.717	37.275	2.187
107	13.712	24.604	37.076	2.170
108	13.664	24.526	36.948	2.159
109	13.623	24.470	36.837	2.150
110	13.623	24.459	36.826	2.145
111	13.672	24.525	36.939	2.149
112	13.790	24.716	37.242	2.171
113	13.990	25.012	37.744	2.204
114	14.235	25.391	38.354	2.242
115	14.458	25.737	38.917	2.279
116	14.681	26.064	39.438	2.314
117	14.900	26.372	39.944	2.349
118	15.105	26.672	40.423	2.382
119	15.290	26.945	40.867	2.414
120	15.442	27.178	41.246	2.443
121	15.643	27.448	41.695	2.475
122	15.887	27.779	42.209	2.512
123	16.135	28.112	42.736	2.558
124	16.171	28.159	42.804	2.563
125	16.197	28.193	42.853	2.566
126	16.233	28.239	42.918	2.570
127	16.254	28.266	42.955	2.572
128	16.268	28.284	42.981	2.574
129	16.283	28.303	43.008	2.576
130	16.322	28.354	43.081	2.580
131	16.369	28.413	43.166	2.585
132	16.428	28.489	43.275	2.592
133	16.507	28.595	43.421	2.601
134	16.609	28.729	43.602	2.612
135	16.710	28.863	43.785	2.623
136	16.781	28.958	43.913	2.631
137	16.841	29.037	44.020	2.638
138	16.902	29.119	44.134	2.645
139	16.958	29.194	44.237	2.652
140	16.983	29.227	44.282	2.654
141	16.946	29.178	44.215	2.650
142	16.863	29.067	44.061	2.641
143	16.786	28.963	43.920	2.632
144	16.701	28.851	43.768	2.622
145	16.614	28.737	43.613	2.613
146	16.495	28.579	43.399	2.600

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Figure 3:
Distances to Contours

147	16.442	28.507	43.300	2.593
148	16.423	28.482	43.265	2.591
149	16.406	28.461	43.235	2.589
150	16.399	28.452	43.222	2.589
151	16.399	28.453	43.223	2.589
152	16.401	28.455	43.226	2.589
153	16.399	28.452	43.221	2.589
154	16.397	28.450	43.219	2.589
155	16.406	28.461	43.235	2.589
156	16.426	28.487	43.272	2.592
157	16.451	28.520	43.318	2.595
158	16.473	28.550	43.359	2.597
159	16.488	28.570	43.386	2.599
160	16.503	28.591	43.414	2.600
161	16.559	28.664	43.514	2.607
162	16.622	28.747	43.627	2.614
163	16.673	28.814	43.718	2.619
164	16.716	28.871	43.795	2.624
165	16.750	28.917	43.857	2.628
166	16.768	28.939	43.888	2.630
167	16.798	28.981	43.943	2.633
168	16.833	29.026	44.006	2.637
169	16.861	29.064	44.058	2.641
170	16.877	29.085	44.086	2.642
171	16.879	29.088	44.090	2.642
172	16.868	29.074	44.071	2.641
173	16.859	29.061	44.053	2.640
174	16.851	29.051	44.039	2.639
175	16.850	29.050	44.037	2.639
176	16.862	29.065	44.059	2.641
177	16.865	29.069	44.064	2.641
178	16.845	29.043	44.028	2.639
179	16.836	29.031	44.012	2.638
180	16.822	29.011	43.985	2.636
181	16.799	28.982	43.945	2.633
182	16.816	29.004	43.976	2.635
183	16.867	29.072	44.069	2.641
184	16.920	29.143	44.167	2.647
185	17.014	29.269	44.340	2.658
186	17.062	29.334	44.430	2.663
187	17.111	29.401	44.522	2.669
188	17.134	29.431	44.565	2.672
189	17.116	29.407	44.530	2.670
190	17.086	29.367	44.475	2.666
191	17.034	29.297	44.379	2.660
192	16.980	29.224	44.278	2.654
193	16.901	29.118	44.132	2.645
194	16.813	29.000	43.970	2.635
195	16.784	28.961	43.917	2.632
196	16.782	28.959	43.914	2.632
197	16.737	28.899	43.833	2.626
198	16.710	28.863	43.784	2.623

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Figure 3:
Distances to Contours

199	16.715	28.869	43.792	2.624
200	16.725	28.882	43.810	2.625
201	16.741	28.904	43.840	2.627
202	16.761	28.931	43.877	2.629
203	16.781	28.957	43.911	2.631
204	16.800	28.982	43.945	2.634
205	16.814	29.002	43.972	2.635
206	16.818	29.007	43.979	2.636
207	16.815	29.002	43.972	2.635
208	16.799	28.981	43.944	2.633
209	16.799	28.981	43.944	2.633
210	16.802	28.986	43.950	2.634
211	16.796	28.977	43.938	2.633
212	16.780	28.956	43.910	2.631
213	16.774	28.948	43.899	2.631
214	16.779	28.955	43.908	2.631
215	16.795	28.976	43.937	2.633
216	16.794	28.975	43.936	2.633
217	16.784	28.961	43.917	2.632
218	16.772	28.946	43.896	2.630
219	16.761	28.931	43.876	2.629
220	16.767	28.939	43.888	2.630
221	16.785	28.962	43.919	2.632
222	16.800	28.983	43.947	2.634
223	16.809	28.994	43.962	2.635
224	16.809	28.995	43.962	2.635
225	16.786	28.964	43.921	2.632
226	16.740	28.902	43.838	2.627
227	16.690	28.836	43.748	2.621
228	16.687	28.833	43.743	2.621
229	16.678	28.820	43.726	2.620
230	16.643	28.775	43.665	2.616
231	16.572	28.681	43.537	2.608
232	16.488	28.570	43.385	2.599
233	16.435	28.498	43.288	2.593
234	16.396	28.448	43.216	2.588
235	16.344	28.381	43.120	2.582
236	16.313	28.342	43.064	2.579
237	16.303	28.329	43.045	2.578
238	16.311	28.339	43.059	2.579
239	16.310	28.338	43.057	2.579
240	16.271	28.288	42.986	2.574
241	16.217	28.218	42.888	2.568
242	16.204	28.202	42.864	2.567
243	16.189	28.182	42.837	2.565
244	16.189	28.182	42.837	2.565
245	16.169	28.157	42.801	2.563
246	16.116	28.089	42.705	2.557
247	16.025	27.974	42.540	2.547
248	15.969	27.902	42.438	2.541
249	15.941	27.867	42.388	2.538
250	15.924	27.845	42.356	2.536

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Figure 3:
Distances to Contours

251	15.917	27.836	42.343	2.536
252	15.915	27.834	42.341	2.535
253	15.898	27.812	42.310	2.534
254	15.878	27.787	42.273	2.531
255	15.847	27.748	42.217	2.528
256	15.794	27.680	42.119	2.522
257	15.730	27.598	42.002	2.516
258	15.662	27.511	41.878	2.508
259	15.565	27.394	41.704	2.499
260	15.500	27.314	41.584	2.494
261	15.472	27.275	41.526	2.491
262	15.457	27.255	41.496	2.490
263	15.448	27.242	41.476	2.489
264	15.432	27.220	41.443	2.488
265	15.408	27.186	41.393	2.486
266	15.344	27.097	41.257	2.480
267	15.271	26.995	41.103	2.474
268	15.222	26.927	40.999	2.469
269	15.198	26.893	40.949	2.467
270	15.187	26.878	40.927	2.466
271	15.171	26.854	40.891	2.465
272	15.155	26.833	40.858	2.464
273	15.126	26.792	40.797	2.461
274	15.070	26.714	40.678	2.456
275	14.991	26.601	40.507	2.450
276	14.945	26.536	40.409	2.446
277	14.905	26.480	40.321	2.443
278	14.880	26.445	40.266	2.440
279	14.879	26.444	40.264	2.440
280	14.896	26.466	40.300	2.442
281	14.908	26.484	40.328	2.443
282	14.924	26.506	40.363	2.444
283	14.940	26.528	40.397	2.445
284	14.949	26.541	40.416	2.446
285	14.955	26.550	40.429	2.447
286	14.963	26.562	40.447	2.447
287	14.974	26.576	40.470	2.448
288	14.988	26.596	40.500	2.450
289	14.995	26.606	40.515	2.450
290	15.007	26.624	40.542	2.451
291	15.033	26.660	40.597	2.453
292	15.069	26.711	40.675	2.456
293	15.111	26.771	40.765	2.460
294	15.144	26.817	40.834	2.463
295	15.152	26.828	40.851	2.463
296	15.169	26.853	40.888	2.465
297	15.192	26.885	40.937	2.467
298	15.218	26.921	40.991	2.469
299	15.265	26.987	41.091	2.473
300	15.312	27.053	41.191	2.477
301	15.367	27.129	41.307	2.482
302	15.412	27.191	41.400	2.486

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Figure 3:
Distances to Contours

303	15.454	27.251	41.489	2.490
304	15.482	27.288	41.546	2.492
305	15.492	27.303	41.567	2.493
306	15.490	27.300	41.563	2.493
307	15.489	27.299	41.562	2.493
308	15.500	27.315	41.585	2.494
309	15.509	27.325	41.601	2.494
310	15.520	27.339	41.621	2.495
311	15.547	27.371	41.670	2.497
312	15.569	27.398	41.710	2.499
313	15.597	27.432	41.761	2.502
314	15.623	27.464	41.809	2.504
315	15.646	27.492	41.851	2.507
316	15.656	27.505	41.869	2.508
317	15.666	27.517	41.886	2.509
318	15.692	27.551	41.934	2.512
319	15.712	27.576	41.970	2.514
320	15.724	27.590	41.991	2.515
321	15.736	27.606	42.013	2.516
322	15.763	27.640	42.062	2.519
323	15.792	27.677	42.116	2.522
324	15.833	27.730	42.191	2.527
325	15.863	27.768	42.246	2.530
326	15.878	27.787	42.273	2.531
327	15.885	27.796	42.286	2.532
328	15.902	27.818	42.318	2.534
329	15.926	27.847	42.360	2.537
330	15.939	27.864	42.383	2.538
331	15.949	27.876	42.402	2.539
332	15.970	27.904	42.440	2.541
333	15.981	27.917	42.460	2.542
334	15.988	27.927	42.473	2.543
335	15.996	27.936	42.487	2.544
336	16.002	27.944	42.498	2.545
337	16.010	27.955	42.514	2.546
338	16.020	27.967	42.531	2.547
339	16.032	27.982	42.553	2.548
340	16.043	27.996	42.573	2.549
341	16.063	28.023	42.610	2.551
342	16.079	28.043	42.638	2.553
343	16.098	28.066	42.672	2.555
344	16.111	28.083	42.696	2.557
345	16.120	28.094	42.712	2.558
346	16.116	28.089	42.705	2.557
347	16.118	28.092	42.708	2.557
348	16.124	28.100	42.721	2.558
349	16.128	28.104	42.726	2.558
350	16.101	28.071	42.678	2.556
351	16.060	28.018	42.603	2.551
352	16.036	27.988	42.561	2.549
353	16.025	27.973	42.540	2.547
354	16.014	27.959	42.520	2.546

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Figure 3:
Distances to Contours

355	16.002	27.944	42.498	2.545
356	16.011	27.955	42.514	2.546
357	16.008	27.952	42.510	2.545
358	16.008	27.952	42.509	2.545
359	16.006	27.950	42.507	2.545

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Texarkana, AR

FIGURE 4

Proposed Contour Coverage Map

3.1kW (MAX-DA) @ 138m HAAT

33:25:45 N / 94:07:11 W

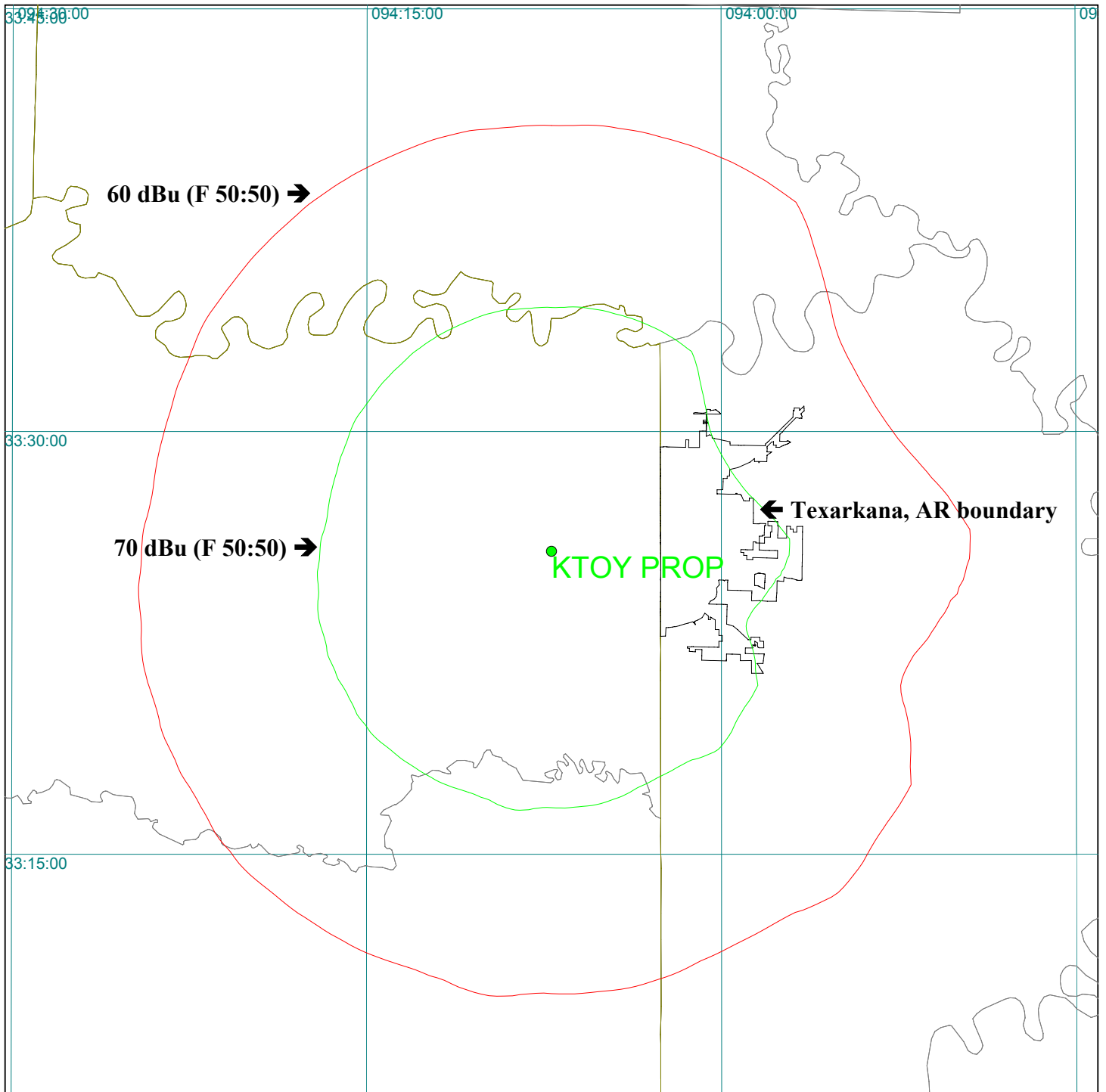


Figure 5-A

Terrain Profile @ 60°

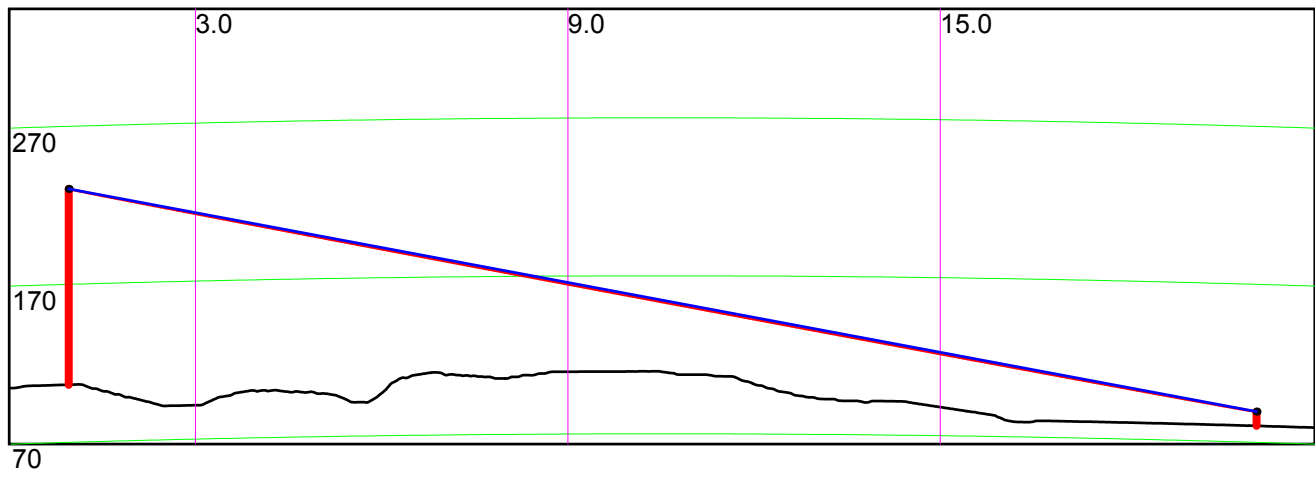


Figure 5-B

Terrain Profile @ 89°

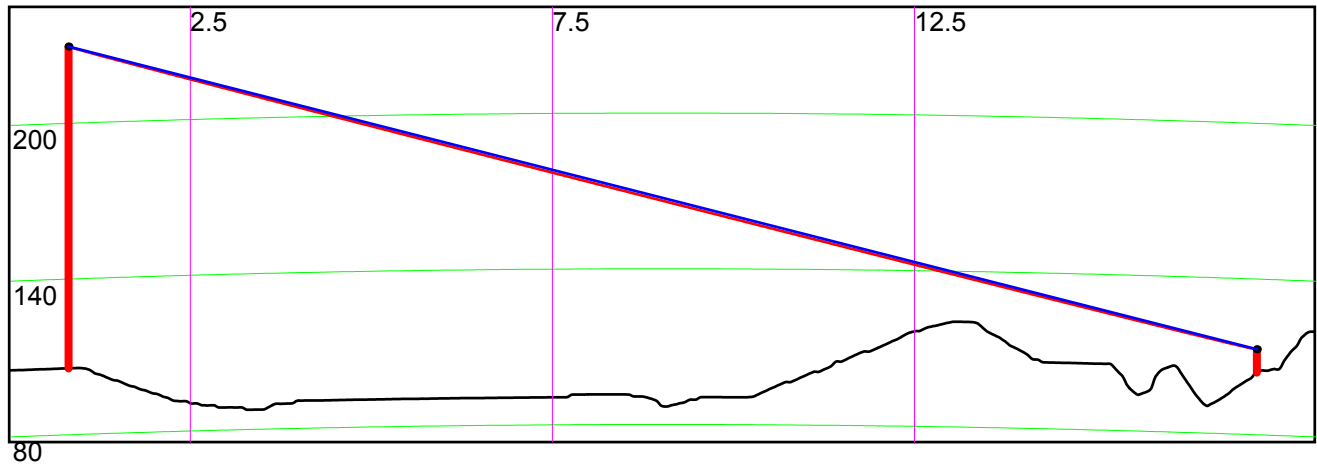
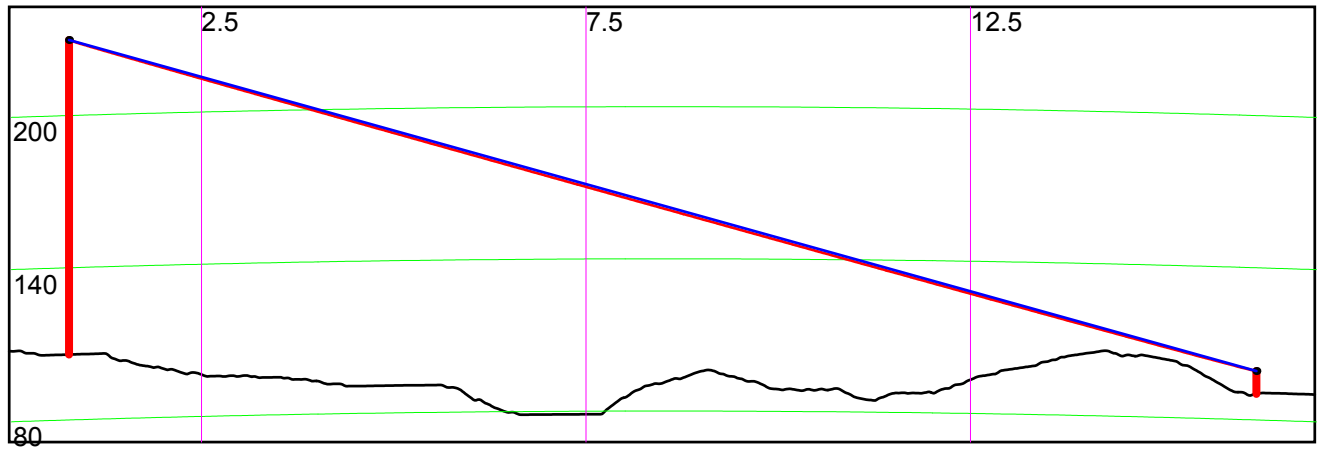


Figure 5-C

Terrain Profile @ 117°



KTOY (FM) - CH 284 A
Texarkana, Arkansas

Allocation Study at
Proposed Site

N 33:25:45 / W 94:07:11

Figure 6

Note	Callsign	Latitude (NAD27)	Longitude (NAD27)	City	State	Channel	Class	Status	Dist.(km)	Req'd Min	Clearance	ERP	HAAT	Bearing
1	KTOY	N33:27:25	W094:10:59	TEXARKANA	AR	284 : 104.7 MHz	A	LIC	6.65	115	-108.35	3.0	119	298
2	KHPA	N33:43:12	W093:29:11	HOPE	AR	285 : 104.9 MHz	A	LIC	67.07	72	-4.93	6.0	100	61
3	KLMZ	N33:21:05	W093:50:41	FOUKE	AR	282 : 104.3 MHz	A	LIC	27.00	31	-4.00	5.0	110	109
	KWNS	N33:04:17	W095:17:22	WINNSBORO	TX	284 : 104.7 MHz	A	LIC	116.00	115	1.00	2.8	150	250
	KJTX	N32:49:23	W094:28:32	JEFFERSON	TX	283 : 104.5 MHz	A	LIC	74.97	72	2.97	2.3	162	206
	STAT:ADD	N32:44:11	W094:08:10	OIL CITY	LA	285 : 104.9 MHz	A	ADD	76.85	72	4.85	0.0	0	181
	DK0ZL	N33:27:41	W094:31:00	NEW BOSTON	TX	286 : 105.1 MHz	A	VAC	37.08	31	6.08	0.0	0	276
	K231BA	N33:27:42	W094:02:48	WAKE VILLAGE	TX	231 : 94.1 MHz	DX	CP	7.69	0	7.69	0.3	0	62
	STAT:ADD	N33:51:00	W094:49:50	GARVIN	OK	283 : 104.5 MHz	A	ADD	80.79	72	8.79	0.0	0	305
	STAT:VAC	N33:28:30	W094:21:32	HOOKS	TX	231 : 94.1 MHz	A	VAC	22.81	10	12.81	0.0	0	283
	STAT:VAC	N34:04:41	W094:45:53	BROKEN BOW	OK	285 : 104.9 MHz	A	VAC	93.55	72	21.55	0.0	0	320
	KORI	N31:57:49	W093:53:58	MANSFIELD	LA	284 : 104.7 MHz	C3	LIC	163.83	142	21.83	25.0	100	173
	KNCB-FM	N32:55:54	W093:54:22	VIVIAN	LA	287 : 105.3 MHz	A	LIC	58.66	31	27.66	3.2	137	160
	KRBK	N35:11:01	W094:07:44	BOONEVILLE	AR	284 : 104.7 MHz	C2	LIC	194.61	166	28.61	50.0	150	360
	KWXE	N34:18:38	W093:32:04	GLENWOOD	AR	283 : 104.5 MHz	A	LIC	111.75	72	39.75	3.0	100	29
	NEW	N33:12:37	W093:42:03	EL DORADO	AR	286 : 105.1 MHz	DX	APP	45.94	0	45.94	0.3	0	122
	KMGC	N33:30:14	W092:48:38	CAMDEN	AR	283 : 104.5 MHz	A	LIC	121.99	72	49.99	3.0	100	86
	STAT:ADD	N34:17:16	W095:36:14	ANTLERS	OK	284 : 104.7 MHz	A	ADD	167.13	115	52.13	0.0	0	305
	K287AQ	N33:39:25	W093:33:00	HOPE	AR	287 : 105.3 MHz	DX	CP	58.64	0	58.64	0.0	0	64
	KBEF	N32:31:59	W093:11:34	GIBSLAND	LA	283 : 104.5 MHz	A	LIC	131.85	72	59.85	6.0	100	139
	KILX	N34:32:42	W094:18:21	HATFIELD	AR	281 : 104.1 MHz	C2	LIC	124.96	55	69.96	28.5	143	352
	STAT:ADD	N33:00:20	W093:08:27	HAYNESVILLE	LA	286 : 105.1 MHz	A	ADD	102.65	31	71.65	0.0	0	117
	KILX	N34:34:23	W094:14:55	HATFIELD	AR	281 : 104.1 MHz	C2	CP MOD	127.44	55	72.44	26.0	92	355
	NEW	N33:14:13	W093:16:19	MAGNOLIA	AR	231 : 94.1 MHz	DX	APP	81.76	0	81.76	0.2	0	105
	KQOR	N34:32:42	W094:18:21	MENA	AR	287 : 105.3 MHz	C3	LIC	124.96	42	82.96	12.5	143	352
	STAT:RSV	N33:47:21	W095:33:07	DETROIT	TX	282 : 104.3 MHz	C2	RSV	138.79	55	83.79	0.0	0	287
	K286AT	N33:15:09	W093:14:08	MAGNOLIA	AR	286 : 105.1 MHz	DX	CP	84.62	0	84.62	0.3	0	103
	K282AM	N33:09:05	W094:58:17	MOUNT PLEASANT	TX	282 : 104.3 MHz	DX	CP	85.10	0	85.10	0.3	0	249
	NEW	N33:38:45	W095:01:17	CLARKSVILLE	TX	282 : 104.3 MHz	DX	APP	87.13	0	87.13	0.1	0	286
	NEW	N32:38:17	W093:52:45	BLANCHARD	LA	230 : 93.9 MHz	DX	APP	90.57	0	90.57	0.2	0	166
	NEW	N33:11:28	W093:08:09	MAGNOLIA	AR	231 : 94.1 MHz	DX	APP	95.35	0	95.35	0.1	0	106
	KJLO-FM	N32:47:24	W092:13:15	MONROE	LA	281 : 104.1 MHz	C	CP	190.90	95	95.90	100.0	455	112
	KTOC-FM	N32:13:28	W092:43:27	JONESBORO	LA	285 : 104.9 MHz	C3	LIC	186.89	89	97.89	8.0	75	136
	KTOC-FM	N32:13:28	W092:43:27	JONESBORO	LA	285 : 104.9 MHz	C3	CP	186.89	89	97.89	25.0	72	136

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Texarkana, Arkansas

Allocation Study at
Proposed Site

N 33:25:45 / W 94:07:11

Figure 6

1 Applicant's present licensed facility.

2 Short-spaced processing requested. 73.215 required minimum: 49km.

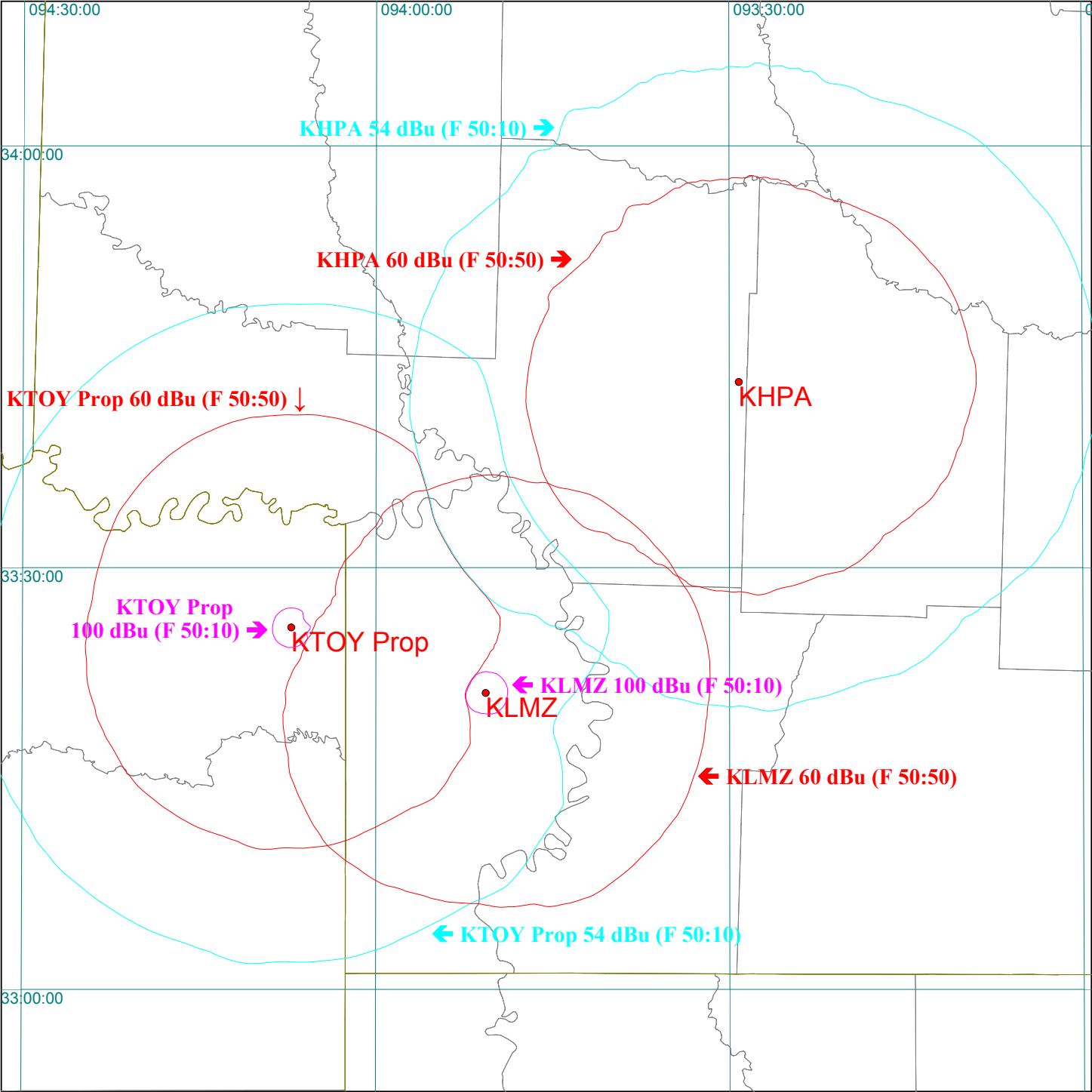
3 Short-spaced processing requested. 73.215 required minimum: 25km.

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Texarkana, AR

FIGURE 7

Section 73.215 Allocation Study

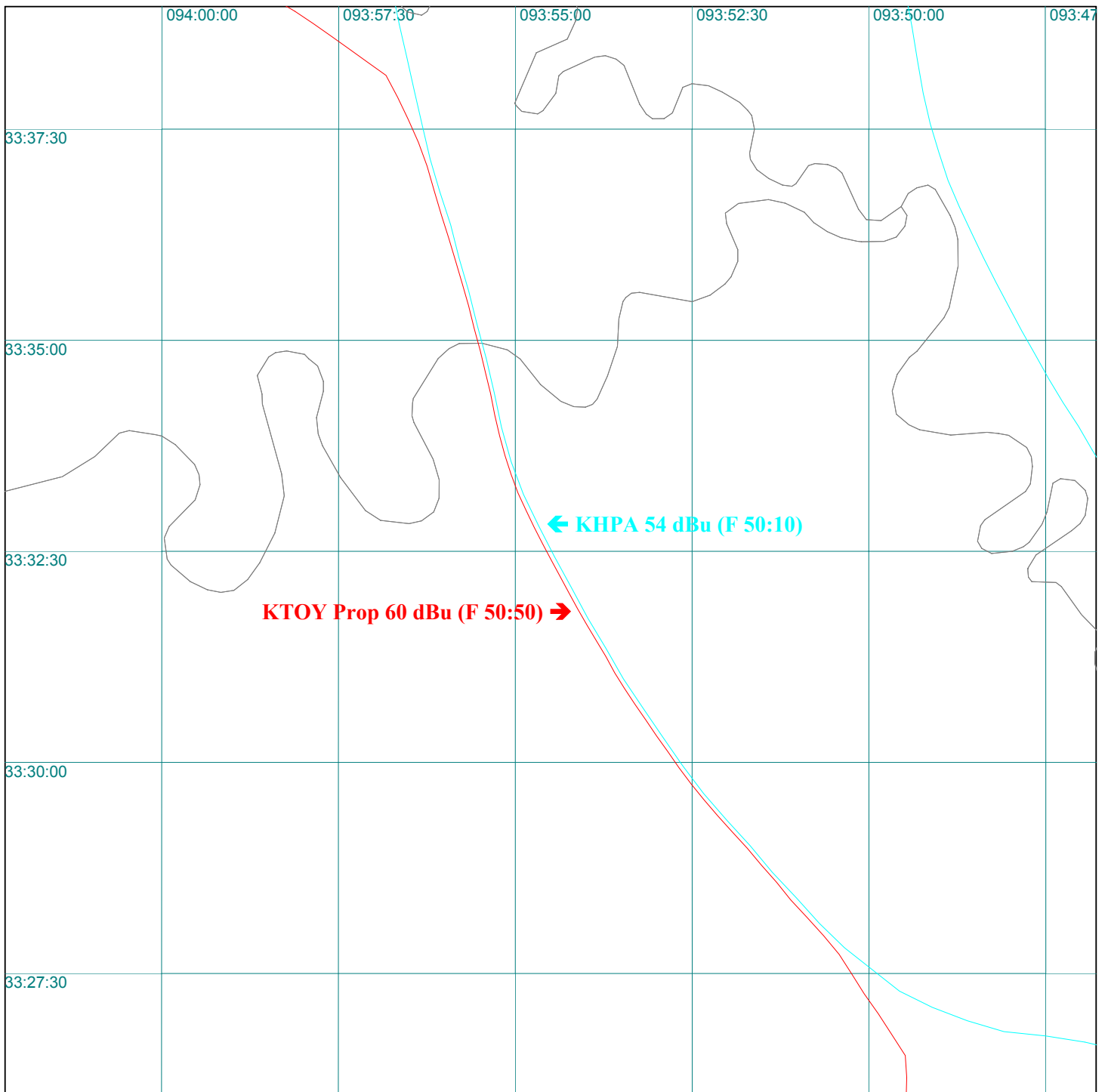


KTOY (FM) Ch 284 A

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FIGURE 8-A

Section 73.215 Allocation Study “Zoom”

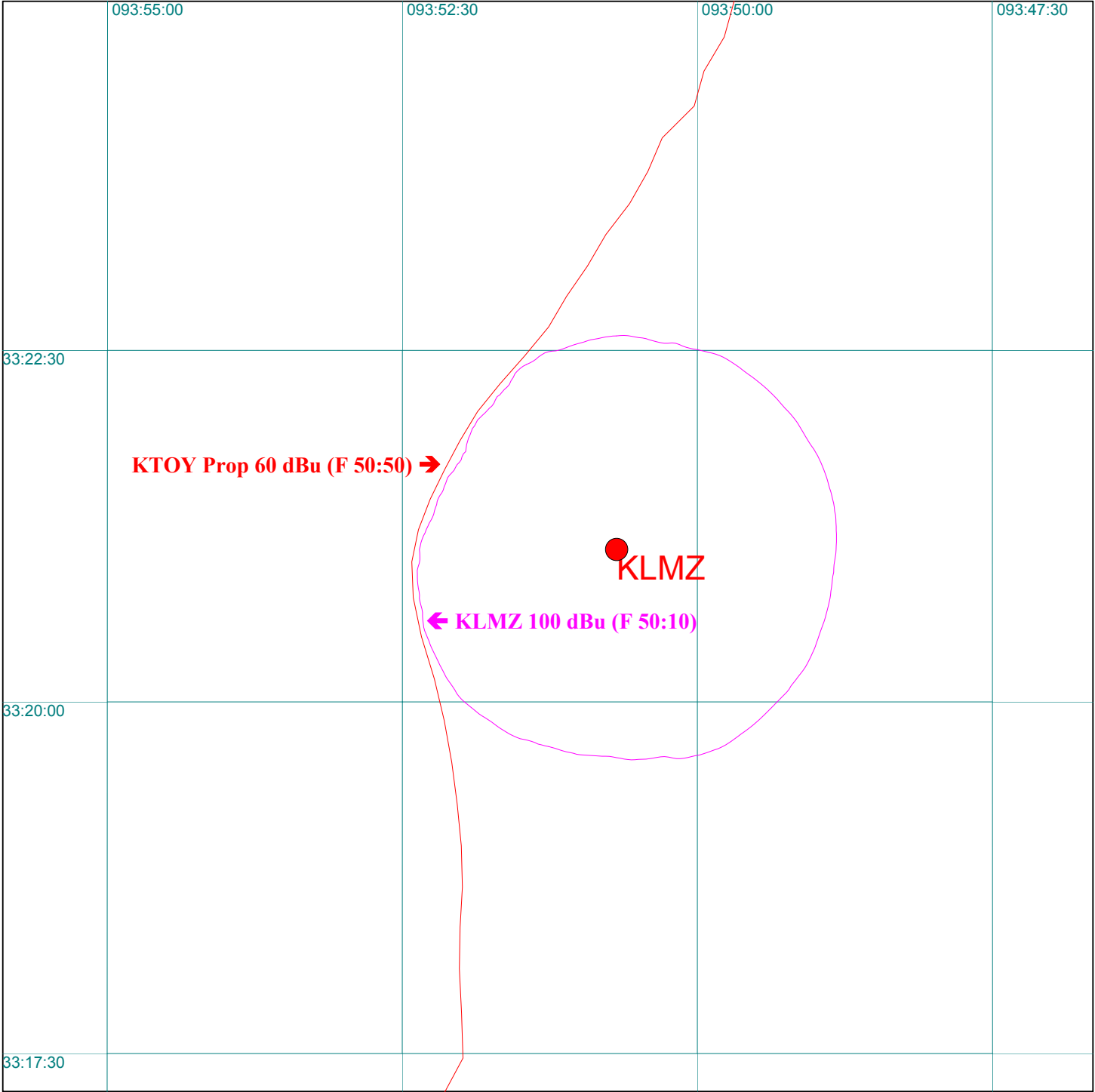


KTOY (FM) Ch 284 A

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FIGURE 8-B

Section 73.215 Allocation Study “Zoom”

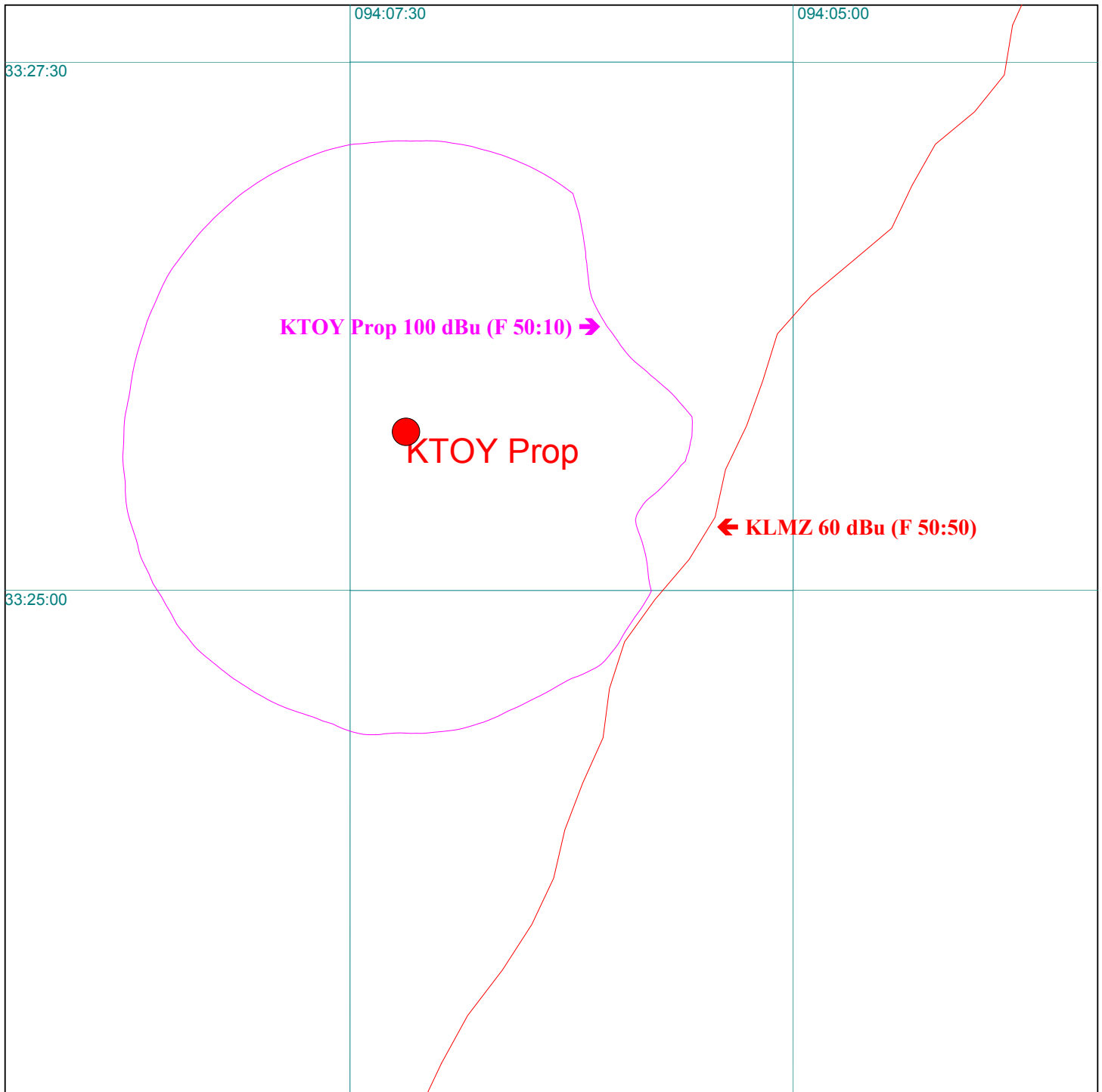


KTOY (FM) Ch 284 A

Texarkana, AR

FIGURE 8-C

Section 73.215 Allocation Study “Zoom”



KTOY (FM)
Ch 284 A
Texarkana, Arkansas

Figure 9:
Distances to Relevant Contours of KHPA, Hope, AR

'ID'	'Site Latitude'	'Site Longitude'	
KHPA (FM)	33-43-12 N	93-29-11 W	
'Antenna'	'Radials Used'	'Antenna AMSL'	ERP (kW)
Omni	360	195	6.0
	60dBu (F 50:50)	54 dBu (F 50:10)	
<u>'Bearing'</u>	<u>'To-Contour (km)'</u>	<u>'To-Contour (km)'</u>	
0	26.827	41.419	
1	26.808	41.388	
2	26.884	41.511	
3	27.180	41.987	
4	27.197	42.015	
5	27.074	41.818	
6	27.003	41.703	
7	27.119	41.890	
8	27.144	41.930	
9	27.028	41.744	
10	27.096	41.853	
11	27.181	41.989	
12	27.002	41.701	
13	27.170	41.971	
14	27.090	41.844	
15	26.843	41.446	
16	26.655	41.141	
17	26.592	41.038	
18	26.678	41.178	
19	26.778	41.339	
20	26.831	41.426	
21	26.864	41.479	
22	26.853	41.462	
23	26.800	41.376	
24	26.764	41.318	
25	26.748	41.291	
26	26.815	41.400	
27	26.898	41.533	
28	27.017	41.726	
29	27.159	41.954	
30	27.278	42.148	
31	27.431	42.395	
32	27.527	42.547	
33	27.592	42.648	
34	27.701	42.816	
35	27.762	42.910	
36	27.886	43.101	
37	28.019	43.308	
38	28.139	43.494	
39	28.263	43.685	
40	28.404	43.900	
41	28.554	44.128	
42	28.694	44.334	

KTOY (FM)
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Figure 9:
Distances to Relevant Contours of KHPA, Hope, AR

43	28.819	44.517
44	28.921	44.667
45	28.988	44.765
46	29.063	44.873
47	29.072	44.887
48	29.095	44.921
49	29.128	44.969
50	29.177	45.040
51	29.257	45.158
52	29.313	45.240
53	29.376	45.333
54	29.427	45.407
55	29.469	45.468
56	29.518	45.539
57	29.577	45.620
58	29.652	45.723
59	29.790	45.914
60	29.914	46.084
61	30.030	46.246
62	30.121	46.371
63	30.188	46.464
64	30.245	46.544
65	30.283	46.596
66	30.330	46.660
67	30.372	46.718
68	30.413	46.774
69	30.455	46.832
70	30.487	46.876
71	30.505	46.900
72	30.505	46.899
73	30.506	46.901
74	30.523	46.923
75	30.547	46.955
76	30.564	46.976
77	30.598	47.021
78	30.613	47.040
79	30.620	47.049
80	30.627	47.059
81	30.643	47.080
82	30.709	47.166
83	30.830	47.324
84	30.968	47.504
85	31.085	47.656
86	31.148	47.738
87	31.175	47.773
88	31.194	47.797
89	31.195	47.798
90	31.176	47.774
91	31.143	47.732
92	31.090	47.662
93	31.003	47.549
94	30.917	47.437

KTOY (FM)
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Figure 9:
Distances to Relevant Contours of KHPA, Hope, AR

95	30.815	47.305
96	30.702	47.157
97	30.589	47.008
98	30.531	46.933
99	30.451	46.826
100	30.366	46.710
101	30.280	46.592
102	30.230	46.523
103	30.245	46.543
104	30.292	46.608
105	30.300	46.619
106	30.233	46.526
107	30.095	46.335
108	30.036	46.254
109	30.089	46.328
110	30.064	46.293
111	30.072	46.304
112	30.082	46.317
113	30.077	46.311
114	30.079	46.314
115	29.998	46.202
116	29.842	45.985
117	29.711	45.805
118	29.700	45.789
119	29.659	45.733
120	29.608	45.663
121	29.552	45.586
122	29.441	45.427
123	29.317	45.246
124	29.146	44.995
125	28.930	44.680
126	28.791	44.477
127	28.725	44.379
128	28.648	44.266
129	28.535	44.099
130	28.391	43.880
131	28.231	43.635
132	28.198	43.584
133	28.152	43.514
134	28.080	43.402
135	27.963	43.221
136	27.753	42.897
137	27.728	42.858
138	27.899	43.122
139	27.998	43.276
140	27.995	43.271
141	28.104	43.440
142	28.150	43.510
143	28.167	43.536
144	28.246	43.658
145	28.314	43.762
146	28.362	43.835

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Figure 9:
Distances to Relevant Contours of KHPA, Hope, AR

147	28.362	43.836
148	28.351	43.820
149	28.342	43.805
150	28.349	43.816
151	28.346	43.812
152	28.231	43.636
153	28.079	43.401
154	27.953	43.205
155	27.832	43.017
156	27.730	42.860
157	27.658	42.749
158	27.597	42.655
159	27.624	42.698
160	27.627	42.703
161	27.640	42.723
162	27.656	42.747
163	27.671	42.770
164	27.690	42.800
165	27.694	42.806
166	27.685	42.791
167	27.666	42.762
168	27.658	42.750
169	27.682	42.786
170	27.743	42.881
171	27.851	43.047
172	27.986	43.257
173	28.077	43.397
174	28.107	43.443
175	28.094	43.424
176	27.990	43.262
177	27.830	43.014
178	27.709	42.829
179	27.589	42.644
180	27.556	42.593
181	27.605	42.667
182	27.631	42.709
183	27.582	42.633
184	27.552	42.586
185	27.552	42.587
186	27.618	42.687
187	27.601	42.662
188	27.561	42.600
189	27.489	42.489
190	27.453	42.430
191	27.426	42.387
192	27.460	42.442
193	27.487	42.485
194	27.372	42.299
195	27.093	41.848
196	26.948	41.616
197	26.791	41.361
198	26.788	41.357

KTOY (FM)
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Figure 9:
Distances to Relevant Contours of KHPA, Hope, AR

199	26.626	41.093
200	26.391	40.708
201	26.200	40.387
202	26.067	40.163
203	26.082	40.187
204	26.215	40.412
205	26.233	40.442
206	26.073	40.173
207	25.963	39.987
208	25.904	39.889
209	25.844	39.788
210	25.886	39.858
211	25.865	39.823
212	25.675	39.505
213	25.596	39.372
214	25.630	39.429
215	25.804	39.721
216	25.934	39.939
217	26.117	40.247
218	26.287	40.533
219	26.341	40.624
220	26.319	40.587
221	26.382	40.693
222	26.616	41.076
223	26.912	41.557
224	27.261	42.119
225	27.502	42.510
226	27.721	42.847
227	27.901	43.124
228	27.979	43.246
229	28.066	43.380
230	28.112	43.451
231	28.134	43.485
232	28.173	43.545
233	28.192	43.575
234	28.242	43.651
235	28.289	43.723
236	28.311	43.757
237	28.320	43.771
238	28.334	43.793
239	28.355	43.825
240	28.345	43.811
241	28.359	43.831
242	28.356	43.827
243	28.364	43.840
244	28.370	43.848
245	28.371	43.849
246	28.337	43.798
247	28.266	43.688
248	28.172	43.544
249	28.098	43.430
250	28.051	43.357

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Figure 9:
Distances to Relevant Contours of KHPA, Hope, AR

251	28.004	43.284
252	27.983	43.252
253	27.955	43.208
254	27.967	43.227
255	27.975	43.239
256	27.964	43.223
257	27.957	43.211
258	27.957	43.212
259	27.968	43.228
260	27.975	43.240
261	28.011	43.295
262	28.049	43.353
263	28.079	43.400
264	28.092	43.421
265	28.061	43.372
266	28.007	43.289
267	27.976	43.241
268	27.923	43.159
269	27.864	43.068
270	27.800	42.968
271	27.756	42.901
272	27.708	42.827
273	27.670	42.769
274	27.635	42.715
275	27.579	42.628
276	27.510	42.522
277	27.465	42.450
278	27.475	42.466
279	27.453	42.431
280	27.419	42.375
281	27.392	42.332
282	27.335	42.239
283	27.235	42.076
284	27.137	41.919
285	27.095	41.851
286	27.041	41.764
287	26.950	41.618
288	26.920	41.570
289	26.866	41.483
290	26.787	41.355
291	26.746	41.288
292	26.861	41.474
293	27.081	41.829
294	27.399	42.342
295	27.417	42.372
296	27.401	42.346
297	27.289	42.164
298	27.065	41.803
299	26.862	41.477
300	26.685	41.190
301	26.529	40.936
302	26.405	40.731

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Figure 9:
Distances to Relevant Contours of KHPA, Hope, AR

303	26.264	40.495
304	26.145	40.294
305	26.033	40.106
306	25.904	39.888
307	25.836	39.775
308	25.743	39.618
309	25.617	39.408
310	25.593	39.368
311	25.684	39.520
312	25.716	39.573
313	25.763	39.653
314	25.822	39.752
315	25.866	39.824
316	26.009	40.064
317	26.225	40.430
318	26.246	40.465
319	26.127	40.264
320	25.862	39.819
321	25.610	39.395
322	25.633	39.434
323	25.752	39.634
324	26.007	40.061
325	26.405	40.732
326	26.706	41.223
327	27.005	41.707
328	27.139	41.923
329	27.073	41.817
330	26.851	41.458
331	26.640	41.116
332	26.522	40.924
333	26.214	40.411
334	26.199	40.386
335	26.201	40.389
336	26.218	40.417
337	26.264	40.495
338	26.344	40.628
339	26.455	40.814
340	26.576	41.011
341	26.729	41.261
342	26.796	41.369
343	26.686	41.191
344	26.827	41.419
345	26.977	41.661
346	26.983	41.671
347	26.969	41.649
348	26.858	41.470
349	26.946	41.612
350	26.934	41.593
351	26.777	41.339
352	26.667	41.161
353	26.686	41.191
354	26.723	41.251

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Figure 9:
Distances to Relevant Contours of KHPA, Hope, AR

355	26.752	41.298
356	26.683	41.185
357	26.659	41.146
358	26.876	41.499
359	26.860	41.473

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Figure 10:
Distances to Relevant Contours of KLMZ, Fouke, AR

'ID'	'Site Latitude'	'Site Longitude'	
KLMZ (FM)	33-21-05 N	93-50-41 W	
'Antenna'	'Radials Used'	'Antenna AMSL'	ERP (kW)
Omni	360	182	6.0
	60dBu (F 50:50)	100 dBu (F 50:10)	
<u>'Bearing'</u>	<u>'To-Contour (km)'</u>	<u>'To-Contour (km)'</u>	
0	28.634	2.809	
1	28.681	2.813	
2	28.710	2.816	
3	28.694	2.814	
4	28.643	2.810	
5	28.587	2.805	
6	28.553	2.801	
7	28.556	2.802	
8	28.518	2.798	
9	28.431	2.790	
10	28.383	2.785	
11	28.337	2.781	
12	28.315	2.779	
13	28.361	2.783	
14	28.467	2.793	
15	28.666	2.812	
16	28.757	2.820	
17	28.725	2.817	
18	28.668	2.812	
19	28.663	2.812	
20	28.699	2.815	
21	28.787	2.823	
22	28.920	2.835	
23	29.006	2.843	
24	29.090	2.851	
25	29.203	2.861	
26	29.308	2.871	
27	29.414	2.881	
28	29.481	2.887	
29	29.513	2.890	
30	29.528	2.891	
31	29.527	2.891	
32	29.516	2.890	
33	29.496	2.888	
34	29.476	2.886	
35	29.457	2.885	
36	29.428	2.882	
37	29.427	2.882	
38	29.444	2.883	
39	29.471	2.886	
40	29.490	2.888	
41	29.498	2.888	
42	29.510	2.889	

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Figure 10:
Distances to Relevant Contours of KLMZ, Fouke, AR

43	29.526	2.891
44	29.530	2.891
45	29.539	2.892
46	29.546	2.893
47	29.539	2.892
48	29.515	2.890
49	29.501	2.889
50	29.523	2.891
51	29.565	2.894
52	29.606	2.898
53	29.648	2.901
54	29.673	2.904
55	29.665	2.903
56	29.630	2.900
57	29.601	2.897
58	29.584	2.896
59	29.573	2.895
60	29.582	2.896
61	29.605	2.898
62	29.659	2.902
63	29.728	2.908
64	29.780	2.913
65	29.821	2.916
66	29.841	2.918
67	29.847	2.919
68	29.853	2.919
69	29.854	2.919
70	29.850	2.919
71	29.845	2.919
72	29.828	2.917
73	29.808	2.915
74	29.810	2.916
75	29.831	2.917
76	29.830	2.917
77	29.828	2.917
78	29.827	2.917
79	29.805	2.915
80	29.766	2.912
81	29.781	2.913
82	29.761	2.911
83	29.698	2.906
84	29.658	2.902
85	29.628	2.900
86	29.603	2.898
87	29.577	2.895
88	29.542	2.892
89	29.497	2.888
90	29.466	2.885
91	29.436	2.883
92	29.369	2.877
93	29.302	2.870
94	29.252	2.866

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Figure 10:
Distances to Relevant Contours of KLMZ, Fouke, AR

95	29.253	2.866
96	29.288	2.869
97	29.234	2.864
98	29.233	2.864
99	29.262	2.867
100	29.288	2.869
101	29.313	2.871
102	29.358	2.876
103	29.392	2.879
104	29.403	2.880
105	29.409	2.880
106	29.429	2.882
107	29.444	2.883
108	29.469	2.886
109	29.495	2.888
110	29.498	2.888
111	29.488	2.887
112	29.500	2.889
113	29.536	2.892
114	29.588	2.896
115	29.645	2.901
116	29.715	2.907
117	29.758	2.911
118	29.787	2.914
119	29.815	2.916
120	29.847	2.919
121	29.880	2.922
122	29.897	2.923
123	29.890	2.923
124	29.851	2.919
125	29.811	2.916
126	29.792	2.914
127	29.766	2.912
128	29.765	2.912
129	29.833	2.918
130	29.861	2.920
131	29.806	2.915
132	29.775	2.913
133	29.750	2.910
134	29.746	2.910
135	29.747	2.910
136	29.752	2.911
137	29.766	2.912
138	29.791	2.914
139	29.824	2.917
140	29.856	2.920
141	29.874	2.921
142	29.892	2.923
143	29.906	2.924
144	29.918	2.925
145	29.920	2.925
146	29.939	2.927

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Figure 10:
Distances to Relevant Contours of KLMZ, Fouke, AR

147	29.981	2.930
148	30.024	2.934
149	30.056	2.937
150	30.086	2.940
151	30.103	2.941
152	30.108	2.941
153	30.078	2.939
154	29.997	2.932
155	29.936	2.927
156	29.883	2.922
157	29.831	2.917
158	29.776	2.913
159	29.668	2.903
160	29.579	2.895
161	29.516	2.890
162	29.450	2.884
163	29.344	2.874
164	29.196	2.861
165	28.933	2.836
166	28.676	2.813
167	28.470	2.794
168	28.398	2.787
169	28.387	2.786
170	28.364	2.783
171	28.368	2.784
172	28.356	2.783
173	28.313	2.779
174	28.265	2.774
175	28.265	2.774
176	28.243	2.772
177	28.161	2.764
178	28.069	2.755
179	27.945	2.743
180	27.877	2.737
181	27.783	2.728
182	27.714	2.721
183	27.724	2.722
184	27.755	2.725
185	27.753	2.725
186	27.767	2.726
187	27.790	2.729
188	27.827	2.732
189	27.866	2.736
190	27.914	2.740
191	27.925	2.741
192	27.879	2.737
193	27.884	2.737
194	27.915	2.740
195	27.913	2.740
196	27.897	2.739
197	27.868	2.736
198	27.882	2.737

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Figure 10:
Distances to Relevant Contours of KLMZ, Fouke, AR

199	27.905	2.740
200	27.981	2.747
201	28.027	2.751
202	28.088	2.757
203	28.077	2.756
204	28.112	2.759
205	28.192	2.767
206	28.308	2.778
207	28.436	2.790
208	28.509	2.797
209	28.547	2.801
210	28.576	2.804
211	28.587	2.805
212	28.585	2.804
213	28.581	2.804
214	28.575	2.803
215	28.548	2.801
216	28.552	2.801
217	28.566	2.803
218	28.609	2.807
219	28.680	2.813
220	28.729	2.818
221	28.738	2.818
222	28.756	2.820
223	28.794	2.824
224	28.832	2.827
225	28.878	2.831
226	28.901	2.833
227	28.884	2.832
228	28.829	2.827
229	28.715	2.816
230	28.651	2.810
231	28.610	2.807
232	28.583	2.804
233	28.539	2.800
234	28.464	2.793
235	28.386	2.786
236	28.323	2.780
237	28.260	2.774
238	28.206	2.768
239	28.158	2.764
240	28.107	2.759
241	28.087	2.757
242	28.057	2.754
243	28.010	2.750
244	27.950	2.744
245	27.929	2.742
246	27.906	2.740
247	27.911	2.740
248	27.843	2.734
249	27.708	2.721
250	27.596	2.710

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Figure 10:
Distances to Relevant Contours of KLMZ, Fouke, AR

251	27.473	2.698
252	27.314	2.683
253	27.240	2.675
254	27.238	2.675
255	27.228	2.674
256	27.195	2.671
257	27.078	2.659
258	27.037	2.655
259	27.035	2.655
260	27.022	2.654
261	26.984	2.650
262	26.922	2.644
263	26.860	2.638
264	26.821	2.634
265	26.669	2.619
266	26.470	2.600
267	26.369	2.589
268	26.344	2.587
269	26.346	2.587
270	26.400	2.593
271	26.288	2.581
272	26.198	2.572
273	26.082	2.561
274	25.925	2.545
275	25.744	2.527
276	25.626	2.515
277	25.473	2.500
278	25.299	2.487
279	25.057	2.470
280	24.868	2.456
281	24.754	2.448
282	24.742	2.447
283	24.678	2.443
284	24.597	2.437
285	24.650	2.441
286	24.631	2.439
287	24.481	2.429
288	24.301	2.416
289	24.202	2.409
290	24.254	2.412
291	24.216	2.410
292	24.229	2.411
293	24.266	2.413
294	24.129	2.403
295	23.928	2.389
296	23.739	2.376
297	23.746	2.376
298	23.730	2.375
299	23.564	2.364
300	23.496	2.359
301	23.655	2.370
302	23.707	2.374

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Figure 10:
Distances to Relevant Contours of KLMZ, Fouke, AR

303	23.574	2.364
304	23.877	2.386
305	24.171	2.406
306	24.358	2.420
307	24.570	2.435
308	24.706	2.445
309	24.910	2.459
310	25.116	2.474
311	25.140	2.476
312	25.281	2.486
313	25.434	2.497
314	25.402	2.495
315	25.411	2.495
316	25.381	2.493
317	25.417	2.496
318	25.458	2.499
319	25.471	2.500
320	25.556	2.508
321	25.790	2.531
322	25.971	2.549
323	25.958	2.548
324	26.066	2.559
325	26.168	2.569
326	26.227	2.575
327	26.343	2.587
328	26.650	2.617
329	26.871	2.639
330	27.189	2.670
331	27.337	2.685
332	27.453	2.696
333	27.549	2.706
334	27.547	2.705
335	27.538	2.705
336	27.563	2.707
337	27.653	2.715
338	27.829	2.732
339	27.947	2.744
340	28.036	2.752
341	28.019	2.750
342	27.936	2.742
343	27.818	2.731
344	27.773	2.727
345	27.803	2.730
346	27.861	2.735
347	27.929	2.742
348	27.981	2.747
349	28.038	2.752
350	28.079	2.756
351	28.136	2.762
352	28.234	2.771
353	28.294	2.777
354	28.325	2.780

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Figure 10:
Distances to Relevant Contours of KLMZ, Fouke, AR

355	28.356	2.783
356	28.444	2.791
357	28.504	2.797
358	28.557	2.802
359	28.596	2.805

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FIGURE 11:
Directional Antenna Values

<u>'Azimuth'</u>	<u>'Field Value'</u>	<u>'dB Gain'</u>
0	1.000	0.0000
1	1.000	0.0000
2	1.000	0.0000
3	1.000	0.0000
4	1.000	0.0000
5	1.000	0.0000
6	1.000	0.0000
7	1.000	0.0000
8	1.000	0.0000
9	1.000	0.0000
10	1.000	0.0000
11	1.000	0.0000
12	1.000	0.0000
13	1.000	0.0000
14	1.000	0.0000
15	1.000	0.0000
16	1.000	0.0000
17	1.000	0.0000
18	1.000	0.0000
19	1.000	0.0000
20	1.000	0.0000
21	1.000	0.0000
22	1.000	0.0000
23	1.000	0.0000
24	1.000	0.0000
25	1.000	0.0000
26	1.000	0.0000
27	1.000	0.0000
28	1.000	0.0000
29	1.000	0.0000
30	1.000	0.0000
31	1.000	0.0000
32	1.000	0.0000
33	1.000	0.0000
34	1.000	0.0000
35	1.000	0.0000
36	0.980	-0.1755
37	0.958	-0.3727
38	0.936	-0.5745
39	0.915	-0.7716
40	0.894	-0.9732
41	0.873	-1.1797
42	0.854	-1.3708
43	0.834	-1.5767
44	0.815	-1.7768
45	0.798	-1.9599

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FIGURE 11:
Directional Antenna Values

46	0.779	-2.1693
47	0.765	-2.3268
48	0.750	-2.4988
49	0.737	-2.6507
50	0.726	-2.7813
51	0.715	-2.9139
52	0.704	-3.0485
53	0.696	-3.1478
54	0.689	-3.2356
55	0.685	-3.2862
56	0.683	-3.3116
57	0.681	-3.3371
58	0.680	-3.3498
59	0.680	-3.3498
60	0.680	-3.3498
61	0.681	-3.3371
62	0.682	-3.3243
63	0.685	-3.2862
64	0.690	-3.2230
65	0.694	-3.1728
66	0.697	-3.1353
67	0.700	-3.0980
68	0.702	-3.0733
69	0.706	-3.0239
70	0.712	-2.9504
71	0.718	-2.8775
72	0.726	-2.7813
73	0.737	-2.6507
74	0.750	-2.4988
75	0.765	-2.3268
76	0.780	-2.1581
77	0.793	-2.0145
78	0.812	-1.8089
79	0.831	-1.6080
80	0.850	-1.4116
81	0.870	-1.2096
82	0.890	-1.0122
83	0.911	-0.8096
84	0.932	-0.6117
85	0.954	-0.4090
86	0.976	-0.2110
87	0.999	-0.0087
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 11:
Directional Antenna Values

93	1.000	0.0000
94	1.000	0.0000
95	1.000	0.0000
96	0.999	-0.0087
97	0.976	-0.2110
98	0.954	-0.4090
99	0.932	-0.6117
100	0.911	-0.8096
101	0.890	-1.0122
102	0.870	-1.2096
103	0.850	-1.4116
104	0.831	-1.6080
105	0.812	-1.8089
106	0.794	-2.0036
107	0.783	-2.1248
108	0.776	-2.2028
109	0.770	-2.2702
110	0.766	-2.3154
111	0.766	-2.3154
112	0.778	-2.1804
113	0.794	-2.0036
114	0.812	-1.8089
115	0.831	-1.6080
116	0.850	-1.4116
117	0.870	-1.2096
118	0.890	-1.0122
119	0.911	-0.8096
120	0.932	-0.6117
121	0.954	-0.4090
122	0.976	-0.2110
123	0.999	-0.0087
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 11:
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

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FIGURE 11:
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

KTOY (FM)
CH 284 A
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FIGURE 11:
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

KTOY (FM)
CH 284 A
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FIGURE 11:
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

KTOY (FM)
CH 284 A
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FIGURE 11:
Directional Antenna Values

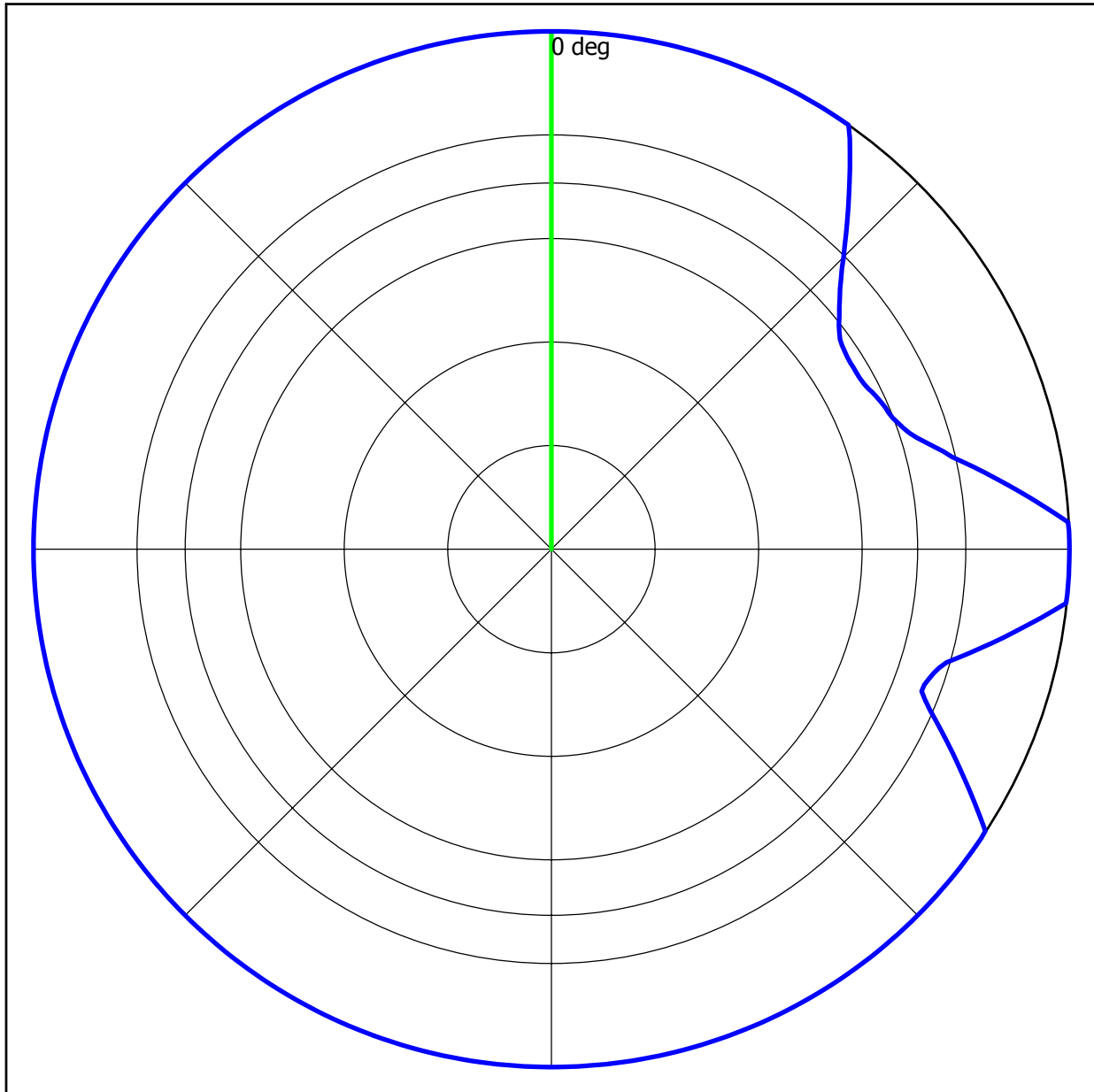
328	1.000	0.0000
329	1.000	0.0000
330	1.000	0.0000
331	1.000	0.0000
332	1.000	0.0000
333	1.000	0.0000
334	1.000	0.0000
335	1.000	0.0000
336	1.000	0.0000
337	1.000	0.0000
338	1.000	0.0000
339	1.000	0.0000
340	1.000	0.0000
341	1.000	0.0000
342	1.000	0.0000
343	1.000	0.0000
344	1.000	0.0000
345	1.000	0.0000
346	1.000	0.0000
347	1.000	0.0000
348	1.000	0.0000
349	1.000	0.0000
350	1.000	0.0000
351	1.000	0.0000
352	1.000	0.0000
353	1.000	0.0000
354	1.000	0.0000
355	1.000	0.0000
356	1.000	0.0000
357	1.000	0.0000
358	1.000	0.0000
359	1.000	0.0000

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FIGURE 12

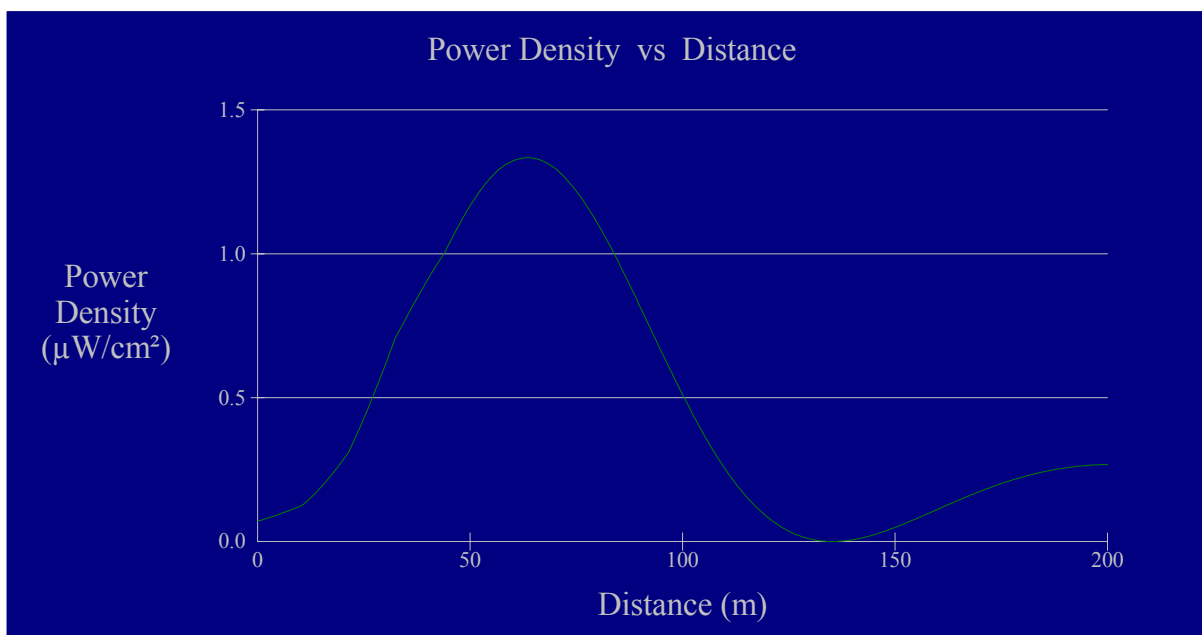
Antenna Pattern



Degrees	Field	Degrees	Field	Degrees	Field	Degrees	Field
000	1.000	090	1.000	180	1.000	270	1.000
010	1.000	100	0.911	190	1.000	280	1.000
020	1.000	110	0.766	200	1.000	290	1.000
030	1.000	120	0.932	210	1.000	300	1.000
040	0.894	130	1.000	220	1.000	310	1.000
050	0.726	140	1.000	230	1.000	320	1.000
060	0.680	150	1.000	240	1.000	330	1.000
070	0.712	160	1.000	250	1.000	340	1.000
080	0.850	170	1.000	260	1.000	350	1.000

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FIGURE 13-A



KTOY (FM)
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FIGURE 13-B

