

KTCL(FM) Facility ID No: 68684
 Jacor Broadcasting of Colorado, Inc.
 Comprehensive Engineering Exhibit
 July 19, 2004

This instant application is being filed in compliance with Report and Order in MB Docket No. 03-57, RM-10565, adopted March 17, 2004, to comply with section 8(a) of that order. In that Report and Order, the Audio Division modified the KTCL(FM) license to specify operation on Channel 227CO at Wheat Ridge, Colorado, in lieu of Channel 227C at Fort Collins, Colorado, subject to, inter alia, the filing of a construction permit application specifying the new facility. This application is a one-step class change request from C0 to C1.

It is proposed that KTCL(FM) be located upon a tower known by Antenna Structure Registration Number: 1033691 at 49 meters above ground level in a shared antenna with stations KRFX, KBPI (Aux), and KFMD each of which have pending construction permit applications for operation from the proposed shared antenna.

Spacing Study as C1

The site is fully spaced 73.207 as demonstrated in Figure 1.

Figure 1.

ComStudy 2.2 search of channel 227 (93.3 MHz Class C1) at 39-43-59.0 N, 105-14-10.0 W.										
Callsign	State	City	Chnl	ERP_w	Class	Status	Dist_km	Sep	Clr	Notes
	CO	WHEAT RIDGE	227	0	C0	APP	11.68	259	-247.3	This Allocation
	CO	FORT COLLINS	227	0	C	APP	49.48	270	-220.5	This Allocation
KTCL	CO	FORT COLLINS	227	100000	C	LIC	49.48	270	-220.5	This Allocation
KTCL	CO	FORT COLLINS	227	0	C	USE	90.68	270	-179.3	This Allocation
DKRMH	CO	LEADVILLE	228	3000	A	LIC	106.16	133	-26.8	Deleted
	CO	WESTCLIFFE	227	0	A	APP	185.96	200	-14	Deleted per RM10565
	CO	WESTCLIFFE	227	0	A	APP	185.96	200	-14	Deleted per RM10565
KYSL	CO	FRISCO	230	560	A	LIC	77.93	75	2.9	
KYSL	CO	FRISCO	230	0	A	USE	77.93	75	2.9	
KSPZ	CO	COLORADO SPRINGS	225	0	C	USE	114.32	105	9.3	
KSPZ	CO	COLORADO SPRINGS	225	60000	C	LIC	114.3	105	9.3	
KSPZ	CO	COLORADO SPRINGS	225	1100	C	LIC	114.3	105	9.3	
	CO	ASPEN	228	0	A	APP	148.92	133	15.9	

Height Above Average Terrain Calculation

This location is known as “Lookout Mountain Transmitter Site” and is located on the edge of the Rocky Mountains overlooking Wheat Ridge to the East of the site. For this site, the four cardinal radials that fall over the Rocky Mountains have been removed from the Height Above Average Terrain (HAAT) calculation. The Commission has long accepted the exclusion of such radials from the HAAT calculation for stations in the Denver, Colorado area. This practice is observed to prevent a “skew” of the calculations by the unusual terrain of the area. The proposed site is the presently licensed KMFD(FM) transmitter site which was licensed utilizing this method. To the extent necessary, the applicant requests a waiver of Section 73.313(d) of the Commission’s Rules to permit the exclusion from HAAT of the four radials extending over the Rocky Mountains. Figure 2 below is a tabulation of the HAAT calculations.

Figure 2

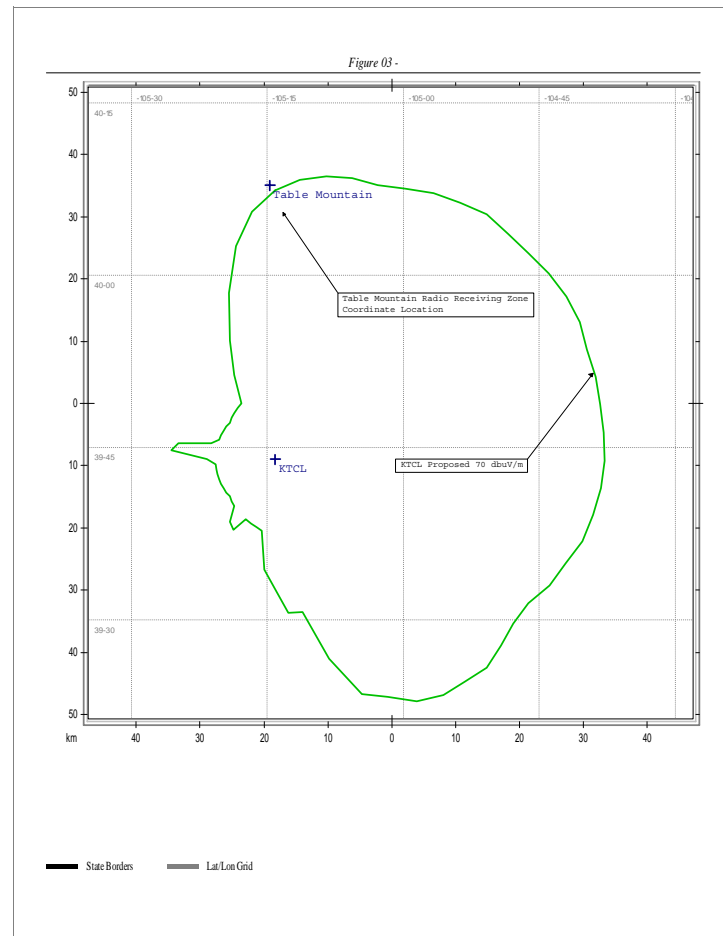
Azimuth	Average Terrain in Meters	In or Out of Calculation
0	1848.5	Included
45	1715.1	Included
90	1713.4	Included
135	1799.7	Included
180	2172.0	Excluded
225	2270.0	Excluded
270	2215.1	Excluded
315	2405.2	Excluded
	Average	1769.2
	RC-AMSL	2256.0
	HAAT	486.8

Directional Antenna and Table Mountain Radio Receiving Zone

As the proposed site is located near the Table Mountain Radio Receiving Zone (TMRRZ), a directional antenna is proposed for the site to limit emissions over TMRRZ as well as limiting the field that potentially would reflect from the Rocky Mountains and degrade the signal to listeners. This directional antenna is NOT required for contour protection as pursuant to Commission rules and is not subject to Section 73.316.

As shown in Figure 3, the expected field in the vicinity of TMRRZ is 70 dBu/m, which is 10 db lower than the 80 dBu/m limitation of Section 1.924.

Figure 3



Blanketing

The 115 dBu/m is calculated to extend over a populated area. When the height of the antenna above the ground and element directivity is considered, very few adverse effects are expected. The applicant is responsible as prescribed in Section 73.318.