

KCJK(FM) Minor Modification Application

This technical report is submitted in support of an increase in ERP to the KCJK(FM) 286C1 license at Garden City, MO, FCC file no. BLH-20010620AAM, in accordance with CFR §73.1690(c)(7),

The following exhibits are provided for the form 302 application:

- E-1 KCJK(FM) Spacing Study
- E-2 03 Second USGS Terrain HAAT Calculation

KCJK(FM) Modification Analysis:

KCJK(FM) is a fully spaced 73.207 class facility. A spacing study in exhibit E-1 shows that the only short spacing was created by §73.215 KXEA(FM) 285A facility at Lowry City, MO, FCC facility I.D. 170999.

The only modification to the KCJK(FM) facility is an increase in ERP to 72 kW. Using the USGS 03 second terrain data, the HAAT using thirty-six radials is calculated to be 346 meters (exhibit E-2). Using the V-Soft CONTOUR program, the distance to the 60 dBu contour is calculated to be 72.45 km, which is the maximum allowed for an equivalent class C1 facility.

RF Exposure Calculation:

The RF was calculated using the Commission's FMMODEL program, and is $0.164 \mu\text{W}/\text{cm}^2$ at a distance of 1083 meters from the base of the tower, which is well

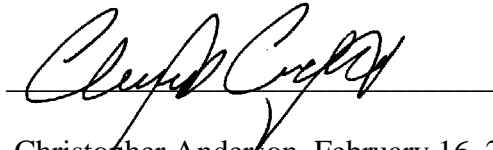
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below 5% of the $200 \mu\text{W}/\text{cm}^2$ permissible for general public exposure requiring consideration.

Conclusion:

Following the rules provided in CFR §73.1690(c)(7), it is concluded the minor modification to the KCJK(FM) license is in full compliance with the Commission rules and policies.

A handwritten signature in black ink, appearing to read 'Christopher Anderson', is written over a horizontal line.

Christopher Anderson February 16, 2012
andersce@bham.rr.com

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E-1 KCJK(FM) Spacing Study

REFERENCE

39 05 26.0 N.

CLASS = C1

DISPLAY DATES

DATA 02-15-12

94 28 18.0 W.

Current Spacings to 3rd Adj.

SEARCH 02-15-12

----- Channel 286 - 105.1 MHz -----

Call	Channel	Location		Azi	Dist	FCC	Margin
KCJK	LIC	286C1	Garden City	MO	0.0	0.0	244.5 -244.5
KXEA	LIC-N	285A	Lowry City	MO	145.8	125.8	132.5 -6.7(1)
KKJO-FM	LIC	288C1	St. Joseph	MO	324.7	84.5	81.5 3.0
WGEM-FM	LIC	286B	Quincy	IL	69.4	286.4	269.5 16.9
KXXK	LIC-N	289C2	Knob Noster	MO	111.8	97.9	78.5 19.4
KOMG	LIC	286C2	Willard	MO	159.6	245.0	223.5 21.5
KFFX	LIC	285A	Emporia	KS	242.6	167.6	132.5 35.1
KRES	LIC	284C	Moberly	MO	74.4	158.1	104.5 53.6
KVCY	LIC	284C3	Fort Scott	KS	189.3	136.3	75.5 60.8
KESM-FM	LIC	288A	El Dorado Springs	MO	163.6	141.8	74.5 67.4
KMOQ	LIC-N	287C3	Columbus	KS	185.4	219.0	143.5 75.5
KEDB	LIC-N	287C2	Chariton	IA	31.2	234.9	157.5 77.4
WIBW-FM	CP	233C0	Topeka	KS	267.2	125.3	36.5 88.8
KXBZ	LIC-Z	284C2	Manhattan	KS	277.1	173.5	78.5 95.0
KZNN	LIC	287C1	Rolla	MO	118.8	273.3	176.5 96.8

(1) KXEA(FM) 285A is a 73.215 short-spaced facility with respect to KCJK(FM).

E-2 KCJK(FM) HAAT Calculation

N. Lat. = 390526.0 W. Lng. = 942818.0
HAAT and Distance to Contour,
3-16 km, 51 pts Method - USGS 03 SEC

Azi.	AV EL	HAAT	dBk	60-F5
000	233.8	376.2	18.57	74.63
010	229.8	380.2	18.57	74.92
020	230.9	379.1	18.57	74.84
030	226.3	383.7	18.57	75.17
040	254.3	355.7	18.57	73.15
050	256.9	353.1	18.57	72.96
060	273.6	336.4	18.57	71.75
070	283.5	326.5	18.57	71.03
080	274.4	335.6	18.57	71.69
090	265.5	344.5	18.57	72.34
100	277.4	332.6	18.57	71.48
110	274.0	336.0	18.57	71.72
120	276.7	333.3	18.57	71.53
130	278.7	331.3	18.57	71.38
140	280.5	329.5	18.57	71.25
150	288.6	321.4	18.57	70.66
160	286.9	323.1	18.57	70.78
170	294.0	316.0	18.57	70.25
180	292.0	318.0	18.57	70.40
190	293.1	316.9	18.57	70.32
200	268.3	341.7	18.57	72.14
210	253.4	356.6	18.57	73.22
220	266.2	343.8	18.57	72.29
230	274.8	335.2	18.57	71.66
240	268.1	341.9	18.57	72.15
250	291.2	318.8	18.57	70.46
260	277.9	332.1	18.57	71.44
270	252.4	357.6	18.57	73.29
280	261.7	348.3	18.57	72.62
290	250.3	359.7	18.57	73.44
300	232.3	377.7	18.57	74.74
310	244.2	365.8	18.57	73.88
320	249.2	360.8	18.57	73.52
330	251.1	358.9	18.57	73.38
340	252.0	358.0	18.57	73.31
350	245.7	364.3	18.57	73.77

Ave El= 264.16 M HAAT= 345.84 M AMSL= 610 M