

Minor Change Expanded Technical Facility Application

This application is filed in response to the Media Bureau temporarily lifting the freeze imposed on April 5, 2013 on the filing and processing of minor modification applications that would increase a full power television station's noise-limited contour or a Class A station's protected contour in one or more directions beyond the station's authorized facilities.¹ The instant proposal, a minor change under the Commission's rules, expands the present technical facility of a television station that was not assigned a new channel in connection with the incentive auction repack process.

Post-Transition DTV Allocation Considerations

A study was performed using the FCC's software program, *tvstudy*, v.2.2.4, to ensure that the technical facility proposed herein protects the facilities proposed in the first and second priority filing window, whether those stations' applications have been granted or remain pending while protecting the construction permit facilities of reassigned stations and band changing stations filed in the initial 90-day filing window, whether those stations' applications have been granted or remain pending. Further, the instant proposal protects the facilities specified in applications filed before the April 2013 freeze with "cut-off" protection.

As demonstrated in the attached study results, the instant proposal is predicted to cause no new interference exceeding 0.5% to the populations served by any of the

¹ See *Media Bureau Temporarily Lifts the Freeze On The Filing Of Minor Modification Applications That Expand The Contour Of Full Power And Class A Television Stations*, Public Notice, DA 17-1086, Released November 6, 2017.

relevant protections discussed above. Accordingly, the instant proposal satisfies all applicable DTV interference criteria.

International DTV Considerations

As shown in the attached study, the transmitter site specified herein not within 320 kilometers of either the common border between the United States of America and Canada or between the USA and Mexico. Therefore, international notification and coordination of the instant proposal is not required.

tvstudy v2.2.4 (Z2Qqz3)
Database: localhost, Study: KRCG 12 OMNI 125K 171125, Model: Longley-Rice
Start: 2017.11.25 10:21:57

Study created: 2017.11.25 10:21:57

Study build station data: LMS TV 2017-11-22 (39)

Proposal: KRCG D12 DT APP JEFFERSON CITY, MO
File number: KRCG 12 OMNI 125K 171125
Facility ID: 41110
Station data: User record
Record ID: 2479
Country: U.S.
Zone: II

Search options:
Non-U.S. records included
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KTHV	D12	DT	LIC	LITTLE ROCK, AR	BLCDT20041029AIX	434.1 km
Yes	KIIN	D12	DT	LIC	IOWA CITY, IA	BLEDT20091229ABP	342.7
No	WEHT	D12	DT	CP	EVANSVILLE, IN	BLANK0000028458	405.6
Yes	KSQA	D12	DT	LIC	TOPEKA, KS	BLCDT20110919ABN	312.3
No	KUON-TV	D12	DT	LIC	LINCOLN, NE	BLEDT20090406AIP	460.5
No	KGEB	D12	DT	CP	TULSA, OK	BLANK0000029672	450.2
No	WPXS	D13	DT	CP	MOUNT VERNON, IL	BLANK0000029698	195.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D12
Latitude: 38 41 30.00 N (NAD83)
Longitude: 92 5 45.00 W
Height AMSL: 530.3 m
HAAT: 307.8 m
Peak ERP: 125 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 0.75

36.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	125 kW	274.0 m	111.7 km
45.0	125	293.3	113.2
90.0	125	319.3	115.4
135.0	125	338.7	117.0
180.0	125	325.6	115.9
225.0	125	323.4	115.7
270.0	125	314.8	115.0
315.0	125	292.2	113.1

Database HAAT does not agree with computed HAAT
Database HAAT: 308 m Computed HAAT: 310 m

Distance to Canadian border: 842.2 km

Distance to Mexican border: 1307.8 km

Conditions at FCC monitoring station: Grand Island NE
Bearing: 296.6 degrees Distance: 594.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 282.1 degrees Distance: 1137.6 km

Study cell size: 2.00 km
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Interference to BLEDT20091229ABP LIC scenario 1
**IX: 0.52% interference caused

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KIIN	D12	DT	LIC	IOWA CITY, IA	BLEDT20091229ABP	
Undesireds:	KRCG	D12	DT	BL	JEFFERSON CITY, MO	DTVBL41110	342.7 km
	KRCG	D12	DT	APP	JEFFERSON CITY, MO	KRCG 12 OMNI 125K 1711	342.7
	KDIN-TV	D11	DT	LIC	DES MOINES, IA	BLEDT20090612AIB	188.7
	WISC-TV	D11	DT	APP	MADISON, WI	BLANK0000029886	209.8
	WBBM-TV	D12	DT	LIC	CHICAGO, IL	BLCDT20090612ADR	307.6
	KEYC-TV	D12	DT	LIC	MANKATO, MN	BLCDT20120918AFE	351.0
	WLUK-TV	D12	DT	CP	GREEN BAY, WI	BLANK0000027369	404.0
	WHO-DT	D13	DT	LIC	DES MOINES, IA	BLCDT20090410ASQ	188.7
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
44168.2	1,365,215	42782.6	1,335,707	42457.8	1,329,588	42150.2 1,322,730	0.72 0.52

Undesired	Total IX	Unique IX, before	Unique IX, after
KRCG D12 DT BL	63.8 187	63.8 187	
KRCG D12 DT APP	371.4 7,045		371.4 7,045
KDIN-TV D11 DT LIC	4.0 49	0.0 0	0.0 0
WBBM-TV D12 DT LIC	72.2 501	68.2 454	68.2 454
KEYC-TV D12 DT LIC	112.2 2,538	112.2 2,538	112.2 2,538
WLUK-TV D12 DT CP	16.1 358	12.1 311	12.1 311
WHO-DT D13 DT LIC	64.5 2,582	60.4 2,533	60.4 2,533

Interference to BLCDT20110919ABN LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KSQA	D12	DT	LIC	TOPEKA, KS	BLCDT20110919ABN	
Undesireds:	KRCG	D12	DT	BL	JEFFERSON CITY, MO	DTVBL41110	312.3 km
	KRCG	D12	DT	APP	JEFFERSON CITY, MO	KRCG 12 OMNI 125K 1711	312.3
	KTWU	D11	DT	LIC	TOPEKA, KS	BLEDT20090917AAW	7.8
	KSCW-DT	D12	DT	LIC	WICHITA, KS	BLCDT20110203ACC	212.1
	KUON-TV	D12	DT	LIC	LINCOLN, NE	BLEDT20090406AIP	241.5
	KGEB	D12	DT	CP	TULSA, OK	BLANK0000029672	335.0
	WIBW-TV	D13	DT	LIC	TOPEKA, KS	BLCDT20110111ABO	32.6
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
10899.4	382,328	10336.7	374,290	6496.9	309,437	6488.9 309,344	0.12 0.03

Undesired	Total IX	Unique IX, before	Unique IX, after
KRCG D12 DT BL	20.0 11,744	0.0 0	
KRCG D12 DT APP	235.9 14,526		8.0 93
KTWU D11 DT LIC	3193.3 49,091	1101.2 22,271	1101.2 22,271
KSCW-DT D12 DT LIC	1121.4 26,395	219.2 4,412	199.3 4,314
KUON-TV D12 DT LIC	710.0 17,262	23.9 94	23.9 94
KGEB D12 DT CP	20.1 95	0.0 0	0.0 0
WIBW-TV D13 DT LIC	2048.9 21,050	275.7 1,392	275.7 1,392

Interference to proposal scenario 1
0.58% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KRCG	D12	DT	APP	JEFFERSON CITY, MO	KRCG 12 OMNI 125K 1711	

Undesireds: KIIN D12 DT LIC IOWA CITY, IA BLEDT20091229ABP 342.7 km

Service area	Terrain-limited	IX-free	Percent IX
41265.5 964,119	39496.3 933,006	39103.8 927,611	0.99 0.58

Undesired	Total IX	Unique IX	Prcnt Unique IX
KIIN D12 DT LIC	392.6 5,395	392.6 5,395	0.99 0.58