

**Note:**  
**Study cell size: 1.0 km**  
**Profile point spacing: 0.10 km**

tvstudy v2.2.5 (4uoc83)  
Database: 192.168.0.58, Study: KEFN\_Ch20\_Panel270\_3.2kW\_S1\_H2, Model: Longley-Rice  
Start: 2021.03.11 10:40:54

Study created: 2021.03.11 10:40:54

Study build station data: LMS TV 2021-03-11

Proposal: KEFN-CD D20 DC APP ST. LOUIS, MO  
File number: KEFN\_Ch20\_Panel270\_3.2kW\_S1\_H2  
Facility ID: 9375  
Station data: User record  
Record ID: 662  
Country: U.S.

Build options:  
Protect pre-transition records not on baseline channel  
Protect LPTV records from Class A

Search options:  
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	W19EE-D	D19	LD	CP	JACKSONVILLE, IL	BLANK0000013745	128.5 km
No	WPSD-TV	D19	DT	LIC	PADUCAH, KY	BLANK0000116960	191.8
Yes	KPTN-LD	D19	LD	LIC	ST. LOUIS, MO	BLANK0000124668	13.3
No	KTEJ	D20	DT	LIC	JONESBORO, AR	BLDTE20110818AAQ	307.3
No	K20KF-D	D20	LD	LIC	DAVENPORT, IA	BLDTE20120821AAP	337.8
No	WWME-CD	D20	DC	LIC	CHICAGO, IL	BLANK0000086882	421.1
Yes	WAND	D20	DT	LIC	DECATUR, IL	BLANK0000115806	187.8
No	W20ED-D	D20	LD	CP	DECATUR, IL	BLDTE20130322AII	166.9
No	WTSN-CD	D20	DC	LIC	EVANSVILLE, IN	BLDTE20120328AJA	264.6
No	WSWY-LD	D20-	LD	LIC	Indianapolis, IN	BLANK0000117690	293.4
No	WSWY-LD	D20-	LD	CP	Indianapolis, IN	BLANK0000135708	331.3
No	WKUT-LD	D20	LD	LIC	BOWLING GREEN, KY	BLANK0000088311	367.2
Yes	KNLJ	D20	DT	LIC	JEFFERSON CITY, MO	BLDTE20110121ACA	165.0
No	WHJK-LD	D20	LD	CP	JACKSON, TN	BLDTE20111007ADX	349.4
No	WZTV	D20	DT	LIC	NASHVILLE, TN	BLANK0000115725	398.7
No	W21ED-D	D21	LD	CP	MOUNT VERNON, IL	BLANK0000071888	128.0
No	WEAE-LD	D21	LD	CP	SPRINGFIELD, IL	BLANK0000071904	137.5
No	K21OU-D	D21	LD	CP	CAPE GIRARDEAU, MO	BLANK0000071878	151.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D20  
Mask: Full Service  
Latitude: 38 37 48.00 N (NAD83)  
Longitude: 90 11 26.00 W  
Height AMSL: 305.0 m  
HAAT: 0.0 m  
Peak ERP: 3.20 kW  
Antenna: ATC BPE2C1-U 270.0 deg  
Elev Pattn: Generic  
Elec Tilt: 1.00

49.4 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.000 kW	175.6 m	2.1 km
45.0	0.005	180.7	12.0
90.0	0.002	172.1	8.8
135.0	0.000	167.0	7.2
180.0	0.010	158.3	13.3
225.0	0.901	156.2	34.6

270.0	3.20	147.9	40.6
315.0	0.980	137.6	33.9

Database HAAT does not agree with computed HAAT  
Database HAAT: 0 m    Computed HAAT: 162 m

Distance to Canadian border: 702.6 km

Distance to Mexican border: 1423.2 km

Conditions at FCC monitoring station: Allegan MI  
Bearing: 37.6 degrees    Distance: 568.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 282.0 degrees    Distance: 1300.8 km

No land mobile station failures found

Study cell size: 1.00 km  
Profile point spacing: 0.10 km

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

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Interference to BLANK0000124668 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KPTN-LD	D19	LD	LIC	ST. LOUIS, MO	BLANK0000124668	
Undesireds:	KEFN-CD	D20	DC	BL	ST. LOUIS, MO	DTVBL9375	19.8 km
	KEFN-CD	D20	DC	APP	ST. LOUIS, MO	KEFN_Ch20_Panel270_3.2	13.3
	WSEC	D18	DT	LIC	JACKSONVILLE, IL	BLANK0000117568	116.8
	KDKZ-LD	D18	LD	LIC	FARMINGTON, MO	BLANK0000029554	88.7
	WPSD-TV	D19	DT	LIC	PADUCAH, KY	BLANK0000116960	193.7
	KYTV	D19	DT	LIC	SPRINGFIELD, MO	BLANK0000073156	277.3

	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
	6325.1	2,314,275	6126.2	2,301,201	5892.5	2,278,518	5953.8	2,288,267	-1.04    -0.43

Undesired		Total IX	Unique IX, before	Unique IX, after
KEFN-CD D20 DC BL	81.4	11,481	61.3	9,749
KEFN-CD D20 DC APP	0.0	0		0.0    0
KDKZ-LD D18 LD LIC	15.1	1,783	1.0	66    6.0    734
WPSD-TV D19 DT LIC	161.4	10,648	142.3	9,521    149.4    9,961
KYTV D19 DT LIC	10.0	1,778	3.0	807    4.0    970

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Interference to BLANK0000115806 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WAND	D20	DT	LIC	DECATUR, IL	BLANK0000115806	
Undesireds:	KEFN-CD	D20	DC	BL	ST. LOUIS, MO	DTVBL9375	219.4 km
	KEFN-CD	D20	DC	APP	ST. LOUIS, MO	KEFN_Ch20_Panel270_3.2	187.8
	WWME-CD	D20	DC	LIC	CHICAGO, IL	BLANK0000086882	236.5
	WTSN-CD	D20	DC	LIC	EVANSVILLE, IN	BLDTL20120328AJA	256.8
	WFFT-TV	D20	DT	LIC	FORT WAYNE, IN	BLANK0000086952	333.1
	KNLJ	D20	DT	LIC	JEFFERSON CITY, MO	BLCDT20110121ACA	312.5
	WLWT	D20	DT	LIC	CINCINNATI, OH	BLANK0000087261	380.8
	WHA-TV	D20	DT	LIC	MADISON, WI	BLANK0000089074	349.9

	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
	37414.9	1,388,405	37338.2	1,383,610	37152.4	1,379,746	37156.3	1,379,815	-0.01    -0.01

Undesired		Total IX	Unique IX, before	Unique IX, after
KEFN-CD D20 DC BL	4.0	69	4.0	69
KEFN-CD D20 DC APP	0.0	0		0.0    0
WWME-CD D20 DC LIC	161.9	2,401	157.9	1,962    157.9    1,962
WTSN-CD D20 DC LIC	1.0	1	0.0	0    0.0    0

WFFT-TV D20 DT LIC	2.0	1	0.0	0	0.0	0
KNLJ D20 DT LIC	10.0	1,351	7.0	0	7.0	0
WLWT D20 DT LIC	5.0	12	3.0	11	3.0	11
WHA-TV D20 DT LIC	11.9	1,821	5.0	31	5.0	31

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Interference to BLANK0000115806 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WAND	D20	DT	LIC	DECATUR, IL	BLANK0000115806	
Undesireds:	KEFN-CD	D20	DC	BL	ST. LOUIS, MO	DTVBL9375	219.4 km
	KEFN-CD	D20	DC	APP	ST. LOUIS, MO	KEFN_Ch20_Panel270_3.2	187.8
	WWME-CD	D20	DC	LIC	CHICAGO, IL	BLANK0000086882	236.5
	WTSN-CD	D20	DC	LIC	EVANSVILLE, IN	BLDTL20120328AJA	256.8
	WFFT-TV	D20	DT	LIC	FORT WAYNE, IN	BLANK0000086952	333.1
	KNLJ	D20	DT	LIC	JEFFERSON CITY, MO	BLCDT20110121ACA	312.5
	WLWT	D20	DT	CP	CINCINNATI, OH	BLANK0000127507	380.8
	WHA-TV	D20	DT	LIC	MADISON, WI	BLANK0000089074	349.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
37414.9 1,388,405		37338.2 1,383,610		37152.4 1,379,746		37156.3 1,379,815	-0.01 -0.01

Undesired	Total IX	Unique IX, before	Unique IX, after
KEFN-CD D20 DC BL	4.0 69	4.0 69	
KEFN-CD D20 DC APP	0.0 0		0.0 0
WWME-CD D20 DC LIC	161.9 2,401	157.9 1,962	157.9 1,962
WTSN-CD D20 DC LIC	1.0 1	0.0 0	0.0 0
WFFT-TV D20 DT LIC	2.0 1	0.0 0	0.0 0
KNLJ D20 DT LIC	10.0 1,351	7.0 0	7.0 0
WLWT D20 DT CP	5.0 12	3.0 11	3.0 11
WHA-TV D20 DT LIC	11.9 1,821	5.0 31	5.0 31

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Interference to BLCDT20110121ACA LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KNLJ	D20	DT	LIC	JEFFERSON CITY, MO	BLCDT20110121ACA	
Undesireds:	KEFN-CD	D20	DC	BL	ST. LOUIS, MO	DTVBL9375	147.5 km
	KEFN-CD	D20	DC	APP	ST. LOUIS, MO	KEFN_Ch20_Panel270_3.2	165.0
	KYTV	D19	DT	LIC	SPRINGFIELD, MO	BLANK0000073156	185.8
	KTEJ	D20	DT	LIC	JONESBORO, AR	BLEDT20110818AAQ	332.4
	WAND	D20	DT	LIC	DECATUR, IL	BLANK0000115806	312.5
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
28648.7 655,482		28346.5 649,748		28268.3 648,228		28281.3 648,399	-0.05 -0.03

Undesired	Total IX	Unique IX, before	Unique IX, after
KEFN-CD D20 DC BL	21.0 250	17.0 210	
KEFN-CD D20 DC APP	6.0 53		4.0 39
KYTV D19 DT LIC	15.2 382	13.2 364	13.2 364
KTEJ D20 DT LIC	16.2 844	14.1 826	14.1 826
WAND D20 DT LIC	31.8 102	27.8 62	29.8 88

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Interference to proposal scenario 1  
0.79% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance		
	KEFN-CD	D20	DC	APP	ST. LOUIS, MO	KEFN_Ch20_Panel270_3.2			
Undesireds:	WAND	D20	DT	LIC	DECATUR, IL	BLANK0000115806	187.8 km		
Service area		Terrain-limited		IX-free		Percent IX			
1860.7 1,570,868		1828.7 1,568,103		1792.7 1,555,681		1.97 0.79			
Undesired	Total IX		Unique IX		Prct Unique IX				
WAND D20 DT LIC	36.0 12,422		36.0 12,422		1.97 0.79				