

INTERFERENCE ANALYSIS FOR PROPOSED KNPN-LD, SAINT JOSEPH, MO (CHANNEL 15)

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: knpn15p01, Model: Longley-Rice

Study build station data: LMS TV 2018-04-09

Proposal: KNPN15P01 D15 LD APP SAINT JOSEPH, MO
File number: knpn15p01
Facility ID: 188056
Station data: User record
Record ID: 2585
Country: U.S.

Build options:

Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K14PX-D	D14	LD	CP	PAXICO, KS	BNPDTL20100514AIA	137.5 km
Yes	K14PQ-D	D14	LD	CP	SAINT JOSEPH, MO	BNPDTL20100902ABK	46.6
No	KHOG-TV	D15	DT	LIC	FAYETTEVILLE, AR	BLCDT20020904AAX	420.3
No	KYOU-TV	D15	DT	LIC	OTTUMWA, IA	BLANK0000001581	292.1
No	WSEC	D15	DT	LIC	JACKSONVILLE, IL	BLEDT20031031ADN	410.4
No	WICS	D15	DT	CP	SPRINGFIELD, IL	BLANK0000034386	459.5
No	K15IJ-D	D15	LD	CP	PITTSBURG, KS	BNPDTL20100106AGE	261.9
No	K15CN	N15z	TX	LIC	SALINA, KS	BLTTL19880714IH	258.8
No	K15CN	D15	LD	CP	SALINA, KS	BMPDTL20121022AAF	210.3
No	KSNW	D15	DT	CP	WICHITA, KS	BLANK0000034801	319.3
No	K15DD-D	D15	LD	LIC	WICHITA, KS	BLDTL20110331AHX	313.4
No	KSMN	D15	DT	LIC	WORTHINGTON, MN	BLEDT20051219AGX	470.0
Yes	KMOS-TV	D15	DT	LIC	SEDALIA, MO	BLEDT20030108ABK	210.9
No	KSPR-LD	D15	LD	LIC	SPRINGFIELD, MO	BLDTL20150120AHZ	315.1
No	K38HD-D	D15	LD	APP	ST. LOUIS, MO	BLANK0000036804	416.0
No	K15JK-D	D15	LD	CP	BEATRICE / FAIRBURY, NE	BNPDTL20100201AAL	188.1
No	KIUA-LD	D15	LD	CP	LINCOLN, NE	BLANK0000014090	294.1
Yes	KFXL-TV	D15	DT	LIC	LINCOLN, NE	BLANK0000001045	198.1
Yes	KFXL-TV	D15	DT	APP	LINCOLN, NE	BLANK0000035803	185.6
No	KDSM-TV	D16	DT	LIC	DES MOINES, IA	BLCDT20110609ABE	253.1
Yes	KTKA-TV	D16	DT	CP	TOPEKA, KS	BLANK0000034844	122.6
No	KAJF-LD	D16	LD	LIC	Kansas City, MO	BLANK0000007777	86.5
No	KNPG-LD	D16	LD	LIC	SAINT JOSEPH, MO	BLDTL20130307ABQ	0.0

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D15

Mask: Full Service

Latitude: 39 45 0.00 N (NAD83)

Longitude: 94 50 26.00 W

Height AMSL: 354.0 m

HAAT: 0.0 m

Peak ERP: 15.0 kW

Antenna: Omnidirectional

Elev Pattn: Generic

Elec Tilt: 0.75

48.8 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	15.0 kW	59.3 m	39.2 km
45.0	15.0	72.9	41.4
90.0	15.0	78.8	42.3
135.0	15.0	64.7	40.1
180.0	15.0	31.9	32.0
225.0	15.0	108.8	46.2
270.0	15.0	82.4	42.9
315.0	15.0	88.6	43.8

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 73 m

Distance to Canadian border: 958.2 km

Distance to Mexican border: 1259.7 km

Conditions at FCC monitoring station: Grand Island NE

Bearing: 294.4 degrees Distance: 330.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 276.2 degrees Distance: 885.5 km

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No land mobile station failures found

Proposal is not within the Offshore Radio Service protected area

Study cell size: 1.00 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 BNPDTL20100902ABK CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	K14PQ-D	D14	LD	CP	SAINT JOSEPH, MO	BNPDTL20100902ABK	
Undesireds:	KNPN15P01	D15	LD	APP	SAINT JOSEPH, MO	knnp15p01	46.6 km
	KTIV	D14	DT	CP	SIOUX CITY, IA	BLANK0000034419	292.6
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
6491.4		57,460		6434.2		6406.9	0.42
		6450.2		56,380		56,102	0.49
Undesired		Total IX		Unique IX, before		Unique IX, after	
KNPN15P01 D15 LD APP		27.2		274		27.2	274
KTIV D14 DT CP		16.0		4		16.0	4

----- Interference to BLEDT20030108ABK LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KMOS-TV	D15	DT	LIC	SEDALIA, MO	BLEDT20030108ABK	
Undesireds:	KNPN15P01	D15	LD	APP	SAINT JOSEPH, MO	knnp15p01	210.9 km
	KNLC	D14	DT	APP	ST. LOUIS, MO	BLANK0000035663	203.9
	KHOG-TV	D15	DT	LIC	FAYETTEVILLE, AR	BLCDT20020904AAX	309.4
	KYOU-TV	D15	DT	LIC	OTTUMWA, IA	BLANK0000001581	295.9
	W15BU-D	D15	DC	CP	JOHNSON CITY, IL	BLANK0000035857	354.6
	WICS	D15	DT	CP	SPRINGFIELD, IL	BLANK0000034386	321.2
	KFXL-TV	D15	DT	LIC	LINCOLN, NE	BLANK0000001045	408.9
	KOZK	D16	DT	CP	SPRINGFIELD, MO	BLANK0000034615	162.1
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
41439.4		807,062		40794.3		40743.5	0.12
		41117.8		804,422		800,316	0.10
Undesired		Total IX		Unique IX, before		Unique IX, after	
KNPN15P01 D15 LD APP		57.7		803		50.7	791
KHOG-TV D15 DT LIC		40.5		339		26.3	261
KYOU-TV D15 DT LIC		23.8		53		7.9	8
WICS D15 DT CP		113.0		521		104.1	488
KOZK D16 DT CP		169.3		2,513		155.1	2,435

----- Interference to BLANK0000001045 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KFXL-TV	D15	DT	LIC	LINCOLN, NE	BLANK0000001045	
Undesireds:	KNPN15P01	D15	LD	APP	SAINT JOSEPH, MO	knnp15p01	198.1 km
	KSNW	D15	DT	CP	WICHITA, KS	BLANK0000034801	349.7
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
8908.9		361,595		8837.9		8821.9	0.18
		8861.8		361,334		361,259	0.01
Undesired		Total IX		Unique IX, before		Unique IX, after	
KNPN15P01 D15 LD APP		17.0		32		16.0	32
KSNW D15 DT CP		24.0		43		23.0	43

----- Interference to BLANK0000035803 APP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KFXL-TV	D15	DT	APP	LINCOLN, NE	BLANK0000035803	
Undesireds:	KNPN15P01	D15	LD	APP	SAINT JOSEPH, MO	knnp15p01	185.6 km
	KSNW	D15	DT	CP	WICHITA, KS	BLANK0000034801	337.3
	KSMN	D15	DT	LIC	WORTHINGTON, MN	BLEDT20051219AGX	356.6
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
20016.4		975,624		19913.0		19897.0	0.08
		19933.1		972,047		971,056	0.08

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Undesired		Total IX	Unique IX, before	Unique IX, after
KNPN15P01 D15 LD APP	18.0	822		16.0 822
KSNW D15 DT CP	13.0	13	13.0 13	11.0 13
KSMN D15 DT LIC	7.0	156	7.0 156	7.0 156

Interference to BLANK0000034844 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KTKA-TV	D16	DT	CP	TOPEKA, KS	BLANK0000034844	
Undesireds:	KNPN15P01	D15	LD	APP	SAINT JOSEPH, MO	knnp15p01	122.6 km
	KDSM-TV	D16	DT	LIC	DES MOINES, IA	BLCDT20110609ABE	367.5
	KOOD	D16	DT	LIC	HAYS, KS	BLEDT20030423ABE	245.6
	KOZK	D16	DT	CP	SPRINGFIELD, MO	BLANK0000034615	332.1
	KWHB	D16	DT	CP	TULSA, OK	BLANK0000034614	331.6
	KAAS-TV	D17	DT	APP	SALINA, KS	BLANK0000035657	127.2
Service area	24632.6	750,566	Terrain-limited	24457.9	739,628	IX-free, before	23780.8
						IX-free, after	730,001
						Percent New IX	0.01 0.00

Undesired		Total IX	Unique IX, before	Unique IX, after
KNPN15P01 D15 LD APP	5.9	174		2.0 21
KDSM-TV D16 DT LIC	40.6	3,120	35.6 1,942	31.7 1,789
KOOD D16 DT LIC	429.8	1,007	275.5 293	275.5 293
KOZK D16 DT CP	20.9	5,132	15.9 3,954	15.9 3,954
KAAS-TV D17 DT APP	343.2	2,239	188.9 1,525	188.9 1,525

Interference to proposal scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KNPN15P01	D15	LD	APP	SAINT JOSEPH, MO	knnp15p01	
Undesireds:	K14PQ-D	D14	LD	CP	SAINT JOSEPH, MO	BNPDTL20100902ABK	46.6 km
	K15CN	N15z	TX	LIC	SALINA, KS	BLTTL19880714IH	258.8
	KSNW	D15	DT	CP	WICHITA, KS	BLANK0000034801	319.3
	KMOS-TV	D15	DT	LIC	SEDALIA, MO	BLEDT20030108ABK	210.9
	KFXL-TV	D15	DT	LIC	LINCOLN, NE	BLANK0000001045	198.1
Service area	5345.2	144,874	Terrain-limited	5265.6	144,425	IX-free	Percent IX
						4985.6	142,253
						5.32	1.50

Undesired		Total IX	Unique IX	Prcnt Unique IX
K14PQ-D D14 LD CP	229.1	974	186.9 806	3.55 0.56
KSNW D15 DT CP	1.0	0	1.0 0	0.02 0.00
KMOS-TV D15 DT LIC	92.1	1,366	49.9 1,198	0.95 0.83

Interference to proposal scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KNPN15P01	D15	LD	APP	SAINT JOSEPH, MO	knnp15p01	
Undesireds:	K14PQ-D	D14	LD	CP	SAINT JOSEPH, MO	BNPDTL20100902ABK	46.6 km
	K15CN	N15z	TX	LIC	SALINA, KS	BLTTL19880714IH	258.8
	KSNW	D15	DT	CP	WICHITA, KS	BLANK0000034801	319.3
	KMOS-TV	D15	DT	LIC	SEDALIA, MO	BLEDT20030108ABK	210.9
	KFXL-TV	D15	DT	APP	LINCOLN, NE	BLANK0000035803	185.6
Service area	5345.2	144,874	Terrain-limited	5265.6	144,425	IX-free	Percent IX
						4964.7	141,656
						5.72	1.92

Undesired		Total IX	Unique IX	Prcnt Unique IX
K14PQ-D D14 LD CP	229.1	974	177.8 799	3.38 0.55
KSNW D15 DT CP	1.0	0	0.0 0	0.00 0.00
KMOS-TV D15 DT LIC	92.1	1,366	27.0 92	0.51 0.06
KFXL-TV D15 DT APP	72.9	1,744	20.9 597	0.40 0.41