

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

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: WEAE_Ch21_Omni_Hgt_Move_Pre, Model: Longley-Rice
Start: 2019.04.17 13:46:10

Study created: 2019.04.17 11:03:06

Study build station data: LMS TV 2019-04-16

Proposal: WEAE-LD D21 LD APP SPRINGFIELD, IL
File number: WEAE_Ch21_Omni_Hgt_Move
Facility ID: 181983
Station data: User record
Record ID: 782
Country: U.S.

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

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	WAND	D20	DT	CP	DECATUR, IL	BLANK0000034594	68.6 km
Yes	W20ED-D	D20	LD	CP	DECATUR, IL	BDCCDTT20130322AII	52.5
No	KNLJ	D20	DT	LIC	JEFFERSON CITY, MO	BLCDT20110121ACA	245.1
No	KEFN-CD	D20z	DC	LIC	ST. LOUIS, MO	BLANK0000054925	167.6
Yes	KGCW	D21	DT	CP	BURLINGTON, IA	BLANK0000028473	181.7
Yes	KGCW	D21	DT	APP	BURLINGTON, IA	BLANK0000034909	183.9
No	KMIK-LD	D21	LD	LIC	CEDAR FALLS, IA	BLANK0000004384	379.3
No	KAJR-LD	D21	LD	CP	FORT DODGE, IA	BLANK0000051611	378.4
Yes	WMEC	D21	DT	LIC	MACOMB, IL	BLEDT20031031ADO	117.9
Yes	WPXS	D21	DT	LIC	MOUNT VERNON, IL	BLCDT20081103AAG	121.5
No	WEEV-LD	D21	LD	LIC	EVANSVILLE, IN	BLANK0000066968	275.9
No	W21DJ-D	D21	LD	CP	FORT WAYNE, IN	BNPDTL20091228AAU	408.4
No	WJYS	D21	DT	CP	HAMMOND, IN	BLANK0000034920	286.0
No	WFYI	D21	DT	LIC	INDIANAPOLIS, IN	BLEDT20100803ADB	290.8
No	WRLW-CD	D21-	DC	CP	SALEM, IN	BLANK0000034328	330.2
No	WZPX-TV	D21	DT	APP	BATTLE CREEK, MI	BLANK0000068453	464.5
No	KTAJ-TV	D21	DT	LIC	ST. JOSEPH, MO	BLCDT20060703AAK	429.9
No	KEFN-CD	D21	DC	BL	ST. LOUIS, MO	DTVBL9375	167.6
No	WJKT	D21	DT	CP	JACKSON, TN	BLANK0000027712	445.7
No	WUXP-TV	D21	DT	LIC	NASHVILLE, TN	BLCDT20060414AAU	461.9
No	WIFS	D21	DT	CP	JANESVILLE, WI	BLANK0000064353	364.1
No	WMKE-CD	D21	DC	LIC	MILWAUKEE, WI	BLDTA20150126AAQ	394.8
No	WBUI	D22	DT	LIC	DECATUR, IL	BLCDT20091119ACF	68.1
No	WVDM-LD	D22	LD	CP	QUINCY, IL	BLANK0000052701	135.2
No	WTVW	D22	DT	CP	EVANSVILLE, IN	BLANK0000034881	275.2
No	WVUT	D22	DT	LIC	VINCENNES, IN	BLEDT20090709AFJ	222.1
No	KBSI	D22	DT	LIC	CAPE GIRARDEAU, MO	BLCDT20110608ABZ	263.9

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D21
Mask: Full Service
Latitude: 39 46 51.10 N (NAD83)
Longitude: 89 36 18.00 W
Height AMSL: 201.2 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: Omnidirectional
Elev Pattnr: Generic

49.5 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	15.0 kW	26.0 m	30.9 km
45.0	15.0	29.9	30.9
90.0	15.0	27.7	30.9
135.0	15.0	25.9	30.9
180.0	15.0	25.6	30.9
225.0	15.0	19.7	30.9
270.0	15.0	17.0	30.9
315.0	15.0	27.2	30.9

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 25 m

Distance to Canadian border: 596.3 km

Distance to Mexican border: 1545.7 km

Conditions at FCC monitoring station: Allegan MI

Bearing: 43.0 degrees Distance: 437.8 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 276.8 degrees Distance: 1329.6 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%

Interference to BDCCDTT20130322AII CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W20ED-D	D20	LD	CP	DECATUR, IL	BDCCDTT20130322AII	
Undesireds:	WEAE-LD	D21	LD	APP	SPRINGFIELD, IL	WEAE_Ch21_Omni_Hgt_Mov	52.5 km
	W19EE-D	D19	LD	CP	JACKSONVILLE, IL	BLANK0000013745	49.5
	WAND	D20	DT	CP	DECATUR, IL	BLANK0000034594	20.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
7219.7	215,701	7219.7	215,701	226.0	4,630	226.0 4,630	0.00 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
WEAE-LD	D21 LD APP	2.0	0			0.0 0	
W19EE-D	D19 LD CP	7.1	181	1.0	0	1.0 0	
WAND	D20 DT CP	6992.8	211,071	6986.7	210,890	6984.7 210,890	

Interference to BLANK0000028473 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KG CW	D21	DT	CP	BURLINGTON, IA	BLANK0000028473	
Undesireds:	WEAE-LD	D21	LD	APP	SPRINGFIELD, IL	WEAE_Ch21_Omni_Hgt_Mov	181.7 km
	WJYS	D21	DT	CP	HAMMOND, IN	BLANK0000034920	276.7
	KTAJ-TV	D21	DT	LIC	ST. JOSEPH, MO	BLCDT20060703AAK	393.0
	WIFS	D21	DT	CP	JANESVILLE, WI	BLANK0000064353	237.9
	KPXR-TV	D22	DT	LIC	CEDAR RAPIDS, IA	BLANK0000063428	156.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
28385.3	893,566	28305.4	893,255	28210.3	891,378	28131.5 888,452	0.28 0.33
Undesired		Total IX		Unique IX, before		Unique IX, after	
WEAE-LD	D21 LD APP	78.8	2,926			78.8 2,926	
WJYS	D21 DT CP	7.0	13	1.0	7	1.0 7	
KTAJ-TV	D21 DT LIC	2.0	0	2.0	0	2.0 0	
WIFS	D21 DT CP	68.1	1,111	60.1	1,103	60.1 1,103	

KPXR-TV D22 DT LIC 26.0 761 24.0 759 24.0 759

Interference to BLANK0000034909 APP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance		
Desired:	KGCW	D21	DT	APP	BURLINGTON, IA	BLANK0000034909			
Undesireds:	WEAE-LD	D21	LD	APP	SPRINGFIELD, IL	WEAE_Ch21_Omni_Hgt_Mov	183.9 km		
	WJYS	D21	DT	CP	HAMMOND, IN	BLANK0000034920	236.1		
	WIFS	D21	DT	CP	JANESVILLE, WI	BLANK0000064353	204.3		
	KPXR-TV	D22	DT	LIC	CEDAR RAPIDS, IA	BLANK0000063428	164.8		
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX		
27148.9		947,542		26978.2		940,290	0.27		
				26855.0		935,048	0.43		
						26782.2			
						931,027			
Undesired				Total IX	Unique IX, before	Unique IX, after			
WEAE-LD D21 LD APP				86.8	7,374	72.8	4,021		
WJYS D21 DT CP				32.1	3,526	14.1	791		
WIFS D21 DT CP				105.2	4,436	85.1	1,024		
KPXR-TV D22 DT LIC				3.0	16	1.0	10		

Interference to BLEDT20031031ADO LIC scenario 1

**IX: 0.94% interference caused

	Call	Chan	Svc	Status	City, State	File Number	Distance		
Desired:	WMEC	D21	DT	LIC	MACOMB, IL	BLEDT20031031ADO			
Undesireds:	WEAE-LD	D21	LD	APP	SPRINGFIELD, IL	WEAE_Ch21_Omni_Hgt_Mov	117.9 km		
	KTAJ-TV	D21	DT	LIC	ST. JOSEPH, MO	BLCDDT20060703AAK	357.7		
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX		
13378.0		217,607		13281.9		217,105	2.72		
				13269.9		217,011	0.94		
						12909.3			
						214,966			
Undesired				Total IX	Unique IX, before	Unique IX, after			
WEAE-LD D21 LD APP				367.6	2,045	360.6	2,045		
KTAJ-TV D21 DT LIC				12.0	94	5.0	94		

Interference to BLCDDT20081103AAG LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance		
Desired:	WPXS	D21	DT	LIC	MOUNT VERNON, IL	BLCDDT20081103AAG			
Undesireds:	WEAE-LD	D21	LD	APP	SPRINGFIELD, IL	WEAE_Ch21_Omni_Hgt_Mov	121.5 km		
	KEFN-CD	D20z	DC	LIC	ST. LOUIS, MO	BLANK0000054925	81.6		
	WMEC	D21	DT	LIC	MACOMB, IL	BLEDT20031031ADO	214.9		
	WUXP-TV	D21	DT	LIC	NASHVILLE, TN	BLCDDT20060414AAU	363.5		
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX		
8999.0		1,157,799		8989.9		1,155,439	0.04		
				8984.9		1,148,809	0.00		
						8980.9			
						1,148,797			
Undesired				Total IX	Unique IX, before	Unique IX, after			
WEAE-LD D21 LD APP				8.0	4,058	4.0	12		
KEFN-CD D20z DC LIC				2.0	5,015	1.0	2,584		
WMEC D21 DT LIC				2.0	671	0.0	0		
WUXP-TV D21 DT LIC				2.0	1,485	0.0	0		

Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WEAE-LD	D21	LD	APP	SPRINGFIELD, IL	WEAE_Ch21_Omni_Hgt_Mov	
Undesireds:	WAND	D20	DT	CP	DECATUR, IL	BLANK0000034594	68.6 km
	W20ED-D	D20	LD	CP	DECATUR, IL	BDCCDTT20130322AII	52.5
	KGCW	D21	DT	CP	BURLINGTON, IA	BLANK0000028473	181.7
	WBUI	D22	DT	LIC	DECATUR, IL	BLCDDT20091119ACF	68.1
Service area		Terrain-limited		IX-free		Percent IX	
2997.6		209,338		2996.6		208,895	1.38
				2955.3		208,771	0.06
Undesired				Total IX	Unique IX	Prcnt Unique IX	

WAND D20 DT CP	41.3	124	38.2	124	1.28	0.06
W20ED-D D20 LD CP	1.0	0	0.0	0	0.00	0.00
KGCW D21 DT CP	1.0	0	0.0	0	0.00	0.00
WBUI D22 DT LIC	3.0	0	0.0	0	0.00	0.00

Interference to proposal scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WEAE-LD	D21	LD	APP	SPRINGFIELD, IL	WEAE_Ch21_Omni_Hgt_Mov	
Undesireds:	WAND	D20	DT	CP	DECATUR, IL	BLANK0000034594	68.6 km
	W20ED-D	D20	LD	CP	DECATUR, IL	BDCCDTT20130322AII	52.5
	KGCW	D21	DT	APP	BURLINGTON, IA	BLANK0000034909	183.9
	WBUI	D22	DT	LIC	DECATUR, IL	BLCDT20091119ACF	68.1

	Service area		Terrain-limited		IX-free		Percent IX
	2997.6	209,338	2996.6	208,895	2955.3	208,771	1.38 0.06

Undesired			Total IX		Unique IX	Prcnt Unique IX	
WAND D20 DT CP	41.3	124	38.2	124	1.28	0.06	
W20ED-D D20 LD CP	1.0	0	0.0	0	0.00	0.00	
KGCW D21 DT APP	1.0	0	0.0	0	0.00	0.00	
WBUI D22 DT LIC	3.0	0	0.0	0	0.00	0.00	