

Amended DTV Allocation Study

Attached are the results of an updated *TVStudy* v.2.2.4 allocation study which demonstrates that the WRSP-TV proposal satisfies all applicable interference criteria. With the proposed antenna beam tilt of 1.0 degree (rather than the incorrect value of 0.8 degrees used in the original application) and a Profile Point Spacing of 0.2 km (rather than the default value of 1.0 km used in the original application), the application's proposed interference caused to WTVO-DT (FCC File No. BLCDT20021024AAS) is reduced to 0.42%.

Because the instant proposal causes no new interference exceeding 0.5% to the population served by any relevant protections, the application satisfies all applicable interference criteria with the *TVStudy* input parameters set as described above.

tvstudy vtvixstudy2.2.4 (Z2Qqz3)

Database: localhost, Study: WRSP 16 TVS 180315 2Xp2 Grid, Model: Longley-Rice  
Start: 2018.03.15 15:18:22

Study created: 2018.03.15 15:18:22

Study build station data: LMS TV 2018-03-14 (55)

Proposal: WRSP-TV D16 DT APP \*P SPRINGFIELD, IL  
File number: BLANK0000034422  
Facility ID: 62009  
Station data: LMS TV 2018-03-14 (55)  
Record ID: 25076f915f490f5f015f49bd578f023d  
Country: U.S.  
Zone: I

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	KYOU-TV	D15	DT	LIC	OTTUMWA, IA	BLANK0000001581	261.3 km
Yes	WICS	D15	DT	CP	SPRINGFIELD, IL	BLANK0000027418	0.0
No	WICS	D15	DT	APP	SPRINGFIELD, IL	BLANK0000034386	0.0
No	KDSM-TV	D16	DT	LIC	DES MOINES, IA	BLCDT20110609ABE	415.6
Yes	WTVO	D16	DT	LIC	ROCKFORD, IL	BLCDT20021024AAS	277.1
No	WDNI-CD	D16	DC	CP	INDIANAPOLIS, IN	BLANK0000034782	288.9
Yes	WBKI	D16	DT	CP	SALEM, IN	BLANK0000029887	351.0
No	KOZK	D16	DT	CP	SPRINGFIELD, MO	BLANK0000034615	421.2
No	KWQC-TV	D17	DT	CP	DAVENPORT, IA	BLANK0000033932	211.8
No	WYIN	D17	DT	LIC	GARY, IN	BLEDT20040206AAA	244.4
No	KETC	D17	DT	BL	ST. LOUIS, MO	DTVBL62182	167.7

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D16  
Latitude: 39 48 15.00 N (NAD83)  
Longitude: 89 27 40.00 W  
Height AMSL: 612.0 m  
HAAT: 436.0 m  
Peak ERP: 360 kW  
Antenna: Omnidirectional  
Elev Pattn: Generic  
Elec Tilt: 1.00

38.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	360 kW	430.7 m	103.4 km
45.0	360	430.8	103.4
90.0	360	432.5	103.6
135.0	360	432.8	103.6
180.0	360	438.2	104.1
225.0	360	441.2	104.3
270.0	360	438.8	104.1
315.0	360	439.3	104.1

Distance to Canadian border: 584.1 km

Distance to Mexican border: 1556.5 km

Conditions at FCC monitoring station: Allegan MI  
Bearing: 42.1 degrees Distance: 427.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
 Bearing: 276.7 degrees Distance: 1341.5 km

No land mobile station failures found

Study cell size: 2.00 km

Profile point spacing: 0.20 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 BLANK0000027418 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WICS	D15	DT	CP	SPRINGFIELD, IL	BLANK0000027418	
Undesireds:	WRSP-TV	D16	DT	BL	SPRINGFIELD, IL	DTVBL62009	1.4 km
	WRSP-TV	D16	DT	APP	SPRINGFIELD, IL	BLANK0000034422	0.0
	KNLC	D14	DT	APP	ST. LOUIS, MO	BLANK0000035663	185.8
	KYOU-TV	D15	DT	LIC	OTTUMWA, IA	BLANK0000001581	261.3
	W15BU-D	D15	DC	CP	JOHNSON CITY, IL	BLANK0000035857	222.5
	WTTK	D15	DT	CP	KOKOMO, IN	BLANK0000034055	278.3
	KMOS-TV	D15	DT	LIC	SEDALIA, MO	BLEDT20030108ABK	321.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
30641.1 1,036,490		30537.8 1,036,333		30433.6 1,035,461		30437.6 1,035,483	-0.01 -0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
WRSP-TV D16 DT BL		4.0		22		22	
WRSP-TV D16 DT APP		0.0		0		0.0 0	
KYOU-TV D15 DT LIC		72.0		112		39.9 54	
WTTK D15 DT CP		12.0		699		12.0 699	
KMOS-TV D15 DT LIC		48.3		97		16.2 39	

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 Interference to BLCDT20021024AAS LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTVO	D16	DT	LIC	ROCKFORD, IL	BLCDT20021024AAS	
Undesireds:	WRSP-TV	D16	DT	BL	SPRINGFIELD, IL	DTVBL62009	277.5 km
	WRSP-TV	D16	DT	APP	SPRINGFIELD, IL	BLANK0000034422	277.1
	KWQC-TV	D17	DT	CP	DAVENPORT, IA	BLANK0000033932	135.8
	WBME-CD	D17	DC	CP	MILWAUKEE, WI	BLANK0000034630	136.6
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
18475.0 1,409,708		18359.0 1,398,579		18097.7 1,373,346		18001.2 1,367,565	0.53 0.42
Undesired		Total IX		Unique IX, before		Unique IX, after	
WRSP-TV D16 DT BL		104.7		4,156		100.7 4,144	
WRSP-TV D16 DT APP		221.3		10,480		197.2 9,925	
KWQC-TV D17 DT CP		140.5		20,797		116.5 20,242	
WBME-CD D17 DC CP		20.1		292		20.1 292	

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 Interference to BLANK0000029887 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WBKI	D16	DT	CP	SALEM, IN	BLANK0000029887	
Undesireds:	WRSP-TV	D16	DT	BL	SPRINGFIELD, IL	DTVBL62009	349.7 km
	WRSP-TV	D16	DT	APP	SPRINGFIELD, IL	BLANK0000034422	351.0
	WYYW-CD	D15	DC	LIC	EVANSVILLE, IN	BLDTA20130109AGB	130.5
	WLCU-CD	D15	DC	CP	CAMPBELLSVILLE, KY	BLANK0000028622	119.8
	WXIX-TV	D15	DT	CP	NEWPORT, KY	BLANK0000034161	141.7
	WDNI-CD	D16	DC	CP	INDIANAPOLIS, IN	BLANK0000034782	162.4
	WOSU-TV	D16	DT	CP	COLUMBUS, OH	BLANK0000026429	322.2
	WHTN	D16	DT	CP	MURFREESBORO, TN	BLANK0000034213	257.2

WKOH	D17	DT	CP	OWENSBORO, KY	BLANK0000034642	140.8
WKSO-TV	D17	DT	CP	SOMERSET, KY	BLANK0000025331	159.3
WCET	D17	DT	CP	CINCINNATI, OH	BLANK0000026835	143.7

Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
36008.0	2,060,166	35337.8	2,045,734	34808.9	2,025,128	34788.8	2,024,312
							0.06 0.04

Undesired			Total IX	Unique IX, before	Unique IX, after
WRSP-TV D16 DT BL	15.9		138	8.0	84
WRSP-TV D16 DT APP	43.9		1,002		28.1 900
WYYW-CD D15 DC LIC	165.9		11,156	142.2	10,905
WLCU-CD D15 DC CP	55.8		832	23.9	433
WXIX-TV D15 DT CP	83.9		1,911	12.0	157
WDNI-CD D16 DC CP	63.7		3,812	59.7	3,634
WOSU-TV D16 DT CP	56.0		1,148	36.0	479
WHTN D16 DT CP	127.2		2,031	71.6	1,267
WKOH D17 DT CP	11.9		135	0.0	0
WKSO-TV D17 DT CP	4.0		107	0.0	0
WCET D17 DT CP	111.9		2,795	36.0	820

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Interference to BLANK0000029887 CP scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WBKI	D16	DT	CP	SALEM, IN	BLANK0000029887	
Undesireds:	WRSP-TV	D16	DT	BL	SPRINGFIELD, IL	DTVBL62009	349.7 km
	WRSP-TV	D16	DT	APP	SPRINGFIELD, IL	BLANK0000034422	351.0
	WYYW-CD	D15	DC	LIC	EVANSVILLE, IN	BLDTA20130109AGB	130.5
	WLCU-CD	D15	DC	CP	CAMPBELLSVILLE, KY	BLANK0000028622	119.8
	WXIX-TV	D15	DT	CP	NEWPORT, KY	BLANK0000034161	141.7
	WDNI-CD	D16	DC	CP	INDIANAPOLIS, IN	BLANK0000034782	162.4
	WOSU-TV	D16	DT	CP	COLUMBUS, OH	BLANK0000026429	322.2
	WHTN	D16	DT	CP	MURFREESBORO, TN	BLANK0000034213	257.2
	WKOH	D17	DT	CP	OWENSBORO, KY	BLANK0000034642	140.8
	WKSO-TV	D17	DT	APP	SOMERSET, KY	BLANK0000034631	159.3
	WCET	D17	DT	CP	CINCINNATI, OH	BLANK0000026835	143.7

Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
36008.0	2,060,166	35337.8	2,045,734	34808.9	2,025,128	34788.8	2,024,312
							0.06 0.04

Undesired			Total IX	Unique IX, before	Unique IX, after
WRSP-TV D16 DT BL	15.9		138	8.0	84
WRSP-TV D16 DT APP	43.9		1,002		28.1 900
WYYW-CD D15 DC LIC	165.9		11,156	142.2	10,905
WLCU-CD D15 DC CP	55.8		832	23.9	433
WXIX-TV D15 DT CP	83.9		1,911	12.0	157
WDNI-CD D16 DC CP	63.7		3,812	59.7	3,634
WOSU-TV D16 DT CP	56.0		1,148	36.0	479
WHTN D16 DT CP	127.2		2,031	71.6	1,267
WKOH D17 DT CP	11.9		135	0.0	0
WKSO-TV D17 DT APP	4.0		107	0.0	0
WCET D17 DT CP	111.9		2,795	36.0	820

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Interference to BLANK0000029887 CP scenario 3

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WBKI	D16	DT	CP	SALEM, IN	BLANK0000029887	
Undesireds:	WRSP-TV	D16	DT	BL	SPRINGFIELD, IL	DTVBL62009	349.7 km
	WRSP-TV	D16	DT	APP	SPRINGFIELD, IL	BLANK0000034422	351.0
	WYYW-CD	D15	DC	LIC	EVANSVILLE, IN	BLDTA20130109AGB	130.5
	WLCU-CD	D15	DC	CP	CAMPBELLSVILLE, KY	BLANK0000028622	119.8
	WXIX-TV	D15	DT	CP	NEWPORT, KY	BLANK0000034161	141.7
	WDNI-CD	D16	DC	CP	INDIANAPOLIS, IN	BLANK0000034782	162.4
	WOSU-TV	D16	DT	APP	COLUMBUS, OH	BLANK0000033620	322.2
	WHTN	D16	DT	CP	MURFREESBORO, TN	BLANK0000034213	257.2
	WKOH	D17	DT	CP	OWENSBORO, KY	BLANK0000034642	140.8
	WKSO-TV	D17	DT	CP	SOMERSET, KY	BLANK0000025331	159.3
	WCET	D17	DT	CP	CINCINNATI, OH	BLANK0000026835	143.7

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
36008.0	2,060,166	35337.8	2,045,734	34792.9	2,024,421	34772.8	2,023,605	0.06	0.04
Undesired		Total IX		Unique IX, before		Unique IX, after			
WRSP-TV D16 DT BL	15.9	138		8.0		84			
WRSP-TV D16 DT APP	43.9	1,002				28.1		900	
WYYW-CD D15 DC LIC	165.9	11,156		142.2		10,905		142.2	
WLCU-CD D15 DC CP	55.8	832		23.9		433		23.9	
WXIX-TV D15 DT CP	83.9	1,911		4.0		124		4.0	
WDNI-CD D16 DC CP	63.7	3,812		59.7		3,634		59.7	
WOSU-TV D16 DT APP	103.9	2,093		52.0		1,186		52.0	
WHTN D16 DT CP	127.2	2,031		71.6		1,267		71.6	
WKOH D17 DT CP	11.9	135		0.0		0		0.0	
WKSO-TV D17 DT CP	4.0	107		0.0		0		0.0	
WCET D17 DT CP	111.9	2,795		36.0		820		36.0	

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Interference to BLANK0000029887 CP scenario 4

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WBKI	D16	DT	CP	SALEM, IN	BLANK0000029887	
Undesireds:	WRSP-TV	D16	DT	BL	SPRINGFIELD, IL	DTVBL62009	349.7 km
	WRSP-TV	D16	DT	APP	SPRINGFIELD, IL	BLANK0000034422	351.0
	WYYW-CD	D15	DC	LIC	EVANSVILLE, IN	BLDTA20130109AGB	130.5
	WLCU-CD	D15	DC	CP	CAMPBELLSVILLE, KY	BLANK0000028622	119.8
	WXIX-TV	D15	DT	CP	NEWPORT, KY	BLANK0000034161	141.7
	WDNI-CD	D16	DC	CP	INDIANAPOLIS, IN	BLANK0000034782	162.4
	WOSU-TV	D16	DT	APP	COLUMBUS, OH	BLANK0000033620	322.2
	WHTN	D16	DT	CP	MURFREESBORO, TN	BLANK0000034213	257.2
	WKOH	D17	DT	CP	OWENSBORO, KY	BLANK0000034642	140.8
	WKSO-TV	D17	DT	APP	SOMERSET, KY	BLANK0000034631	159.3
	WCET	D17	DT	CP	CINCINNATI, OH	BLANK0000026835	143.7

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
36008.0	2,060,166	35337.8	2,045,734	34792.9	2,024,421	34772.8	2,023,605	0.06	0.04
Undesired		Total IX		Unique IX, before		Unique IX, after			
WRSP-TV D16 DT BL	15.9	138		8.0		84			
WRSP-TV D16 DT APP	43.9	1,002				28.1		900	
WYYW-CD D15 DC LIC	165.9	11,156		142.2		10,905		142.2	
WLCU-CD D15 DC CP	55.8	832		23.9		433		23.9	
WXIX-TV D15 DT CP	83.9	1,911		4.0		124		4.0	
WDNI-CD D16 DC CP	63.7	3,812		59.7		3,634		59.7	
WOSU-TV D16 DT APP	103.9	2,093		52.0		1,186		52.0	
WHTN D16 DT CP	127.2	2,031		71.6		1,267		71.6	
WKOH D17 DT CP	11.9	135		0.0		0		0.0	
WKSO-TV D17 DT APP	4.0	107		0.0		0		0.0	
WCET D17 DT CP	111.9	2,795		36.0		820		36.0	

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Interference to proposal scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WRSP-TV	D16	DT	APP	SPRINGFIELD, IL	BLANK0000034422	
Undesireds:	WICS	D15	DT	CP	SPRINGFIELD, IL	BLANK0000027418	0.0 km
	WTVO	D16	DT	LIC	ROCKFORD, IL	BLCDT20021024AAS	277.1
	WBKI	D16	DT	CP	SALEM, IN	BLANK0000029887	351.0

Service area		Terrain-limited		IX-free		Percent IX	
33905.4	1,156,134	33778.2	1,155,856	33754.2	1,155,347	0.07	0.04
Undesired		Total IX		Unique IX		Prct Unique IX	
WTVO D16 DT LIC	12.0	122		12.0		0.04	
WBKI D16 DT CP	12.0	387		12.0		0.04	