

TVSTUDY ANALYSIS

LOW POWER TELEVISION STATION WCWW-LD
SOUTH BEND, INDIANA
CHANNEL 25 15 KW (MAX-DA) 587.0 M AMSL

1. The instant application is a Special Displacement Window^{*} application for WCWW-LD. *See* FCC File No. 0000054334.
2. An interference analysis for the proposed WCWW-LD facility on Channel 25 was conducted using the FCC's *TVStudy* software. The results of this analysis are attached hereto. The proposed facility meets the FCC's interference protection requirements with respect to all protected facilities based on the post-transition allocation environment. The following cases are noted:
 - a. WJGP-LD - WJGP-LD amended its displacement application to change to Channel 25 (from Channel 23) in June 2018. The application demonstrated compliance with the 2% protection requirement of the WCWW-LD license and application facility. However, as a provision for moving to Channel 25, the WJGP-LD application accepted predicted interference received from the WCWW-LD license and application facilities. The WJGP-LD application was granted by the FCC on October 3, 2018.
 - b. WLAJ-TV - The WCWW-LD application requested a waiver for a post-transition authorization for Channel 25. This is because WLAJ-TV is currently operating on Channel 25, but will be repacking to Channel 14.
3. Based on the foregoing the WCWW-LD application meets all post-transition interference protection requirements and it can be granted a construction permit conditioned on post-transition operation.

^{*} See FCC *Public Notice* dated February 9, 2018 entitled "*Incentive Auction Task Force and Media Bureau Announce Post-Incentive Auction Special Displacement Window April 10, 2018 through May 15, 2018 and Make Location and Channel Data Available*" (DA 18-124, MB Docket No. 16-306, GN Docket No. 12-268).

INTERFERENCE ANALYSIS FOR WCWW-LD, SOUTH BEND, INDIANA, CHANNEL 25 (APPLICATION)

tvstudy v2.2.5 (4uoc83)

Database: localhost, Study: wcww25a1, Model: Longley-Rice

Study build station data: LMS TV 2018-10-11

Proposal: WCWW25A1 D25 LD APP SOUTH BEND, IN
File number: wcww25a1
Facility ID: 24617
Station data: User record
Record ID: 3284
Country: U.S.

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	WRJK-LP	D24	LD	CP	ARLINGTON HEIGHTS, IL	BMPDTL20140211ACV	123.8 km
No	WFLD	D24	DT	CP	CHICAGO, IL	BLANK0000034486	123.8
Yes	WPTA	D24	DT	APP	FORT WAYNE, IN	BLANK0000035732	101.1
Yes	WPTA	D24	DT	LIC	FORT WAYNE, IN	BLCDT20031031AGU	101.1
No	WCZA-LD	D24	LD	CP	MARION, IN	BLANK0000052710	164.3
No	WPXD-TV	D24	DT	CP	ANN ARBOR, MI	BLANK0000034355	256.0
No	WTLJ	D24	DT	LIC	MUSKEGON, MI	BLANK0000001674	150.9
No	KWKB	D25	DT	LIC	IOWA CITY, IA	BLCDT20070130AJQ	429.2
Yes	W25DW-D	D25	LD	LIC	ARBURY HILLS, IL	BLDTL20110224ACQ	122.8
Yes	WTTW	D25	DT	CP	CHICAGO, IL	BLANK0000034877	123.8
No	W25EW-D	D25	LD	CP	JACKSONVILLE, IL	BLANK0000013744	356.1
No	WEEK-TV	D25	DT	LIC	PEORIA, IL	BLCDT20090413AER	302.1
No	WMKB-LP	N25z	TX	LIC	Rochelle, IL	BLTTL20070813AFM	253.6
No	WBKM-LP	D25+	LD	CP	Rockford, IL	BLANK0000054706	253.6
Yes	W43DI-D	D25	LD	CP	FORT WAYNE, IN	BLANK0000052700	104.0
Yes	WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLCDT20090623ACJ	190.8
No	W50CI-D	D25	LD	CP	LOUISVILLE, KY	BLANK0000051790	362.4
No	WUPX-TV	D25	DT	CP	MOREHEAD, KY	BLANK0000034400	466.2
No	WWTW	D25	LD	CP	CADILLAC, MI	BLANK0000052564	351.9
No	WXYZ-TV	D25	DT	CP	DETROIT, MI	BLANK0000034678	260.2
No	WOGC-CD	D25	DC	LIC	HOLLAND, MI	BLDTA20120316ADA	134.8
Yes	WJGP-LD	D25	LD	CP	KALAMAZOO, MI	BLANK0000054651	90.3
No	WFFC-LD	D25	LD	LIC	MIDLAND, MI	BLANK0000013388	278.7
No	WFFC-LD	D25	LD	CP	MIDLAND, MI	BLANK0000036625	276.1
No	WUEK-LD	D25	LD	CP	Cleveland, OH	BLANK0000007841	374.7
No	WUEK-LD	D25	LD	APP	Cleveland, OH	BLANK0000058622	374.7
No	WUEK-LD	D25	LD	LIC	Cleveland, OH	BLANK0000007812	377.4
No	WCPX-LP	D25	LD	CP	COLUMBUS, OH	BDISDTL20080905AEC	320.0
No	WXCB-CD	D25	DC	CP	DELAWARE, OH	BLANK0000034022	279.0
No	W32DS-D	D25	LD	CP	MAPLEWOOD, OH	BLANK0000054368	182.9
No	WPNE-TV	D25	DT	LIC	GREEN BAY, WI	BLANK0000055599	343.9
No	WPNE-TV	D25	DT	CP	GREEN BAY, WI	BLANK0000031831	343.9
No	WTSJ-LP	D25	LD	CP	MILWAUKEE, WI	BLANK0000051670	216.9
No	WPVN-CD	D26	DC	CP	CHICAGO, IL	BLANK0000031140	123.3
No	WBBM-TV	D26	LD	LIC	CHICAGO, IL	BLCDT20140305ABH	134.7
No	W26DH-D	D26	LD	LIC	AUBURN, IN	BLDTL20091005ABQ	99.4
No	WISH-TV	D26	LD	APP	INDIANAPOLIS, IN	BLANK0000054863	164.3
No	WJGP-LD	D26	LD	LIC	KALAMAZOO, MI	BLDTL20091210ADC	90.3
No	WCMU-TV	D26	DT	LIC	MOUNT PLEASANT, MI	BLDTL20130710ABN	250.4
No	WDFM-LP	N26-	TX	LIC	DEFIANCE, OH	BLTTL20031007AAN	141.9
No	WUPW	D26	DT	CP	TOLEDO, OH	BLANK0000034234	227.7

No non-directional AM stations found within 0.8 km

Directional AM stations within 3.2 km:

WSBT 960 L DA2 D SOUTH BEND, IN BL

WSBT 960 L DA2 N SOUTH BEND, IN BL

Record parameters as studied:

Channel: D25

Mask: Full Service

Latitude: 41 36 54.90 N (NAD83)

Longitude: 86 11 6.60 W

INTERFERENCE ANALYSIS FOR WCWW-LD, SOUTH BEND, INDIANA, CHANNEL 25 (APPLICATION)

Height AMSL: 587.0 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: DIE-TLP-12B (ID 1003673) 30.0 deg
Elev Pattn: DIE-TLP-12B
Elec Tilt: 1.00

49.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	13.6 kW	353.7 m	59.1 km
45.0	14.7	359.3	59.8
90.0	10.2	339.4	56.9
135.0	5.38	331.5	53.0
180.0	5.53	334.5	53.3
225.0	6.07	327.3	53.4
270.0	4.87	347.0	53.3
315.0	7.97	359.4	56.5

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 344 m

Proposal 24.85 dBu contour does not cross Canadian border
Distance to Canadian border: 255.8 km

Distance to Mexican border: 1897.0 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 9.7 degrees Distance: 111.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 270.5 degrees Distance: 1604.9 km

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 BLANK0000035732 APP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WPTA	D24	DT	APP	FORT WAYNE, IN	BLANK0000035732	
Undesireds:	WCWW25A1	D25	LD	APP	SOUTH BEND, IN	wcww25a1	101.1 km
	WFLD	D24	DT	CP	CHICAGO, IL	BLANK0000034486	221.6
	WHOI	D24	DT	CP	PEORIA, IL	BLANK0000034285	373.3
	WPXD-TV	D24	DT	CP	ANN ARBOR, MI	BLANK0000034355	218.3
	WTLJ	D24	DT	LIC	MUSKEGON, MI	BLANK000001674	214.5

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
21028.0	1,122,243	21027.0	1,122,229	20965.9	1,120,702	20962.9 1,120,553	0.01 0.01

Undesired				Total IX	Unique IX, before	Unique IX, after	
WCWW25A1 D25 LD APP				8.0 276	2.0 13	3.0 149	
WFLD D24 DT CP				5.0 32	0.0 0	2.0 13	
WHOI D24 DT CP				1.0 5	4.0 46	0.0 0	
WPXD-TV D24 DT CP				11.0 242	46.1 1,260	4.0 46	
WTLJ D24 DT LIC				55.1 1,468		42.1 1,133	

Interference to BLCDT20031031AGU LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WPTA	D24	DT	LIC	FORT WAYNE, IN	BLCDT20031031AGU	
Undesireds:	WCWW25A1	D25	LD	APP	SOUTH BEND, IN	wcww25a1	101.1 km
	WFLD	D24	DT	CP	CHICAGO, IL	BLANK0000034486	221.6

INTERFERENCE ANALYSIS FOR WCWW-LD, SOUTH BEND, INDIANA, CHANNEL 25 (APPLICATION)

WPXD-TV	D24	DT	CP	ANN ARBOR, MI	BLANK0000034355	218.3
WTLJ	D24	DT	LIC	MUSKEGON, MI	BLANK0000001674	214.5

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
20167.5 1,077,858	20165.5 1,077,832	20094.3 1,075,910	20094.3 1,075,910	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WCWW25A1 D25 LD APP	3.0 142		0.0 0
WFLD D24 DT CP	7.0 153	4.0 114	4.0 114
WPXD-TV D24 DT CP	14.0 132	2.0 28	2.0 28
WTLJ D24 DT LIC	64.2 1,755	52.1 1,669	50.1 1,527

Interference to BLDLTL20110224ACQ LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W25DW-D	D25	LD	LIC	ARBURY HILLS, IL	BLDTL20110224ACQ	
Undesireds:	WCWW25A1	D25	LD	APP	SOUTH BEND, IN	wcww25a1	122.8 km
	WRJK-LP	D24	LD	CP	ARLINGTON HEIGHTS, IL	BMPDTL20140211ACV	1.3
	WFLD	D24	DT	CP	CHICAGO, IL	BLANK0000034486	1.4
	WTTW	D25	DT	CP	CHICAGO, IL	BLANK0000034877	1.4
	WEEK-TV	D25	DT	LIC	PEORIA, IL	BLCDT20090413AER	213.0
	WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLCDT20090623ACJ	250.9
	WJGP-LD	D25	LD	CP	KALAMAZOO, MI	BLANK0000054651	190.4
	WPNE-TV	D25	DT	LIC	GREEN BAY, WI	BLANK0000055599	282.3
	WPVN-CD	D26	DC	CP	CHICAGO, IL	BLANK0000031140	0.6
	WBBM-TV	D26	LD	LIC	CHICAGO, IL	BLCDT20140305ABH	12.3

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
3733.9 5,333,297	3733.9 5,333,297	65.1 162,688	65.1 162,688	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WCWW25A1 D25 LD APP	2.0 3,631		0.0 0
WRJK-LP D24 LD CP	71.0 384,327	0.0 0	0.0 0
WFLD D24 DT CP	1393.1 1,765,840	0.0 0	0.0 0
WTTW D25 DT CP	3668.8 5,170,609	2274.6 3,404,769	2274.6 3,404,769
WEEK-TV D25 DT LIC	8.0 1,889	0.0 0	0.0 0
WRTV D25 DT LIC	23.0 206,375	0.0 0	0.0 0
WPVN-CD D26 DC CP	268.7 546,584	0.0 0	0.0 0
WBBM-TV D26 LD LIC	157.9 292,821	0.0 0	0.0 0

Interference to BLANK0000034877 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTTW	D25	DT	CP	CHICAGO, IL	BLANK0000034877	
Undesireds:	WCWW25A1	D25	LD	APP	SOUTH BEND, IN	wcww25a1	123.8 km
	KWKB	D25	DT	LIC	IOWA CITY, IA	BLCDT20070130AJQ	308.4
	WEEK-TV	D25	DT	LIC	PEORIA, IL	BLCDT20090413AER	211.7
	WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLCDT20090623ACJ	250.9
	WPNE-TV	D25	DT	LIC	GREEN BAY, WI	BLANK0000055599	282.8

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
27002.6 9,775,930	26998.5 9,775,687	26526.7 9,756,011	25418.7 9,709,291	4.18 0.48

Undesired	Total IX	Unique IX, before	Unique IX, after
WCWW25A1 D25 LD APP	1414.7 53,589		1108.0 46,720
KWKB D25 DT LIC	123.8 11,864	68.8 5,009	68.8 5,009
WEEK-TV D25 DT LIC	88.2 7,846	34.2 1,085	34.2 1,085
WRTV D25 DT LIC	311.8 6,657	307.8 6,653	8.0 29
WPNE-TV D25 DT LIC	13.1 466	5.1 74	3.0 71

Interference to BLANK0000052700 CP scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W43DI-D	D25	LD	CP	FORT WAYNE, IN	BLANK0000052700	

INTERFERENCE ANALYSIS FOR WCWW-LD, SOUTH BEND, INDIANA, CHANNEL 25 (APPLICATION)

Undesireds:	WCWW25A1	D25	LD	APP	SOUTH BEND, IN	wcww25a1	104.0 km
	WPTA	D24	DT	LIC	FORT WAYNE, IN	BLCDT20031031AGU	3.3
	WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLCDT20090623ACJ	160.5
	WJGP-LD	D25	LD	CP	KALAMAZOO, MI	BLANK0000054651	115.6
	WFFC-LD	D25	LD	LIC	MIDLAND, MI	BLANK0000013388	279.1
	WUEK-LD	D25	LD	CP	Cleveland, OH	BLANK0000007841	292.2
	W26DH-D	D26	LD	LIC	AUBURN, IN	BLDTL20091005ABQ	27.2

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
3126.3 390,528	3126.3 390,528	2081.6 278,365	2074.6 278,208	0.34 0.06

Undesired	Total IX	Unique IX, before	Unique IX, after
WCWW25A1 D25 LD APP	96.7 9,206	7.0 157	
WPTA D24 DT LIC	940.0 95,768	827.2 78,391	760.8 76,653
WRTV D25 DT LIC	7.0 449	0.0 0	0.0 0
WJGP-LD D25 LD CP	6.0 562	0.0 0	0.0 0
W26DH-D D26 LD LIC	211.4 33,720	102.7 16,145	97.7 14,479

Interference to BLCDT20090623ACJ LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLCDT20090623ACJ	
Undesireds:	WCWW25A1	D25	LD	APP	SOUTH BEND, IN	wcww25a1	190.8 km
	WPTA	D24	DT	APP	FORT WAYNE, IN	BLANK0000035732	158.9
	WTTW	D25	DT	CP	CHICAGO, IL	BLANK0000034877	250.9
	WEEK-TV	D25	DT	LIC	PEORIA, IL	BLCDT20090413AER	295.2
	WUPX-TV	D25	DT	CP	MOREHEAD, KY	BLANK0000034400	313.5
	WDKA	D25	DT	CP	PADUCAH, KY	BLANK0000034371	366.0
	WXYZ-TV	D25	DT	CP	DETROIT, MI	BLANK0000034678	377.6
	WCPO-TV	D26	DT	CP	CINCINNATI, OH	BLANK0000034668	169.4

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
30732.5 2,921,761	30353.2 2,899,469	30022.9 2,884,687	29994.1 2,882,333	0.10 0.08

Undesired	Total IX	Unique IX, before	Unique IX, after
WCWW25A1 D25 LD APP	57.7 5,049	28.8 2,354	
WTTW D25 DT CP	68.7 5,255	54.7 3,053	32.8 2,525
WEEK-TV D25 DT LIC	23.1 2,936	12.0 736	12.0 736
WUPX-TV D25 DT CP	227.7 8,260	221.7 8,211	219.7 8,211
WDKA D25 DT CP	27.9 413	19.8 404	19.8 404
WXYZ-TV D25 DT CP	2.0 0	0.0 0	0.0 0
WCPO-TV D26 DT CP	4.0 173	1.0 124	1.0 124

Interference to BLANK0000054651 CP scenario 1

**IX: 8.48% interference caused

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WJGP-LD	D25	LD	CP	KALAMAZOO, MI	BLANK0000054651	
Undesireds:	WCWW25A1	D25	LD	APP	SOUTH BEND, IN	wcww25a1	90.3 km
	WPTA	D24	DT	APP	FORT WAYNE, IN	BLANK0000035732	114.8
	WTLJ	D24	DT	LIC	MUSKEGON, MI	BLANK0000001674	102.9
	WTTW	D25	DT	CP	CHICAGO, IL	BLANK0000034877	191.7
	WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLCDT20090623ACJ	258.2
	WXYZ-TV	D25	DT	CP	DETROIT, MI	BLANK0000034678	175.9
	WFFC-LD	D25	LD	LIC	MIDLAND, MI	BLANK0000013388	189.3
	WUEK-LD	D25	LD	CP	Cleveland, OH	BLANK0000007841	311.1
	WPNE-TV	D25	DT	LIC	GREEN BAY, WI	BLANK0000055599	332.7

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
6999.3 542,921	6971.1 541,381	6923.2 536,596	6018.4 491,108	13.07 8.48

Undesired	Total IX	Unique IX, before	Unique IX, after
WCWW25A1 D25 LD APP	949.7 49,946	904.8 45,488	
WTLJ D24 DT LIC	1.0 0	0.0 0	0.0 0
WTTW D25 DT CP	2.0 34	0.0 0	0.0 0
WRTV D25 DT LIC	2.0 112	0.0 0	0.0 0
WXYZ-TV D25 DT CP	47.9 4,785	42.9 4,639	2.0 327

(WJGP-LD applicant
accepted predicted
interference received from
WCWW-LD application.)

INTERFERENCE ANALYSIS FOR WCWW-LD, SOUTH BEND, INDIANA, CHANNEL 25 (APPLICATION)

Interference to proposal scenario 1
7.68% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WCWW25A1	D25	LD	APP	SOUTH BEND, IN	wcww25a1	
Undesireds:	WPTA	D24	DT	APP	FORT WAYNE, IN	BLANK0000035732	101.1 km
	WTTW	D25	DT	CP	CHICAGO, IL	BLANK0000034877	123.8
	WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLCDT20090623ACJ	190.8
	WJGP-LD	D25	LD	CP	KALAMAZOO, MI	BLANK0000054651	90.3
	WFFC-LD	D25	LD	LIC	MIDLAND, MI	BLANK0000013388	278.7
	WPNE-TV	D25	DT	LIC	GREEN BAY, WI	BLANK0000055599	343.9
	Service area		Terrain-limited		IX-free	Percent IX	
	9758.6	859,806	9750.6	859,201	8595.1	793,231	11.85 7.68
Undesired				Total IX		Unique IX	Prcnt Unique IX
WTTW D25 DT CP		766.2		46,358	761.2	46,333	7.81 5.39
WRTV D25 DT LIC		37.9		1,570	16.0	455	0.16 0.05
WJGP-LD D25 LD CP		373.3		19,157	356.4	18,067	3.65 2.10

Interference to proposal scenario 2
6.38% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WCWW25A1	D25	LD	APP	SOUTH BEND, IN	wcww25a1	
Undesireds:	WPTA	D24	DT	APP	FORT WAYNE, IN	BLANK0000035732	101.1 km
	WTTW	D25	DT	CP	CHICAGO, IL	BLANK0000034877	123.8
	WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLCDT20090623ACJ	190.8
	WFFC-LD	D25	LD	LIC	MIDLAND, MI	BLANK0000013388	278.7
	WPNE-TV	D25	DT	LIC	GREEN BAY, WI	BLANK0000055599	343.9
	WJGP-LD	D26	LD	LIC	KALAMAZOO, MI	BLDTL20091210ADC	90.3
	Service area		Terrain-limited		IX-free	Percent IX	
	9758.6	859,806	9750.6	859,201	8899.6	804,388	8.73 6.38
Undesired				Total IX		Unique IX	Prcnt Unique IX
WTTW D25 DT CP		766.2		46,358	761.2	46,333	7.81 5.39
WRTV D25 DT LIC		37.9		1,570	27.0	1,078	0.28 0.13
WJGP-LD D26 LD LIC		57.9		7,377	51.9	6,910	0.53 0.80

