

# INTERFERENCE CAUSED ANALYSIS FOR PROPOSED CHICAGO 3.0 EXPERIMENTAL FACILITY UNDER CURRENT ALLOCATION ENVIRONMENT (CHANNEL 23, 53.5 KW MAXIMUM ERP)

tvstudy v2.2.5 (4uoc83)

Database: localhost, Study: CHICAGO 3.0 (23) #2627, Model: Longley-Rice

Study build station data: LMS TV 2018-03-15

Proposal: CHICAGO 3.0 D23 DT EXP CHICAGO, IL  
File number: CHICAGO 3.0 (23)  
Facility ID: 0  
Station data: User record  
Record ID: 2421  
Country: U.S.  
Zone: I

Build options:

Protect pre-transition records not on baseline channel

Search options:

All post-transition APP, CP, and baseline records excluded

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	W25DW-D	D22	LD	CP	ARBURY HILLS, IL	BDISDTL20120106ABK	1.4 km
No	WRJK-LP	N22-	TX	LIC	ARLINGTON HEIGHTS, IL	BLTT19991020AAO	40.5
No	WBUI	D22	DT	LIC	DECATUR, IL	BLCDT20091119ACF	237.0
No	WIFR-LD	D22	LD	LIC	ROCKFORD, IL	BLANK0000021651	134.8
No	W22DW-D	D22	LD	CP	LAFAYETTE, IN	BLANK0000036239	133.0
Yes	WSBT-TV	D22	DT	LIC	SOUTH BEND, IN	BLCDT20090224ABF	121.2
Yes	WVCY-TV	D22	DT	LIC	MILWAUKEE, WI	BMLEDT20091116ABD	137.1
Yes	WQPT-TV	D23	DT	APP	MOLINE, IL	BLANK0000035678	236.6
Yes	WQPT-TV	D23	DT	LIC	MOLINE, IL	BLEDT20030702AAR	236.6
No	WIPB	D23	DT	LIC	MUNCIE, IN	BLEDT20090717ABL	273.5
No	WUEA-LD	D23	LD	LIC	South Bend, IN	BLANK0000004243	120.2
Yes	WUEA-LD	D23	LD	CP	South Bend, IN	BLANK0000036429	143.1
No	W23DZ-D	D23	LD	LIC	TERRE HAUTE, IN	BLANK0000010881	338.3
No	W23DZ-D	D23	LD	CP	TERRE HAUTE, IN	BLANK0000010909	370.9
No	W23EB-D	D23	LD	LIC	CADILLAC, MI	BLDTL20140317ABS	313.9
No	WUDT-LD	D23	LD	LIC	Detroit, MI	BLANK0000007868	373.1
No	WIEK-LD	D23	LD	LIC	MIDLAND, MI	BLANK0000014091	287.5
No	KQEG-CD	D23	DC	LIC	LA CRESCENT, MN	BLANK0000001542	363.6
No	KETC	D23	DT	CP	ST. LOUIS, MO	BLANK0000034609	444.4
No	W23DE-D	D23	LD	LIC	LIMA, OH	BLDTL20090406AHU	318.1
No	WDMY-LP	D23	LD	CP	TOLEDO, OH	BDISDTL20100303AAB	335.2
Yes	NEW	D23	LD	APP	SIOUX FALLS, SD	BNPDTL20090825AWE	214.5
Yes	WBAY-TV	D23	DT	LIC	GREEN BAY, WI	BMLCDT20040723ADS	282.8
Yes	W23BW-D	D23	DC	APP	MADISON, WI	BLANK0000035876	199.6
No	W23BW-D	D23	DC	LIC	MADISON, WI	BLDTA20140827AAD	199.6
Yes	WRJK-LP	D24	LD	CP	ARLINGTON HEIGHTS, IL	BMPDTL20140211ACV	0.1
No	WPTA	D24	DT	APP	FORT WAYNE, IN	BLANK0000035732	221.6
No	WPTA	D24	DT	LIC	FORT WAYNE, IN	BLCDT20031031AGU	221.6
No	WTLJ	D24	DT	LIC	MUSKEGON, MI	BLANK0000001674	186.0
No	WBME-CD	D24	DC	LIC	MILWAUKEE, WI	BLANK0000040426	139.1

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D23  
Latitude: 41 52 44.10 N (NAD83)  
Longitude: 87 38 10.20 W  
Height AMSL: 660.4 m  
HAAT: 480.0 m  
Peak ERP: 53.5 kW  
Antenna: ALI-ATC-BCSE12C1-U1 240.0 deg  
Elev Pattn: Generic  
Elec Tilt: 1.00

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39.7 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	18.5 kW	483.6 m	82.3 km
45.0	2.58	485.4	69.3
90.0	2.54	485.0	69.2
135.0	33.7	485.3	86.6
180.0	52.2	477.8	89.3
225.0	43.6	477.7	87.9
270.0	45.0	474.7	88.0
315.0	52.8	476.9	89.3

Database HAAT does not agree with computed HAAT

Database HAAT: 480 m    Computed HAAT: 481 m

Distance to Canadian border: 371.2 km

Distance to Mexican border: 1825.6 km

Conditions at FCC monitoring station: Allegan MI

Bearing: 59.1 degrees    Distance: 160.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 268.4 degrees    Distance: 1484.9 km

Study cell size: 2.00 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%

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Interference to BDISDTL20120106ABK CP scenario 1

**\*\*IX: 7.18% interference caused**

The W25DW-D Ch. 22 C.P. facility is not on the air. The applicant has an interference consent agreement with W25DW-D.

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W25DW-D	D22	LD	CP	ARBURY HILLS, IL	BDISDTL20120106ABK	
Undesireds:	CHICAGO	3.0D23	DT	EXP	CHICAGO, IL	CHICAGO 3.0 (23)	1.4 km
	WRJK-LP	N22-	TX	LIC	ARLINGTON HEIGHTS, IL	BLTT19991020AAO	40.9
	WUEA-LD	D23	LD	LIC	South Bend, IN	BLANK0000004243	119.5

	Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
	3948.1    5,622,661	3948.1    5,622,661	3791.7    5,276,795	3558.7    4,898,154	6.14 <b>7.18</b>

  

Undesired	Total IX	Unique IX, before	Unique IX, after
CHICAGO 3.0 D23 DT EXP	353.3    688,424		233.0    378,641
WRJK-LP N22- TX LIC	156.4    345,866	156.4    345,866	36.1    36,083

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Interference to BLCDT20090224ABF LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance	
Desired:	WSBT-TV	D22	DT	LIC	SOUTH BEND, IN	BLCDT20090224ABF		
Undesireds:	CHICAGO 3.0	D23	DT	EXP	CHICAGO, IL	CHICAGO 3.0 (23)	121.2 km	
	WYCC	D21	DT	LIC	CHICAGO, IL	BLEDT20030501ABC	120.7	
	WNEM-TV	D22	DT	LIC	BAY CITY, MI	BLCDT20050615ACI	283.2	
	WCPO-TV	D22	DT	LIC	CINCINNATI, OH	BLCDT20101216AAF	312.8	
	WVCY-TV	D22	DT	LIC	MILWAUKEE, WI	BMLEDT20091116ABD	215.0	
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
26313.3	1,691,194	26297.3	1,682,136	26176.9	1,647,175	26176.9	1,647,175	0.00 0.00
Undesired				Total IX	Unique IX, before		Unique IX, after	
CHICAGO 3.0	D23	DT	EXP	36.3	9,408	0.0	0	
WYCC	D21	DT	LIC	60.5	11,740	48.4	6,799	24.2 2,332
WNEM-TV	D22	DT	LIC	47.9	23,001	47.9	23,001	47.9 23,001
WCPO-TV	D22	DT	LIC	12.1	220	12.1	220	12.1 220
WVCY-TV	D22	DT	LIC	12.1	4,941	0.0	0	0.0 0

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Interference to BMLEDT20091116ABD LIC scenario 1

Desired:	Call WVCY-TV	Chan D22	Svc DT	Status LIC	City, State MILWAUKEE, WI	File Number BMLEDT20091116ABD	Distance
Undesireds:	CHICAGO 3.0	D23	DT	EXP	CHICAGO, IL	CHICAGO 3.0 (23)	137.1 km
	WMKE-CD	D21	DC	LIC	MILWAUKEE, WI	BLDTA20150126AAQ	0.0
	WSBT-TV	D22	DT	LIC	SOUTH BEND, IN	BLCDT20090224ABF	215.0
	WBAY-TV	D23	DT	LIC	GREEN BAY, WI	BMLCDT20040723ADS	146.2
	W23BW-D	D23	DC	APP	MADISON, WI	BLANK0000035876	127.9
Service area		Terrain-limited			IX-free, before	IX-free, after	Percent New IX
18926.6	2,543,642	18862.5	2,542,235	18695.2	2,538,086	18691.2 2,536,328	0.02 0.07
Undesired				Total IX	Unique IX, before	Unique IX, after	
CHICAGO 3.0	D23	DT	EXP	4.0	1,758	4.0	1,758
WMKE-CD	D21	DC	LIC	4.0	1,524	4.0	1,524
WSBT-TV	D22	DT	LIC	139.2	2,438	123.2	2,315
WBAY-TV	D23	DT	LIC	36.2	236	24.2	187
W23BW-D	D23	DC	APP	4.0	74	0.0	0

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Interference to BLANK0000035678 APP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance			
Desired:	WQPT-TV	D23	DT	APP	MOLINE, IL	BLANK0000035678				
Undesireds:	CHICAGO 3.0	D23	DT	EXP	CHICAGO, IL	CHICAGO 3.0 (23)	236.6 km			
	KCWI-TV	D23	DT	APP	AMES, IA	BPCDT20130205AAY	275.1			
	KETC	D23	DT	CP	ST. LOUIS, MO	BLANK0000034609	314.6			
	W23BW-D	D23	DC	APP	MADISON, WI	BLANK0000035876	207.2			
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX			
29336.7	844,350	29180.2		841,788	28855.0	836,956	28838.8	836,714	0.06	0.03
Undesired				Total IX	Unique IX, before		Unique IX, after			
CHICAGO 3.0	D23	DT	EXP	24.1	564		16.1	242		
KCWI-TV	D23	DT	APP	313.2	4,507	301.2	4,470	301.2	4,470	
KETC	D23	DT	CP	8.0	12	4.0	12	4.0	12	
W23BW-D	D23	DC	APP	16.0	350	8.0	313	4.0	0	

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Interference to BLEDT20030702AAR LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WQPT-TV	D23	DT	LIC	MOLINE, IL	BLEDT20030702AAR	
Undesireds:	CHICAGO 3.0	D23	DT	EXP	CHICAGO, IL	CHICAGO 3.0 (23)	236.6 km
	KCWI-TV	D23	DT	APP	AMES, IA	BPCDT20130205AAY	275.1
	KETC	D23	DT	CP	ST. LOUIS, MO	BLANK0000034609	314.6
	W23BW-D	D23	DC	APP	MADISON, WI	BLANK0000035876	207.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
16740.5		595,685		16724.3		594,870	0.17 0.02
Undesired		Total IX		Unique IX, before		Unique IX, after	
CHICAGO 3.0 D23 DT EXP		28.4		137		28.4 137	
KCWI-TV D23 DT APP		72.3		563		68.3 553	
KETC D23 DT CP		4.0		4		4.0 4	
W23BW-D D23 DC APP		4.0		10		0.0 0	

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Interference to BLANK0000036429 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WUEA-LD	D23	LD	CP	South Bend, IN	BLANK0000036429	
Undesireds:	CHICAGO 3.0	D23	DT	EXP	CHICAGO, IL	CHICAGO 3.0 (23)	143.1 km
	W23DZ-D	D23	LD	LIC	TERRE HAUTE, IN	BLANK0000010881	300.1
	W23BW-D	D23	DC	APP	MADISON, WI	BLANK0000035876	337.2
	WPTA	D24	DT	APP	FORT WAYNE, IN	BLANK0000035732	78.6
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
5043.5		567,981		5043.5		567,981	0.16 0.02
Undesired		Total IX		Unique IX, before		Unique IX, after	
CHICAGO 3.0 D23 DT EXP		8.1		101		8.1 101	

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Interference to BNPDTL20090825AWE APP scenario 8

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	NEW	D23	LD	APP	SIOUX FALLS, SD	BNPDTL20090825AWE	
Undesireds:	CHICAGO 3.0	D23	DT	EXP	CHICAGO, IL	CHICAGO 3.0 (23)	214.5 km
	WQPT-TV	D23	DT	LIC	MOLINE, IL	BLEDT20030702AAR	157.9
	WUEA-LD	D23	LD	LIC	South Bend, IN	BLANK0000004243	334.7
	WBAY-TV	D23	DT	LIC	GREEN BAY, WI	BMLCDT20040723ADS	248.4
	W23BW-D	D23	DC	LIC	MADISON, WI	BLDTA20140827AAD	57.2
	WUEB-LD	D24	LD	CP	Davenport, IL	BLANK0000036391	123.1
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
5094.0		93,458		4886.1		89,530	0.09 0.26
Undesired		Total IX		Unique IX, before		Unique IX, after	
CHICAGO 3.0 D23 DT EXP		4.0		199		4.0 199	
WQPT-TV D23 DT LIC		23.9		289		16.0 97	
WBAY-TV D23 DT LIC		56.0		1,092		16.0 51	
W23BW-D D23 DC LIC		323.5		11,773		291.6 10,924	

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Interference to BMLCDT20040723ADS LIC scenario 1

Desired:	Call WBAY-TV	Chan D23	Svc DT	Status LIC	City, State GREEN BAY, WI	File Number BMLCDT20040723ADS	Distance
Undesireds:	CHICAGO 3.0	D23	DT	EXP	CHICAGO, IL	CHICAGO 3.0 (23)	282.8 km
	WQPT-TV	D23	DT	APP	MOLINE, IL	BLANK0000035678	395.0
	W23BW-D	D23	DC	APP	MADISON, WI	BLANK0000035876	191.9
	WHRM-TV	D24	DT	APP	WAUSAU, WI	BLANK0000035674	145.1
Service area		Terrain-limited			IX-free, before	IX-free, after	Percent New IX
35772.7	1,225,928	35717.0	1,225,335		35358.7	1,220,409	0.00 0.00
Undesired				Total IX	Unique IX, before		Unique IX, after
CHICAGO 3.0	D23	DT	EXP	11.8	367	0.0	0
WQPT-TV	D23	DT	APP	15.8	298	0.0	0
W23BW-D	D23	DC	APP	63.5	904	39.8	494
WHRM-TV	D24	DT	APP	294.8	4,022	294.8	4,022

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Interference to BLANK0000035876 APP scenario 1

Desired:	Call W23BW-D	Chan D23	Svc DC	Status APP	City, State MADISON, WI	File Number BLANK0000035876	Distance	
Undesireds:	CHICAGO 3.0	D23	DT	EXP	CHICAGO, IL	CHICAGO 3.0 (23)	199.6 km	
	WQPT-TV	D23	DT	APP	MOLINE, IL	BLANK0000035678	207.2	
	WBAY-TV	D23	DT	LIC	GREEN BAY, WI	BMLCDT20040723ADS	191.9	
Service area		Terrain-limited			IX-free, before		IX-free, after	Percent New IX
6717.7	582,913	6546.5			580,860	6219.9	570,324	0.00 0.00
Undesired				Total IX		Unique IX, before		Unique IX, after
CHICAGO 3.0	D23	DT	EXP	4.0	9	0.0		0
WQPT-TV	D23	DT	APP	163.1	6,027	75.6	4,098	
WBAY-TV	D23	DT	LIC	250.9	6,438	163.4	4,509	

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Interference to BMPDTL20140211ACV CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance	
	WRJK-LP	D24	LD	CP	ARLINGTON HEIGHTS, IL	BMPDTL20140211ACV		
Undesireds:	CHICAGO	3.0	D23	DT	EXP	CHICAGO, IL	CHICAGO 3.0 (23)	0.1 km
	WUEA-LD	D23	LD	LIC	South Bend, IN	BLANK0000004243	120.2	
	KRUB-LD	D24	LD	LIC	CEDAR RAPIDS, IA	BLANK0000008208	336.2	
	WUEB-LD	D24	LD	CP	Davenport, IL	BLANK0000036391	222.5	
	WPTA	D24	DT	APP	FORT WAYNE, IN	BLANK0000035732	221.6	
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
8504.7	8,077,270	8500.7	8,075,073	8496.7	8,072,465	8460.6	8,050,653	0.42 0.27
Undesired				Total IX	Unique IX, before	Unique IX, after		
CHICAGO 3.0	D23	DT	EXP	36.1	21,812	36.1	21,812	
WPTA D24	DT	APP	4.0	2,608	4.0	2,608		