



WYIN - GARY, INDIANA FEBRUARY 2023 APPENDIX B Longley-Rice Interference Analysis

Please process using: **Study cell size: 0.50 km and Profile point spacing: 1.00 km**

tvstudy v2.2.5 (4uoc83)

Database: localhost, Study: WYIN 17 - TFU-24ETT VP-R C400, Model: Longley-Rice

Start: 2022.12.01 10:25:43

Study created: 2022.12.01 10:25:42

Study build station data: LMS TV 2022-12-01

Proposal: WYIN D17 DT APP GARY, IN

File number: WYIN 17 - TFU-24ETT VP-R C400

Facility ID: 49803

Station data: User record

Record ID: 10

Country: U.S.

Zone: I

Build options:

Protect pre-transition records not on baseline channel

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	WTVO	D16	DT	LIC	ROCKFORD, IL	BLCDT20021024AAS	179.9 km
No	WRSP-TV	D16	DT	LIC	SPRINGFIELD, IL	BLANK0000203556	244.4
No	WFWC-CD	D16	DC	LIC	FORT WAYNE, IN	BLANK0000087020	190.6
No	WDNI-CD	D16	DC	LIC	INDIANAPOLIS, IN	BLANK0000086458	205.2
Yes	KWQC-TV	D17	DT	LIC	DAVENPORT, IA	BLANK0000097891	257.3
No	WALV-CD	D17	DC	LIC	INDIANAPOLIS, IN	BLANK0000090311	188.4
No	WKOI	D17	DT	LIC	OWENSBORO, KY	BLANK0000087401	388.7
Yes	WOTV	D17	DT	LIC	BATTLE CREEK, MI	BLANK0000141782	209.6
No	WBNX-TV	D17	DT	LIC	AKRON, OH	BLANK0000100132	475.9
No	WCET	D17	DT	LIC	CINCINNATI, OH	BLANK0000087307	347.5
No	WEAU	D17	DT	LIC	EAU CLAIRE, WI	BLANK0000120880	468.4
Yes	WBME-CD	D17	DC	LIC	MILWAUKEE, WI	BLANK0000086894	200.7
No	WBXC-CD	D18	DC	LIC	CHAMPAIGN/URBANA, IL	BLANK0000112220	154.8
Yes	WMEU-CD	D18	DC	LIC	CHICAGO, IL	BLANK0000086889	62.1
Yes	WMEU-CD	D18	DC	CP	CHICAGO, IL	BLANK0000196962	63.9
No	WFWA	D18	DT	LIC	FORT WAYNE, IN	BLANK0000063130	186.7
No	WAWV-TV	D18	DT	LIC	TERRE HAUTE, IN	BLANK0000087258	234.1
No	WMSN-TV	D18	DT	LIC	MADISON, WI	BLANK0000113879	258.6
No	CHWI-DT-60D17		DT	BL	WINDSOR, ON	DTVBL703974	376.7

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Appendix B - Interference Analysis **WYIN - Gary, Indiana** **Channel 17 -1000 kW - Page 2**

Record parameters as studied:

Channel: D17
Latitude: 41 20 56.00 N (NAD83)
Longitude: 87 24 2.00 W
Height AMSL: 519.8 m
HAAT: 309.3 m
Peak ERP: 1000 kW
Antenna: WYIN 17 - TFU-24ETT VP-R C400 330 degs
Elev Pattnr: Generic
Elec Tilt: 1.00

39.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	719 kW	305.1 m	98.5 km
45.0	97.0	303.9	81.5
90.0	18.8	304.7	71.8
135.0	44.7	314.6	77.6
180.0	26.9	317.1	74.8
225.0	42.4	304.9	76.4
270.0	211	300.0	86.8
315.0	918	303.8	100.6

Database HAAT does not agree with computed HAAT

Database HAAT: 309 m Computed HAAT: 307 m

Distance to Canadian border: 361.1 km

Distance to Mexican border: 1800.6 km

Conditions at FCC monitoring station: Allegan MI

Bearing: 40.0 degrees Distance: 183.8 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 270.8 degrees Distance: 1504.1 km

No land mobile station failures found

Study cell size: 0.50 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 BLANK0000097891 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KWQC-TV	D17	DT	LIC	DAVENPORT, IA	BLANK0000097891	
Undesireds:	WYIN	D17	DT	BL	GARY, IN	DTVBL49803	257.2 km
	WYIN	D17	DT	APP	GARY, IN	WYIN 17 - TFU-24ETT V	257.3
	WTVO	D16	DT	LIC	ROCKFORD, IL	BLCDT20021024AAS	135.8
	KDIT-CD	D17-	DC	LIC	Des Moines, IA	BLANK0000199021	262.3
	KMIZ	D17	DT	CP	COLUMBIA, MO	BLANK0000127487	355.1
	WEAU	D17	DT	LIC	EAU CLAIRE, WI	BLANK0000120880	348.7
	WBME-CD	D17	DC	LIC	MILWAUKEE, WI	BLANK0000086894	272.1
	WMSN-TV	D18	DT	LIC	MADISON, WI	BLANK0000113879	184.7

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	35485.1	1,066,599	35137.9	1,054,860	34742.6	1,038,198	34626.3 1,035,027 0.33 0.31

Appendix B - Interference Analysis
WYIN - Gary, Indiana
Channel 17 -1000 kW - Page 3

Undesired		Total IX	Unique IX, before	Unique IX, after
WYIN D17 DT BL	251.2	11,324	224.4	10,934
WYIN D17 DT APP	389.3	15,362		
WTVO D16 DT LIC	48.0	246	39.1	186
KDIT-CD D17- DC LIC	10.2	280	7.0	153
KMIZ D17 DT CP	5.4	71	3.9	29
WEAU D17 DT LIC	113.8	5,303	89.0	4,843
WBME-CD D17 DC LIC	6.2	38	0.2	0
WMSN-TV D18 DT LIC	1.7	8	0.2	0

Interference to BLANK0000097891 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KWQC-TV	D17	DT	LIC	DAVENPORT, IA	BLANK0000097891	
Undesireds:	WYIN	D17	DT	BL	GARY, IN	DTVBL49803	257.2 km
	WYIN	D17	DT	APP	GARY, IN	WYIN 17 - TFU-24ETT V	257.3
	WTVO	D16	DT	LIC	ROCKFORD, IL	BLCDT20021024AAS	135.8
	KDIT-CD	D17-	DC	LIC	Des Moines, IA	BLANK0000199021	262.3
	KMIZ	D17	DT	LIC	COLUMBIA, MO	BLANK0000089534	355.1
	WEAU	D17	DT	LIC	EAU CLAIRE, WI	BLANK0000120880	348.7
	WBME-CD	D17	DC	LIC	MILWAUKEE, WI	BLANK0000086894	272.1
	WMSN-TV	D18	DT	LIC	MADISON, WI	BLANK0000113879	184.7
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
35485.1		1,066,599		35137.9		1,035,055	0.34 0.31

Undesired		Total IX	Unique IX, before	Unique IX, after
WYIN D17 DT BL	251.2	11,324	224.9	10,934
WYIN D17 DT APP	389.3	15,362		
WTVO D16 DT LIC	48.0	246	39.1	186
KDIT-CD D17- DC LIC	10.2	280	7.2	180
KMIZ D17 DT LIC	2.2	16	1.5	1
WEAU D17 DT LIC	113.8	5,303	89.0	4,843
WBME-CD D17 DC LIC	6.2	38	0.2	0
WMSN-TV D18 DT LIC	1.7	8	0.2	0

Interference to BLANK0000141782 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WOTV	D17	DT	LIC	BATTLE CREEK, MI	BLANK0000141782	
Undesireds:	WYIN	D17	DT	BL	GARY, IN	DTVBL49803	209.6 km
	WYIN	D17	DT	APP	GARY, IN	WYIN 17 - TFU-24ETT V	209.6
	WSMH	D16	DT	LIC	FLINT, MI	BLANK0000185127	134.8
	WBME-CD	D17	DC	LIC	MILWAUKEE, WI	BLANK0000086894	209.4
	WMEU-CD	D18	DC	LIC	CHICAGO, IL	BLANK0000086889	194.2
	WEYI-TV	D18	DT	LIC	SAGINAW, MI	BLANK0000185142	159.4
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
27579.9		2,372,499		27565.1		2,351,939	0.57 0.35

Undesired		Total IX	Unique IX, before	Unique IX, after
WYIN D17 DT BL	110.5	10,770	105.4	10,680
WYIN D17 DT APP	269.4	19,175		
WSMH D16 DT LIC	39.0	984	34.6	958
WBME-CD D17 DC LIC	9.8	401	4.7	311
WEYI-TV D18 DT LIC	4.4	26	0.0	0

Interference to BLANK0000086894 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WBME-CD	D17	DC	LIC	MILWAUKEE, WI	BLANK0000086894	

Appendix B - Interference Analysis

WYIN - Gary, Indiana

Channel 17 -1000 kW - Page 4

Undesireds:	WYIN	D17	DT	BL	GARY, IN	DTVBL49803	200.7 km
	WYIN	D17	DT	APP	GARY, IN	WYIN 17 - TFU-24ETT V	200.7
	KWQC-TV	D17	DT	LIC	DAVENPORT, IA	BLANK0000097891	272.1
	WOTV	D17	DT	LIC	BATTLE CREEK, MI	BLANK0000141782	209.4
	WEAU	D17	DT	LIC	EAU CLAIRE, WI	BLANK0000120880	297.8
	WMEU-CD	D18	DC	LIC	CHICAGO, IL	BLANK0000086889	139.1
	WMSN-TV	D18	DT	LIC	MADISON, WI	BLANK0000113879	130.4

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
10842.9 1,844,785	10820.7 1,844,287	10782.8 1,843,482	10734.0 1,841,949	0.45 0.08

Undesired	Total IX	Unique IX, before	Unique IX, after
WYIN D17 DT BL	15.1 369	4.6 193	
WYIN D17 DT APP	74.4 2,222		53.4 1,726
KWQC-TV D17 DT LIC	6.6 211	0.0 0	0.0 0
WOTV D17 DT LIC	26.4 505	9.8 199	5.6 50
WEAU D17 DT LIC	18.1 328	2.9 14	1.7 7
WMSN-TV D18 DT LIC	2.4 3	0.7 0	0.5 0

Interference to BLANK0000086889 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance		
Desired:	WMEU-CD	D18	DC	LIC	CHICAGO, IL	BLANK0000086889			
Undesireds:	WYIN	D17	DT	BL	GARY, IN	DTVBL49803	62.1 km		
	WYIN	D17	DT	APP	GARY, IN	WYIN 17 - TFU-24ETT V	62.1		
	WFWA	D18	DT	LIC	FORT WAYNE, IN	BLANK0000063130	221.0		
	WLUK-TV	D18	DT	LIC	GREEN BAY, WI	BLANK0000199689	282.7		
	WMSN-TV	D18	DT	LIC	MADISON, WI	BLANK0000113879	203.3		
	WGN-TV	D19	DT	LIC	CHICAGO, IL	BLANK0000189522	0.0		
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
13736.3	8,556,346	13734.5	8,555,894	13681.6	8,535,462	13681.1	8,535,424	0.00	0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WYIN D17 DT BL	3.5 74	2.5 58	
WYIN D17 DT APP	7.1 123		3.0 96
WFWA D18 DT LIC	0.2 20	0.0 0	0.0 0
WLUK-TV D18 DT LIC	0.2 20	0.0 0	0.0 0
WMSN-TV D18 DT LIC	18.6 8,765	11.4 6,250	11.4 6,250
WGN-TV D19 DT LIC	38.5 14,104	31.0 11,593	28.0 11,582

Interference to BLANK0000196962 CP scenario 1

Desired:	Call WMEU-CD	Chan D18	Svc DC	Status CP	City, State CHICAGO, IL	File Number BLANK0000196962	Distance		
Undesireds:	WYIN	D17	DT	BL	GARY, IN	DTVBL49803	63.9 km		
	WYIN	D17	DT	APP	GARY, IN	WYIN 17 - TFU-24ETT V	63.9		
	WFWA	D18	DT	LIC	FORT WAYNE, IN	BLANK0000063130	220.9		
	WMSN-TV	D18	DT	LIC	MADISON, WI	BLANK0000113879	202.7		
	WGN-TV	D19	DT	LIC	CHICAGO, IL	BLANK0000189522	2.5		
	Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX	
12607.5	8,306,023	12607.0		8,305,924	12162.3	8,041,791	12162.3	8,041,791	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WYIN D17 DT BL	17.6 561	1.5 36	
WYIN D17 DT APP	21.7 626		1.5 36
WFWA D18 DT LIC	0.7 763	0.0 0	0.0 0
WMSN-TV D18 DT LIC	22.6 9,989	8.9 4,586	8.9 4,586
WGN-TV D19 DT LIC	434.1 259,181	404.8 253,583	400.8 253,518

Appendix B - Interference Analysis
WYIN - Gary, Indiana
Channel 17 -1000 kW - Page 5

Interference to proposal scenario 1

1.50% interference received **Applicant accepts received interference**

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WYIN	D17	DT	APP	GARY, IN	WYIN 17 - TFU-24ETT V	
Undesireds:	KWQC-TV	D17	DT	LIC	DAVENPORT, IA	BLANK0000097891	257.3 km
	WOTV	D17	DT	LIC	BATTLE CREEK, MI	BLANK0000141782	209.6
	WBME-CD	D17	DC	LIC	MILWAUKEE, WI	BLANK0000086894	200.7
	WMEU-CD	D18	DC	LIC	CHICAGO, IL	BLANK0000086889	62.1

	Service area		Terrain-limited		IX-free		Percent IX
	22223.8	8,115,525	22220.1	8,113,867	21853.6	7,991,783	1.65 1.50
Undesired				Total IX		Unique IX	Prcnt Unique IX
KWQC-TV D17 DT LIC		124.2		78,517	111.5	66,306	0.50 0.82
WOTV D17 DT LIC		74.6		4,957	70.6	2,474	0.32 0.03
WBME-CD D17 DC LIC		8.5		1,866	0.0	0	0.00 0.00
WMEU-CD D18 DC LIC		182.6		52,802	163.9	38,709	0.74 0.48

Interference to proposal scenario 2

1.45% interference received **Applicant accepts received interference**

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WYIN	D17	DT	APP	GARY, IN	WYIN 17 - TFU-24ETT V	
Undesireds:	KWQC-TV	D17	DT	LIC	DAVENPORT, IA	BLANK0000097891	257.3 km
	WOTV	D17	DT	LIC	BATTLE CREEK, MI	BLANK0000141782	209.6
	WBME-CD	D17	DC	LIC	MILWAUKEE, WI	BLANK0000086894	200.7
	WMEU-CD	D18	DC	CP	CHICAGO, IL	BLANK0000196962	63.9

	Service area		Terrain-limited		IX-free		Percent IX
	22223.8	8,115,525	22220.1	8,113,867	21837.3	7,996,489	1.72 1.45
Undesired				Total IX		Unique IX	Prcnt Unique IX
KWQC-TV D17 DT LIC		124.2		78,517	116.2	72,925	0.52 0.90
WOTV D17 DT LIC		74.6		4,957	70.6	2,474	0.32 0.03
WBME-CD D17 DC LIC		8.5		1,866	0.0	0	0.00 0.00
WMEU-CD D18 DC CP		193.7		41,318	180.3	34,003	0.81 0.42