

INTERFERENCE ANALYSIS FOR LICENSED WXMI-LD, BATTLE CREEK, MI, CHANNEL 17, WITH RESPECT TO WOTV

tvstudy v2.2.5 (4uoc83)

Database: localhost, Study: wxmi17lic, Model: Longley-Rice

Study build station data: LMS TV 2018-04-12

Proposal: WXMI17LIC D17 LD LIC GRAND RAPIDS, MI
File number: wxmi17lic
Facility ID: 68433
Station data: User record
Record ID: 2608
Country: U.S.

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WFWC-CD	D16	DC	CP	FORT WAYNE, IN	BLANK0000025862	132.2 km
No	WCUH-LD	D16	LD	LIC	FORT WAYNE, IN	BLANK0000008063	146.6
No	WCUH-LD	D16	LD	CP	FORT WAYNE, IN	BLANK0000008088	140.8
No	WEID-LD	D16	LD	LIC	SOUTH BEND, IN	BLDTL20141105ADE	101.1
Yes	WOBC-CD	D16	DC	CP	BATTLE CREEK, MI	BLANK0000027730	1.0
No	WSMH	D16	DT	LIC	FLINT, MI	BLCDT20090804ABG	136.3
No	WL6DM-D	D16	LD	CP	LIMA, OH	BNPDTL20100609AFI	164.2
No	KWQC-TV	D17	DT	CP	DAVENPORT, IA	BLANK0000033932	447.9
No	WIDN-LD	D17	LD	LIC	ROCKFORD, IL	BLANK0000008118	317.1
No	WIDN-LD	D17	LD	CP	ROCKFORD, IL	BLANK0000013332	334.1
No	WYIN	D17	DT	LIC	GARY, IN	BLEDT20040206AAA	213.5
No	WISH-TV	D17	LD	LIC	INDIANAPOLIS, IN	BLCDT20110207ACU	280.8
No	WALV-CD	D17	DC	CP	INDIANAPOLIS, IN	BLANK0000028083	276.1
Yes	WOTV	D17	DT	CP	BATTLE CREEK, MI	BLANK0000034787	40.7
Yes	WL7DF-D	D17	LD	LIC	MUSKEGON, MI	BLDTL20110215AAG	140.2
No	WBNX-TV	D17	DT	CP	AKRON, OH	BLANK0000028072	303.5
No	WCET	D17	DT	CP	CINCINNATI, OH	BLANK0000026835	355.7
No	W23DE-D	D17	LD	APP	LIMA, OH	BLANK0000051874	187.8
No	WGBD-LD	D17	LD	APP	GREEN BAY, WI	BLANK0000048529	328.9
No	WBME-CD	D17	DC	CP	MILWAUKEE, WI	BLANK0000034630	244.6
No	WYTU-LD	D17	LD	LIC	MILWAUKEE, WI	BLDTL20120731ALQ	244.6
No	WMEU-CD	D18	DC	CP	CHICAGO, IL	BLANK0000034599	209.8
No	WFWA	D18	DT	CP	FORT WAYNE, IN	BLANK0000034724	131.8
No	WBWM-LD	D18	LD	CP	MT PLEASANT, MI	BDCCDTL20121130BNU	124.4
No	WEYI-TV	D18	DT	CP	SAGINAW, MI	BLANK0000034331	155.9
No	WDTJ-LD	D18	LD	LIC	TOLEDO, OH	BLDTL20121219ABP	150.3

No non-directional AM stations found within 0.8 km

Directional AM stations within 3.2 km:

WTOU 930 L DA2 D BATTLE CREEK, MI BL20070410AEF
WTOU 930 L DA2 N BATTLE CREEK, MI BL20070410AEF

Record parameters as studied:

Channel: D17

Mask: Stringent

Latitude: 42 17 19.40 N (NAD83)

Longitude: 85 9 11.80 W

Height AMSL: 316.0 m

HAAT: 0.0 m

Peak ERP: 15.0 kW

Antenna: JAM-JA/LS-CF-16 (ID 19448) 315.0 deg

Elev Pattnr: Generic

49.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	13.3 kW	44.1 m	34.8 km
45.0	12.7	37.3	32.6
90.0	2.17	37.0	24.4
135.0	0.726	32.4	17.9
180.0	2.17	31.5	22.8
225.0	12.7	28.6	30.5
270.0	13.3	25.9	30.7
315.0	15.0	58.5	38.8

Database HAAT does not agree with computed HAAT

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Database HAAT: 0 m Computed HAAT: 37 m

Proposal 24.04 dBu contour does not cross Canadian border
Distance to Canadian border: 166.7 km

Distance to Mexican border: 2010.4 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 298.4 degrees Distance: 74.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 268.7 degrees Distance: 1690.8 km

No land mobile station failures found

Proposal is not within the Offshore Radio Service protected area

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 BLANK0000034787 CP scenario 1

****IX: 6.33% interference caused**

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WOTV	D17	DT	CP	BATTLE CREEK, MI	BLANK0000034787	
Undesireds:	WXMI17LIC	D17	LD	LIC	GRAND RAPIDS, MI	wxmil7lic	40.7 km
	WFWC-CD	D16	DC	CP	FORT WAYNE, IN	BLANK0000025862	165.8
	WOBC-CD	D16	DC	CP	BATTLE CREEK, MI	BLANK0000027730	40.1
	WSMH	D16	DT	LIC	FLINT, MI	BLCDT20090804ABG	134.7
	WYIN	D17	DT	LIC	GARY, IN	BLEDT20040206AAA	209.6
	WALV-CD	D17	DC	CP	INDIANAPOLIS, IN	BLANK0000028083	299.7
	WBNX-TV	D17	DT	CP	AKRON, OH	BLANK0000028072	338.5
	WBME-CD	D17	DC	CP	MILWAUKEE, WI	BLANK0000034630	209.4
	WMEU-CD	D18	DC	CP	CHICAGO, IL	BLANK0000034599	194.3
	WFWA	D18	DT	CP	FORT WAYNE, IN	BLANK0000034724	164.7
	WEYI-TV	D18	DT	CP	SAGINAW, MI	BLANK0000034331	159.4

	Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
	27508.6	2,368,326	27495.6	2,357,750	7.50
			27332.8	2,208,539	6.33

	Undesired	Total IX	Unique IX, before	Unique IX, after
WXMI17LIC D17 LD LIC	2100.5	150,667	2050.6	149,211
WSMH D16 DT LIC	47.2	1,105	43.2	1,032
WYIN D17 DT LIC	107.6	9,091	64.7	7,750
WBME-CD D17 DC CP	14.0	228	3.0	81
WEYI-TV D18 DT CP	2.0	26	0.0	0

Interference to proposal scenario 1

72.01% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WXMI17LIC	D17	LD	LIC	GRAND RAPIDS, MI	wxmil7lic	
Undesireds:	WIDN-LD	D17	LD	LIC	ROCKFORD, IL	BLANK0000008118	317.1 km
	WOTV	D17	DT	CP	BATTLE CREEK, MI	BLANK0000034787	40.7
	W17DF-D	D17	LD	LIC	MUSKEGON, MI	BLDTL20110215AAG	140.2

	Service area	Terrain-limited	IX-free	Percent IX
	2812.3	192,872	2808.3	192,866
			327.3	53,979
				88.34
				72.01

	Undesired	Total IX	Unique IX	Prct Unique IX
WOTV D17 DT CP	2480.9	138,887	2469.8	138,042
W17DF-D D17 LD LIC	11.1	845	0.0	0