WWMT - KALAMAZOO, MICHIGAN
Longley-Rice Interference Analysis
tvstudy version 2.2.4
November 2017

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tvstudy v2.2.4 (Z2Qqz3)
Database: localhost,  Study: WWMT-8 OMNI TopTwr 25KW,  Model: Longley-Rice
Start: 2017.11.25 09:47:15

Study created: 2017.11.25 09:47:15

Study build station data: LMS TV 2017-11-22 (39)

    Proposal: WWMT D8 DT APP KALAMAZOO, MI
 File number: WWMT-8 OMNI TopTwr 25KW
 Facility ID: 74195
Station data: User record
   Record ID: 2476
     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   WJBK      D7         DT  LIC     DETROIT, MI              BLCDT20090813ABG       191.2 km
Yes  WOOD-TV   D7         DT  LIC     GRAND RAPIDS, MI         BLCDT20040625ABO         6.5
No   WMWC-TV   D8         DT  LIC     GALESBURG, IL            BLCDT20120820AAQ       426.1
No   WIIH-CD   D8         DC  LIC     INDIANAPOLIS, IN         BLDVL20090902ACB       309.8
No   WNMU      D8         DT  CP      MARQUETTE, MI            BLANK0000026951        452.4
No   WGTQ      D8         DT  LIC     SAULT STE. MARIE, MI     BLCDT20090622AFG       396.7
No   WJW       D8         DT  LIC     CLEVELAND, OH            BLCDT20090612AJC       345.7
No   WGCT-CD   D8         DC  LIC     COLUMBUS, OH             BLDVA20131021AAM       359.6
Yes  WLIO      D8         DT  LIC     LIMA, OH                 BLCDT20070305ABB       239.8
Yes  WMVS      D8         DT  LIC     MILWAUKEE, WI            BLEDT20120802AAO       199.6
Yes  WMVS      D8         DT  APP     MILWAUKEE, WI            BMPEDT20100730ABN      199.6
Yes  WWTV      D9         DT  LIC     CADILLAC, MI             BLCDT20091217ACZ       168.0
No   CBET-DT   D9         DT  LIC     WINDSOR, ON              BLANKCANADA242         218.7

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D8
   Latitude:  42 37 56.00 N (NAD83)
  Longitude:  85 32 16.00 W
Height AMSL: 565.0 m
       HAAT: 317.0 m
   Peak ERP: 25.0 kW
    Antenna: Omnidirectional
Elev Pattrn: Generic
  Elec Tilt: 0.75

36.0 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg   25.0 kW   316.4 m  100.7 km
 45.0       25.0      321.4    101.1
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90.0	25.0	301.9	99.6
135.0	25.0	292.9	99.1
180.0	25.0	324.4	101.3
225.0	25.0	320.0	100.9
270.0	25.0	330.2	101.8
315.0	25.0	325.0	101.4

**Proposal is within coordination distance of Canadian border
Distance to Canadian border: 202.5 km

Distance to Mexican border: 2010.3 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 265.2 degrees Distance: 34.3 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 267.1 degrees Distance: 1660.7 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%**

Interference to BLCDT20040625ABO LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WOOD-TV	D7	DT	LIC	GRAND RAPIDS, MI	BLCDT20040625ABO	
Undesireds:	WWMT	D8	DT	BL	KALAMAZOO, MI	DTVBL74195	6.5 km
	WWMT	D8	DT	APP	KALAMAZOO, MI	WWMT-8 OMNI TopTwr 25K	6.5
	WHMB-TV	D7	DT	APP	INDIANAPOLIS, IN	BLANK0000029690	315.9
	WJBK	D7	DT	LIC	DETROIT, MI	BLCDT20090813ABG	189.6
	WMVS	D8	DT	LIC	MILWAUKEE, WI	BLEDT20120802AAO	200.2

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
31571.6	2,507,053	31384.1	2,501,084	30014.8	2,408,635	30002.8	2,408,635	0.04	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
WWMT D8 DT BL	0.0	0	0.0	0		
WWMT D8 DT APP	44.1	104			12.0	0
WHMB-TV D7 DT APP	224.8	23,582	164.6	10,533	164.6	10,533
WJBK D7 DT LIC	1204.7	81,916	1144.5	68,867	1112.4	68,763

Interference to BLCDT20040625ABO LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WOOD-TV	D7	DT	LIC	GRAND RAPIDS, MI	BLCDT20040625ABO	
Undesireds:	WWMT	D8	DT	BL	KALAMAZOO, MI	DTVBL74195	6.5 km
	WWMT	D8	DT	APP	KALAMAZOO, MI	WWMT-8 OMNI TopTwr 25K	6.5
	WHMB-TV	D7	DT	CP	INDIANAPOLIS, IN	BLANK0000025233	315.9
	WJBK	D7	DT	LIC	DETROIT, MI	BLCDT20090813ABG	189.6
	WMVS	D8	DT	LIC	MILWAUKEE, WI	BLEDT20120802AAO	200.2

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
31571.6	2,507,053	31384.1	2,501,084	30119.2	2,416,324	30107.1	2,416,324	0.04	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
WWMT D8 DT BL	0.0	0	0.0	0		
WWMT D8 DT APP	44.1	104			12.0	0
WHMB-TV D7 DT CP	100.4	14,229	60.2	2,844	60.2	2,844
WJBK D7 DT LIC	1204.7	81,916	1164.6	70,531	1132.5	70,427

Interference to BLCDT20070305ABB LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WLIO	D8	DT	LIC	LIMA, OH	BLCDT20070305ABB	
Undesireds:	WWMT	D8	DT	BL	KALAMAZOO, MI	DTVBL74195	239.8 km
	WWMT	D8	DT	APP	KALAMAZOO, MI	WWMT-8 OMNI TopTwr 25K	239.8
	WBNA	D8	DT	LIC	LOUISVILLE, KY	BLCDT20021024AAB	332.4
	WJW	D8	DT	LIC	CLEVELAND, OH	BLCDT20090612AJC	213.7
	WGCT-CD	D8	DC	LIC	COLUMBUS, OH	BLDVA20131021AAM	126.2

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
24006.4	1,070,641	23559.5	1,051,173	22107.9	963,032	22071.7	960,462	0.16	0.27

Undesired	Total IX		Unique IX, before		Unique IX, after	
WWMT D8 DT BL	471.0	40,035	277.5	24,795		
WWMT D8 DT APP	543.4	52,761			313.6	27,365
WBNA D8 DT LIC	24.2	336	12.1	108	12.1	108
WJW D8 DT LIC	1037.3	58,982	578.7	31,850	542.5	21,694
WGCT-CD D8 DC LIC	393.8	16,237	120.7	4,154	120.7	4,154

Interference to BLEDT20120802AAO LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WMVS	D8	DT	LIC	MILWAUKEE, WI	BLEDT20120802AAO	
Undesireds:	WWMT	D8	DT	BL	KALAMAZOO, MI	DTVBL74195	199.6 km
	WWMT	D8	DT	APP	KALAMAZOO, MI	WWMT-8 OMNI TopTwr 25K	199.6
	WMWC-TV	D8	DT	LIC	GALESBURG, IL	BLCDT20120820AAQ	284.3
	WNMU	D8	DT	CP	MARQUETTE, MI	BLANK0000026951	362.0
	WKBT-DT	D8	DT	LIC	LA CROSSE, WI	BLCDT20090507ACT	297.7

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
31266.6	3,444,835	30597.6	3,380,983	29457.4	3,261,431	28689.7	3,254,121	2.61	0.22

Undesired	Total IX		Unique IX, before		Unique IX, after	
WWMT D8 DT BL	959.8	107,368	471.7	60,806		
WWMT D8 DT APP	1755.5	117,236			1239.4	68,116
WMWC-TV D8 DT LIC	240.1	34,769	88.3	9,106	72.2	6,734
WNMU D8 DT CP	20.1	919	4.0	59	4.0	59
WKBT-DT D8 DT LIC	536.2	39,866	76.1	2,323	68.2	2,147

Interference to BMPEDT20100730ABN APP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WMVS	D8	DT	APP	MILWAUKEE, WI	BMPEDT20100730ABN	
Undesireds:	WWMT	D8	DT	BL	KALAMAZOO, MI	DTVBL74195	199.6 km
	WWMT	D8	DT	APP	KALAMAZOO, MI	WWMT-8 OMNI TopTwr 25K	199.6
	WMWC-TV	D8	DT	LIC	GALESBURG, IL	BLCDT20120820AAQ	284.3
	WNMU	D8	DT	CP	MARQUETTE, MI	BLANK0000026951	362.0
	WKBT-DT	D8	DT	LIC	LA CROSSE, WI	BLCDT20090507ACT	297.7

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
35026.2	3,927,997	34209.7	3,881,360	32838.0	3,767,239	32053.6	3,758,379	2.39	0.24

Undesired	Total IX		Unique IX, before		Unique IX, after	
WWMT D8 DT BL	1004.4	63,328	584.0	37,851		
WWMT D8 DT APP	1832.7	77,377			1368.3	46,711
WMWC-TV D8 DT LIC	316.1	59,610	152.2	36,596	136.1	31,866
WNMU D8 DT CP	28.1	156	4.0	93	4.0	93
WKBT-DT D8 DT LIC	567.6	27,326	179.4	12,365	155.4	11,966

Interference to BLCDT20091217ACZ LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WWTV	D9	DT	LIC	CADILLAC, MI	BLCDT20091217ACZ	
Undesireds:	WWMT	D8	DT	BL	KALAMAZOO, MI	DTVBL74195	168.0 km
	WWMT	D8	DT	APP	KALAMAZOO, MI	WWMT-8 OMNI TopTwr 25K	168.0
	WAOW	D9	DT	LIC	WAUSAU, WI	BLCDT20120627ABL	355.4
	CBET-DT	D9	DT	LIC	WINDSOR, ON	BLANKCANADA242	293.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
45499.1	1,034,174	44810.0	1,022,322	44742.2	1,019,167	44726.2	1,016,829	0.04	0.23

Undesired	Total IX		Unique IX, before		Unique IX, after	
WWMT D8 DT BL	11.9	1,268	8.0	1,185		
WWMT D8 DT APP	27.9	3,606			23.9	3,523
WAOW D9 DT LIC	40.0	84	40.0	84	40.0	84
CBET-DT D9 DT LIC	19.9	1,886	15.9	1,803	15.9	1,803

Interference to proposal scenario 1
1.05% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WWMT	D8	DT	APP	KALAMAZOO, MI	WWMT-8 OMNI TopTwr 25K	
Undesireds:	WLIO	D8	DT	LIC	LIMA, OH	BLCDT20070305ABB	239.8 km
	WMVS	D8	DT	LIC	MILWAUKEE, WI	BLEDT20120802AAO	199.6
	WWTV	D9	DT	LIC	CADILLAC, MI	BLCDT20091217ACZ	168.0

Service area		Terrain-limited		IX-free		Percent IX	
31880.7	2,539,716	31728.7	2,533,786	30384.4	2,507,215	4.24	1.05

Undesired	Total IX		Unique IX		Prcnt Unique IX	
WLIO D8 DT LIC	433.5	22,079	405.5	20,413	1.28	0.81
WMVS D8 DT LIC	919.0	5,917	891.0	4,251	2.81	0.17
WWTV D9 DT LIC	19.8	241	19.8	241	0.06	0.01

Interference to proposal scenario 2
**MX: 1.36% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WWMT	D8	DT	APP	KALAMAZOO, MI	WWMT-8 OMNI TopTwr 25K	
Undesireds:	WLIO	D8	DT	LIC	LIMA, OH	BLCDT20070305ABB	239.8 km
	WMVS	D8	DT	APP	MILWAUKEE, WI	BMPEDT20100730ABN	199.6
	WWTV	D9	DT	LIC	CADILLAC, MI	BLCDT20091217ACZ	168.0

Service area		Terrain-limited		IX-free		Percent IX	
31880.7	2,539,716	31728.7	2,533,786	30180.5	2,499,313	4.88	1.36

Undesired	Total IX		Unique IX		Prcnt Unique IX	
WLIO D8 DT LIC	433.5	22,079	369.4	19,391	1.16	0.77
WMVS D8 DT APP	1163.1	14,892	1094.9	12,153	3.45	0.48
WWTV D9 DT LIC	19.8	241	15.8	190	0.05	0.01