INTERFERENCE ANALYSIS FOR PROPOSED WXMI-LD, KALAMAZOO, MI, CHANNEL 32

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tvstudy v2.2.5 (4uoc83)
Database: localhost,  Study: wxmi32p05,  Model: Longley-Rice

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

    Proposal: WXMI32P05 D32 LD APP GRAND RAPIDS, MI
 File number: wxmi32p05
 Facility ID: 68433
Station data: User record
   Record ID: 2605
     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
Yes  WNIT      D31        DT  CP      SOUTH BEND, IN           BLANK0000024784          88.7 km
No   WMYD      D31        DT  CP      DETROIT, MI              BLANK0000026818         204.6
No   WMYD      D31        DT  APP     DETROIT, MI              BLANK0000034676         204.6
No   WMKG-CD   D31        DC  CP      MUSKEGON, MI             BLANK0000034413         106.7
No   WITI      D31        DT  CP      MILWAUKEE, WI            BLANK0000034409         202.7
No   WICD      D32        DT  CP      CHAMPAIGN, IL            BLANK0000034392         312.1
No   WLS-TV    D32        LD  APP     CHICAGO, IL              BDRTCDT20090630AFT      170.0
No   WSPY-LD   D32        LD  LIC     Earlville, IL            BLANK0000013326         290.4
No   WSPY-LD   D32        LD  CP      Earlville, IL            BLANK0000013459         251.4
No   WSPY-LD   D32        LD  LIC     Earlville, IL            BLANK0000016586         251.4
No   W32EF-D   D32        LD  LIC     PEORIA, IL               BLANK0000010565         379.4
No   W32EF-D   D32        LD  CP      PEORIA, IL               BLANK0000010599         355.7
No   WLPD-CD   D32        DC  CP      PLANO, IL                BLANK0000025115         206.6
No   WLPD-CD   D32        DC  APP     PLANO, IL                BLANK0000034861         206.6
Yes  WANE-TV   D32        DT  CP      FORT WAYNE, IN           BLANK0000034806         140.5
No   WUDM-LD   D32        LD  APP     Indianapolis, IN         BLANK0000051591         256.1
No   WDRB      D32        DT  CP      LOUISVILLE, KY           BLANK0000028598         440.1
No   WDRB      D32        DT  APP     LOUISVILLE, KY           BLANK0000034591         440.1
No   WFQX-TV   D32        DT  LIC     CADILLAC, MI             BLCDT20091217ACU        205.0
Yes  WFQX-TV   D32        DT  APP     CADILLAC, MI             BLANK0000035809         205.0
No   WDIV-TV   D32        DT  CP      DETROIT, MI              BLANK0000027872         202.2
No   WJMN-TV   D32        DT  CP      ESCANABA, MI             BLANK0000028189         437.8
No   WBWM-LP   N32z       TX  LIC     MOUNT PLEASANT, MI       BLTTL20001220ABG        158.3
No   WOUB-TV   D32        DT  CP      ATHENS, OH               BLANK0000025156         444.5
No   WRAP-LP   D32        LD  CP      CLEVELAND, OH            BLANK0000001539         343.2
No   WRAP-LP   N32-       TX  LIC     CLEVELAND, OH            BLTTL19960911JC         339.6
No   WRAP-LP   N32-       TX  LIC     CLEVELAND, OH            BLTTL20110902ABQ        349.1
No   WWRD-LP   N32+       TX  LIC     DAYTON, OH               BLTTL20071011AAP        320.4
No   W32DS-D   D32        LD  LIC     MAPLEWOOD, OH            BLDTT20110104ABK        216.8
No   WTMJ-TV   D32        DT  CP      MILWAUKEE, WI            BLANK0000026765         203.1
No   WTMJ-TV   D32        DT  APP     MILWAUKEE, WI            BLANK0000034843         203.1
No   WMAQ-TV   D33        DT  CP      CHICAGO, IL              BLANK0000034535         170.0
No   WCHU-LD   D33        LD  CP      CHICAGO, IL              BMPDTL20110912ACN       168.3
No   WCHU-LD   D33        LD  CP      CHICAGO, IL              BDISDTL20100720ABQ      168.3
No   WCHU-LD   D33        LD  LIC     CHICAGO, IL              BLDTL20110928ALC        168.3
No   W33DC-D   D33        LD  CP      FORT WAYNE, IN           BNPDTL20091228AAX       150.8
No   WKAR-TV   D33        DT  CP      EAST LANSING, MI         BLANK0000027882         111.0
No   WOHO-CD   D33        DC  LIC     HOLLAND, MI              BLDTA20120316ACT         61.7
Yes  WOKZ-CD   D33        DC  CP      KALAMAZOO, MI            BLANK0000027731          1.7
No   WUHO-LP   N36+       TX  LIC     KALAMAZOO, MI            BLTTL20060103ABT         3.5

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D32
       Mask: Full Service
   Latitude:  42 18 23.00 N (NAD83)
  Longitude:  85 39 26.00 W
Height AMSL: 386.0 m
       HAAT: 0.0 m
   Peak ERP: 1.00 kW
    Antenna: Omnidirectional
Elev Pattrn: Generic
  Elec Tilt: 0.50

50.5 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg   1.00 kW   133.6 m   32.4 km
 45.0       1.00      115.5     31.1
 90.0       1.00      128.7     32.0
135.0       1.00      120.4     31.5
180.0       1.00      106.3     30.3
225.0       1.00      106.6     30.3
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270.0       1.00      138.9     32.7
315.0       1.00      138.4     32.7

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m   Computed HAAT: 124 m

Proposal 25.51 dBu contour does not cross Canadian border
Distance to Canadian border: 208.1 km

Distance to Mexican border: 1979.5 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 323.8 degrees   Distance: 41.3 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 268.2 degrees   Distance: 1649.4 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%
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Interference to BLANK0000024784 CP scenario 1

             Call      Chan  Svc Status  City, State              File Number             Distance
Desired:     WNIT      D31   DT  CP      SOUTH BEND, IN           BLANK0000024784

Undesireds:  WXMI32P05 D32   LD  APP     GRAND RAPIDS, MI         wxmi32p05                88.7 km
             WSJV      D30   DT  CP      ELKHART, IN              BLANK0000027461           0.5
             WQAD-TV   D31   DT  CP      MOLINE, IL               BLANK0000034243         350.6
             WMYD      D31   DT  CP      DETROIT, MI              BLANK0000026818         265.7
             WMKG-CD   D31   DC  CP      MUSKEGON, MI             BLANK0000034413         173.6
             WDTN      D31   DT  CP      DAYTON, OH               BLANK0000034768         266.3
             WITI      D31   DT  CP      MILWAUKEE, WI            BLANK0000034409         215.9
             WLPD-CD   D32   DC  CP      PLANO, IL                BLANK0000025115         158.9
             WANE-TV   D32   DT  CP      FORT WAYNE, IN           BLANK0000034806         102.1

        Service area       Terrain-limited       IX-free, before       IX-free, after    Percent New IX
 19614.4   1,304,265   19612.3   1,303,791   19045.7   1,262,791   19043.7   1,261,664     0.01     0.09

Undesired                        Total IX     Unique IX, before      Unique IX, after
WXMI32P05 D32 LD APP       2.0       1,127                           2.0       1,127
WSJV D30 DT CP            55.3       3,876      36.1       3,300      36.1       3,300
WQAD-TV D31 DT CP         11.1       1,127       1.0          14       1.0          14
WMYD D31 DT CP             8.0          71       6.0          16       6.0          16
WMKG-CD D31 DC CP          3.0          55       0.0           0       0.0           0
WDTN D31 DT CP           235.2      12,418      60.5       1,124      60.5       1,124
WITI D31 DT CP           112.5      18,274      94.4      16,650      94.4      16,650
WANE-TV D32 DT CP        354.6      18,728     165.7       6,881     165.7       6,881
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Interference to BLANK0000034806 CP scenario 1

             Call      Chan  Svc Status  City, State              File Number             Distance
Desired:     WANE-TV   D32   DT  CP      FORT WAYNE, IN           BLANK0000034806

Undesireds:  WXMI32P05 D32   LD  APP     GRAND RAPIDS, MI         wxmi32p05               140.5 km
             WNIT      D31   DT  CP      SOUTH BEND, IN           BLANK0000024784         102.1
             WICD      D32   DT  CP      CHAMPAIGN, IL            BLANK0000034392         257.2
             WLPD-CD   D32   DC  CP      PLANO, IL                BLANK0000025115         255.3
             WDRB      D32   DT  CP      LOUISVILLE, KY           BLANK0000028598         310.3
             WFQX-TV   D32   DT  LIC     CADILLAC, MI             BLCDT20091217ACU        338.5
             WDIV-TV   D32   DT  CP      DETROIT, MI              BLANK0000027872         225.0
             WTMJ-TV   D32   DT  CP      MILWAUKEE, WI            BLANK0000026765         315.7

        Service area       Terrain-limited       IX-free, before       IX-free, after    Percent New IX
 21895.1   1,139,719   21891.1   1,139,608   21735.6   1,128,475   21628.5   1,124,737     0.49     0.33

Undesired                        Total IX     Unique IX, before      Unique IX, after
WXMI32P05 D32 LD APP     121.1       4,113                         107.0       3,738
WNIT D31 DT CP            59.3       8,703      47.2       8,005      45.2       7,954
WICD D32 DT CP            93.4       2,926      77.3       2,156      77.3       2,156
WDRB D32 DT CP             2.0          38       0.0           0       0.0           0
WDIV-TV D32 DT CP         21.0         371      15.0         202       7.0          47
WTMJ-TV D32 DT CP          1.0           0       0.0           0       0.0           0
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Interference to BLANK0000035809 APP scenario 1

             Call      Chan  Svc Status  City, State              File Number             Distance
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Desired:	WFQX-TV	D32	DT	APP	CADILLAC, MI	BLANK0000035809	
Undesireds:	WXMI32P05	D32	LD	APP	GRAND RAPIDS, MI	wxmi32p05	205.0 km
	WLPD-CD	D32	DC	CP	PLANO, IL	BLANK0000025115	338.8
	WANE-TV	D32	DT	CP	FORT WAYNE, IN	BLANK0000034806	338.5
	WDIV-TV	D32	DT	CP	DETROIT, MI	BLANK0000027872	252.3
	WJMN-TV	D32	DT	CP	ESCANABA, MI	BLANK0000028189	255.3
	WTMJ-TV	D32	DT	CP	MILWAUKEE, WI	BLANK0000026765	236.5
	WKAR-TV	D33	DT	CP	EAST LANSING, MI	BLANK0000027882	176.2

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
31523.1	688,477	31231.2	683,387	30983.3	676,812	30983.3	676,812	0.00	0.00

Undesired	Total IX	Unique IX, before		Unique IX, after	
WXMI32P05 D32 LD APP	1.0	15		0.0	0
WANE-TV D32 DT CP	24.0	537	1.0	9	1.0	9
WDIV-TV D32 DT CP	163.4	5,443	139.4	4,911	139.4	4,911
WJMN-TV D32 DT CP	63.3	910	39.3	883	39.3	883
WTMJ-TV D32 DT CP	49.2	306	20.2	213	20.2	213
WKAR-TV D33 DT CP	13.0	272	0.0	0	0.0	0

Interference to BLANK0000027731 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WOKZ-CD	D33	DC	CP	KALAMAZOO, MI	BLANK0000027731	
Undesireds:	WXMI32P05	D32	LD	APP	GRAND RAPIDS, MI	wxmi32p05	1.7 km
	WMAQ-TV	D33	DT	CP	CHICAGO, IL	BLANK0000034535	171.0
	WKAR-TV	D33	DT	CP	EAST LANSING, MI	BLANK0000027882	110.3

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
359.3	179,726	359.3	179,726	339.4	178,066	333.3	177,286	1.79	0.44

Undesired	Total IX	Unique IX, before		Unique IX, after	
WXMI32P05 D32 LD APP	11.1	1,186		6.1	780
WMAQ-TV D33 DT CP	1.0	176	0.0	0	0.0	0
WKAR-TV D33 DT CP	20.0	1,660	19.0	1,484	14.9	1,254

Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WXMI32P05	D32	LD	APP	GRAND RAPIDS, MI	wxmi32p05	
Undesireds:	WLS-TV	D32	LD	APP	CHICAGO, IL	BDRTCDT20090630AFT	170.0 km
	WSPY-LD	D32	LD	LIC	Earlville, IL	BLANK0000013326	290.4
	WLPD-CD	D32	DC	CP	PLANO, IL	BLANK0000025115	206.6
	WANE-TV	D32	DT	CP	FORT WAYNE, IN	BLANK0000034806	140.5
	WFQX-TV	D32	DT	LIC	CADILLAC, MI	BLCDT20091217ACU	205.0
	WDIV-TV	D32	DT	CP	DETROIT, MI	BLANK0000027872	202.2
	WTMJ-TV	D32	DT	CP	MILWAUKEE, WI	BLANK0000026765	203.1

Service area		Terrain-limited		IX-free		Percent IX	
3166.1	336,392	3150.9	335,672	3073.1	331,478	2.47	1.25

Undesired	Total IX	Unique IX		Prcnt Unique IX	
WLS-TV D32 LD APP	2.0	27	0.0	0	0.00	0.00
WANE-TV D32 DT CP	68.8	4,029	61.7	3,650	1.96	1.09
WDIV-TV D32 DT CP	16.1	544	8.1	165	0.26	0.05

Interference to proposal scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WXMI32P05	D32	LD	APP	GRAND RAPIDS, MI	wxmi32p05	
Undesireds:	WLS-TV	D32	LD	APP	CHICAGO, IL	BDRTCDT20090630AFT	170.0 km
	WSPY-LD	D32	LD	LIC	Earlville, IL	BLANK0000013326	290.4
	WLPD-CD	D32	DC	CP	PLANO, IL	BLANK0000025115	206.6
	WANE-TV	D32	DT	CP	FORT WAYNE, IN	BLANK0000034806	140.5
	WFQX-TV	D32	DT	APP	CADILLAC, MI	BLANK0000035809	205.0
	WDIV-TV	D32	DT	CP	DETROIT, MI	BLANK0000027872	202.2
	WTMJ-TV	D32	DT	CP	MILWAUKEE, WI	BLANK0000026765	203.1

Service area		Terrain-limited		IX-free		Percent IX	
3166.1	336,392	3150.9	335,672	3061.1	330,935	2.85	1.41

Undesired	Total IX	Unique IX		Prcnt Unique IX	
WLS-TV D32 LD APP	2.0	27	0.0	0	0.00	0.00
WANE-TV D32 DT CP	68.8	4,029	49.5	3,417	1.57	1.02
WFQX-TV D32 DT APP	29.3	943	12.1	543	0.38	0.16
WDIV-TV D32 DT CP	16.1	544	7.0	152	0.22	0.05
