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tvstudy v2.2.5 (V9lR41)
Database: localhost,  Study: W25DW_ch31_15kW_MCI Ant,  Model: Longley-Rice
Start: 2018.03.30 15:39:20

Study created: 2018.03.30 15:39:20

Study build station data: LMS TV 2018-03-19

    Proposal: W25DW-D D31 LD LIC ARBURY HILLS, IL
 File number: BLDTL20110224ACQ
 Facility ID: 61692
Station data: User record
   Record ID: 188
     Country: U.S.

Build options:
Protect baseline records from LPTV

Search options:
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX   Call      Chan       Svc Status  City, State              File Number             Distance
No   KLJB      D30        DT  CP      DAVENPORT, IA            BLANK0000034774         237.9 km
No   WCRD-LP   D30        LD  CP      CARTHAGE, IL             BDCCDTL20061030AMS      135.7
No   WEIU-TV   D30        DT  CP      CHARLESTON, IL           BLANK0000029172         263.6
Yes  WDCI-LD   D30        LD  LIC     CHICAGO, IL              BLDTL20120131AAW          0.0
No   WSJV      D30        DT  CP      ELKHART, IN              BLANK0000027461         122.1
No   WXMI      D30        LD  LIC     GRAND RAPIDS, MI         BLCDT20140502AAR        168.6
No   WPXE-TV   D30        DT  CP      KENOSHA, WI              BLANK0000034913         135.9
No   WPVS-LP   D30        LD  CP      MILWAUKEE, WI            BMPDTL20130205ACP       136.6
No   K39LW-D   D31        LD  APP     LANSING, IA              BLANK0000035575         336.4
No   W31BX-D   D31        LD  LIC     DANVILLE, IL             BLDTT20090304ABU        195.6
Yes  WQAD-TV   D31        DT  CP      MOLINE, IL               BLANK0000034243         237.9
No   W31DT-D   D31        LD  CP      STERLING - DIXON, IL     BDCCDTL20110726AJF      164.2
No   DWKOG-LP  D31        DC  BL      INDIANAPOLIS, IN         DTVBL34894              265.6
Yes  WNIT      D31        DT  CP      SOUTH BEND, IN           BLANK0000024784         122.6
No   WVUT      D31        DT  CP      VINCENNES, IN            BLANK0000027953         359.6
No   WMYD      D31        DT  CP      DETROIT, MI              BLANK0000026818         371.7
No   WMYD      D31        DT  APP     DETROIT, MI              BLANK0000034676         371.7
No   WMKG-CD   D31        DC  CP      MUSKEGON, MI             BLANK0000034413         184.2
No   KDNL-TV   D31        DT  LIC     ST. LOUIS, MO            BLCDT20021216AAE        433.2
No   WDTN      D31        DT  CP      DAYTON, OH               BLANK0000034768         371.7
Yes  WITI      D31        DT  CP      MILWAUKEE, WI            BLANK0000034409         135.9
No   WICD      D32        DT  CP      CHAMPAIGN, IL            BLANK0000034392         203.3
No   WLS-TV    D32        LD  APP     CHICAGO, IL              BDRTCDT20090630AFT        1.4
No   WSPY-LD   D32        LD  LIC     Earlville, IL            BLANK0000013326         122.5
No   WSPY-LD   D32        LD  CP      Earlville, IL            BLANK0000013459          82.8
No   WSPY-LD   D32        LD  LIC     Earlville, IL            BLANK0000016586          82.8
No   W32EF-D   D32        LD  CP      PEORIA, IL               BLANK0000010599         197.9
No   WLPD-CD   D32        DC  CP      PLANO, IL                BLANK0000025115          38.3
No   WLPD-CD   D32        DC  APP     PLANO, IL                BLANK0000034861          38.3
No   WANE-TV   D32        DT  CP      FORT WAYNE, IN           BLANK0000034806         221.5
No   WTMJ-TV   D32        DT  CP      MILWAUKEE, WI            BLANK0000026765         136.0
No   WTMJ-TV   D32        DT  APP     MILWAUKEE, WI            BLANK0000034843         136.0
No   WTSJ-LP   N38+       TX  LIC     MILWAUKEE, WI            BLTTL20070223AGI        136.6

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D31
       Mask: Full Service
   Latitude:  41 53  6.10 N (NAD83)
  Longitude:  87 37 17.70 W
Height AMSL: 550.4 m
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       HAAT: 0.0 m
   Peak ERP: 15.0 kW
    Antenna: MCI-955532 (ID 91683) 229.0 deg
Elev Pattrn: Generic

50.4 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg  0.002 kW   375.1 m   11.5 km
 45.0      0.002      375.2     11.5
 90.0      0.002      374.9     11.5
135.0      0.002      375.2     11.5
180.0       2.35      369.0     49.6
225.0       14.6      368.5     59.5
270.0       4.34      364.8     52.8
315.0      0.003      369.1     14.1

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m   Computed HAAT: 372 m

Distance to Canadian border: 370.0 km

Distance to Mexican border: 1826.9 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 59.1 degrees   Distance: 158.8 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 268.4 degrees   Distance: 1486.1 km


Study cell size: 0.50 km
Profile point spacing: 0.10 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 BLDTL20120131AAW LIC scenario 1

             Call      Chan  Svc Status  City, State              File Number            Distance
Desired:     WDCI-LD   D30   LD  LIC     CHICAGO, IL              BLDTL20120131AAW

Undesireds:  W25DW-D   D31   LD  LIC     ARBURY HILLS, IL         BLDTL20110224ACQ         0.0 km
             WAUR-LD   D29   LD  LIC     Ottawa, IL               BLANK0000018958        122.5
             KLJB      D30   DT  CP      DAVENPORT, IA            BLANK0000034774        237.9
             WSJV      D30   DT  CP      ELKHART, IN              BLANK0000027461        122.1
             W30BU     D30   LD  CP      GREEN BAY, WI            BDFCDTL20090806ACF     276.5
             WPXE-TV   D30   DT  CP      KENOSHA, WI              BLANK0000034913        135.9

        Service area       Terrain-limited       IX-free, before        IX-free, after    Percent New IX
  8306.1   6,831,410    8304.9   6,831,410    7706.7   6,784,259    7706.7   6,784,259     0.00     0.00

Undesired                          Total IX     Unique IX, before      Unique IX, after
W25DW-D D31 LD LIC         0.3         287                              0.0           0
KLJB D30 DT CP             1.2       1,342       0.0           0      0.0           0
WSJV D30 DT CP           248.8      18,954     232.1      13,127     232.1      13,127
WPXE-TV D30 DT CP        366.0      34,024     349.1      28,197     348.8      27,910

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Interference to BLDTL20120131AAW LIC scenario 2

             Call      Chan  Svc Status  City, State              File Number            Distance
Desired:     WDCI-LD   D30   LD  LIC     CHICAGO, IL              BLDTL20120131AAW

Undesireds:  W25DW-D   D31   LD  LIC     ARBURY HILLS, IL         BLDTL20110224ACQ         0.0 km
             WAUR-LD   D29   LD  LIC     Ottawa, IL               BLANK0000018958        122.5
             KLJB      D30   DT  CP      DAVENPORT, IA            BLANK0000034774        237.9
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             WSJV      D30   DT  CP      ELKHART, IN               BLANK0000027461         122.1
             W30BU     D30   LD  CP      GREEN BAY, WI             BDFCDTL20090806ACF      276.5
             WPXE-TV   D30   DT  CP      KENOSHA, WI               BLANK0000034913         135.9
             WPVS-LP   D30   LD  CP      MILWAUKEE, WI             BMPDTL20130205ACP       136.6

        Service area       Terrain-limited       IX-free, before        IX-free, after    Percent New IX
  8306.1   6,831,410    8304.9   6,831,410    7706.7   6,784,259    7706.7   6,784,259     0.00     0.00

Undesired                          Total IX     Unique IX, before      Unique IX, after
W25DW-D D31 LD LIC          0.3         287                             0.0           0
KLJB D30 DT CP              1.2       1,342       0.0           0       0.0           0
WSJV D30 DT CP            248.8      18,954     232.1      13,127     232.1      13,127
WPXE-TV D30 DT CP         366.0      34,024     348.8      28,191     348.6      27,904
WPVS-LP D30 LD CP           1.7           6       0.0           0       0.0           0

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Interference to BLANK0000034243 CP scenario 1

             Call      Chan  Svc Status  City, State               File Number             Distance
Desired:     WQAD-TV   D31   DT  CP      MOLINE, IL                BLANK0000034243

Undesireds:  W25DW-D   D31   LD  LIC     ARBURY HILLS, IL          BLDTL20110224ACQ        237.9 km
             KDNL-TV   D31   DT  LIC     ST. LOUIS, MO             BLCDT20021216AAE        303.7
             WITI      D31   DT  CP      MILWAUKEE, WI             BLANK0000034409         284.3
             WLPD-CD   D32   DC  CP      PLANO, IL                 BLANK0000025115         199.9
             WTJR      D32   DT  LIC     QUINCY, IL                BLCDT20091110ADL        169.1

        Service area       Terrain-limited       IX-free, before        IX-free, after    Percent New IX
 32064.5   1,103,499   31753.1   1,090,799   31651.7   1,084,530   31651.7   1,084,530     0.00     0.00

Undesired                          Total IX     Unique IX, before      Unique IX, after
W25DW-D D31 LD LIC          1.7          51                             0.0           0
KDNL-TV D31 DT LIC         59.8       5,307      45.3       5,223      45.3       5,223
WITI D31 DT CP             53.2       1,036      41.6         962      41.1         962
WTJR D32 DT LIC             2.9          10       0.0           0       0.0           0

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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:  W25DW-D   D31   LD  LIC     ARBURY HILLS, IL          BLDTL20110224ACQ        122.6 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
 19596.9   1,303,604   19585.9   1,303,183   19015.1   1,262,129   19014.8   1,262,129     0.00     0.00

Undesired                          Total IX     Unique IX, before      Unique IX, after
W25DW-D D31 LD LIC         35.1       3,233                             0.3           0
WSJV D30 DT CP              5.2         111       4.7         100       4.7         100
WQAD-TV D31 DT CP          14.1       1,461       0.0           0       0.0           0
WMYD D31 DT CP             10.7         841       6.7         601       6.7         601
WMKG-CD D31 DC CP           7.2         208       0.5           0       0.5           0
WDTN D31 DT CP            269.6      16,772      49.8         594      49.8         594
WITI D31 DT CP            137.9      18,358     105.8      16,179      84.3      14,394
WANE-TV D32 DT CP         380.5      21,841     162.0       5,722     162.0       5,722

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Interference to BLANK0000024784 CP scenario 2

             Call      Chan  Svc Status  City, State               File Number             Distance
Desired:     WNIT      D31   DT  CP      SOUTH BEND, IN            BLANK0000024784
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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Undesireds: | W25DW-D | D31 | LD | LIC | ARBURY HILLS, IL | BLDTL20110224ACQ | 122.6 km |
| | WSJV | D30 | DT | CP | ELKHART, IN | BLANK0000027461 | 0.5 |
| | WQAD-TV | D31 | DT | CP | MOLINE, IL | BLANK0000034243 | 350.6 |
| | WMYD | D31 | DT | APP | DETROIT, MI | BLANK0000034676 | 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 | |
|---|---|---|---|---|---|---|---|---|---|
| 19596.9 | 1,303,604 | 19585.9 | 1,303,183 | 19004.3 | 1,261,784 | 19004.1 | 1,261,784 | 0.00 | 0.00 |

| Undesired | Total IX | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|
| W25DW-D D31 LD LIC | 35.1 | 3,233 | | 0.3 | 0 |
| WSJV D30 DT CP | 5.2 | 111 | 4.7 | 100 | 4.7 | 100 |
| WQAD-TV D31 DT CP | 14.1 | 1,461 | 0.0 | 0 | 0.0 | 0 |
| WMYD D31 DT APP | 22.9 | 1,280 | 17.5 | 946 | 17.5 | 946 |
| WMKG-CD D31 DC CP | 7.2 | 208 | 0.5 | 0 | 0.5 | 0 |
| WDTN D31 DT CP | 269.6 | 16,772 | 49.8 | 594 | 49.8 | 594 |
| WITI D31 DT CP | 137.9 | 18,358 | 105.6 | 16,150 | 84.0 | 14,365 |
| WANE-TV D32 DT CP | 380.5 | 21,841 | 162.0 | 5,722 | 162.0 | 5,722 |

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Interference to BLANK0000034409 CP scenario 1

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | WITI | D31 | DT | CP | MILWAUKEE, WI | BLANK0000034409 | |
| Undesireds: | W25DW-D | D31 | LD | LIC | ARBURY HILLS, IL | BLDTL20110224ACQ | 135.9 km |
| | WQAD-TV | D31 | DT | CP | MOLINE, IL | BLANK0000034243 | 284.3 |
| | WNIT | D31 | DT | CP | SOUTH BEND, IN | BLANK0000024784 | 215.9 |
| | WMKG-CD | D31 | DC | CP | MUSKEGON, MI | BLANK0000034413 | 137.0 |
| | WLPD-CD | D32 | DC | CP | PLANO, IL | BLANK0000025115 | 140.0 |
| | WTMJ-TV | D32 | DT | CP | MILWAUKEE, WI | BLANK0000026765 | 0.4 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 26848.8 | 3,114,422 | 26525.8 | 3,084,074 | 26070.7 | 3,057,858 | 26067.8 | 3,056,498 | 0.01 | 0.04 |

| Undesired | Total IX | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|
| W25DW-D D31 LD LIC | 5.5 | 2,252 | | 3.0 | 1,360 |
| WQAD-TV D31 DT CP | 431.5 | 25,382 | 403.5 | 23,157 | 401.8 | 22,789 |
| WNIT D31 DT CP | 16.6 | 2,393 | 6.1 | 560 | 5.8 | 451 |
| WMKG-CD D31 DC CP | 40.8 | 1,377 | 15.3 | 171 | 15.3 | 171 |

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Interference to BLANK0000034409 CP scenario 2

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | WITI | D31 | DT | CP | MILWAUKEE, WI | BLANK0000034409 | |
| Undesireds: | W25DW-D | D31 | LD | LIC | ARBURY HILLS, IL | BLDTL20110224ACQ | 135.9 km |
| | WQAD-TV | D31 | DT | CP | MOLINE, IL | BLANK0000034243 | 284.3 |
| | WNIT | D31 | DT | CP | SOUTH BEND, IN | BLANK0000024784 | 215.9 |
| | WMKG-CD | D31 | DC | CP | MUSKEGON, MI | BLANK0000034413 | 137.0 |
| | WLPD-CD | D32 | DC | CP | PLANO, IL | BLANK0000025115 | 140.0 |
| | WTMJ-TV | D32 | DT | APP | MILWAUKEE, WI | BLANK0000034843 | 0.4 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 26848.8 | 3,114,422 | 26525.8 | 3,084,074 | 26070.5 | 3,057,858 | 26067.5 | 3,056,498 | 0.01 | 0.04 |

| Undesired | Total IX | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|
| W25DW-D D31 LD LIC | 5.5 | 2,252 | | 3.0 | 1,360 |
| WQAD-TV D31 DT CP | 431.5 | 25,382 | 403.5 | 23,157 | 401.8 | 22,789 |
| WNIT D31 DT CP | 16.6 | 2,393 | 6.1 | 560 | 5.8 | 451 |
| WMKG-CD D31 DC CP | 40.8 | 1,377 | 15.3 | 171 | 15.3 | 171 |
| WTMJ-TV D32 DT APP | 0.2 | 0 | 0.2 | 0 | 0.2 | 0 |

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Interference to proposal scenario 1
**MX: 28.10% interference received

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | W25DW-D | D31 | LD | LIC | ARBURY HILLS, IL | BLDTL20110224ACQ | |
| Undesireds: | WDCI-LD | D30 | LD | LIC | CHICAGO, IL | BLDTL20120131AAW | 0.0 km |
| | WQAD-TV | D31 | DT | CP | MOLINE, IL | BLANK0000034243 | 237.9 |
| | WNIT | D31 | DT | CP | SOUTH BEND, IN | BLANK0000024784 | 122.6 |
| | WITI | D31 | DT | CP | MILWAUKEE, WI | BLANK0000034409 | 135.9 |
| | WLS-TV | D32 | LD | APP | CHICAGO, IL | BDRTCDT20090630AFT | 1.4 |
| | WSPY-LD | D32 | LD | LIC | Earlville, IL | BLANK0000013326 | 122.5 |
| | WLPD-CD | D32 | DC | CP | PLANO, IL | BLANK0000025115 | 38.3 |

| Service area | | Terrain-limited | | IX-free | | Percent IX | |
|---|---|---|---|---|---|---|---|
| 3771.0 | 5,519,055 | 3769.8 | 5,517,081 | 2769.6 | 3,966,945 | 26.53 | 28.10 |

| Undesired | Total IX | | Unique IX | | Prcnt Unique IX | |
|---|---|---|---|---|---|---|
| WDCI-LD D30 LD LIC | 554.8 | 1,103,515 | 104.8 | 316,085 | 2.78 | 5.73 |
| WQAD-TV D31 DT CP | 39.5 | 655 | 0.2 | 0 | 0.01 | 0.00 |
| WNIT D31 DT CP | 152.8 | 263,996 | 0.0 | 0 | 0.00 | 0.00 |
| WITI D31 DT CP | 238.5 | 383,678 | 2.3 | 3,160 | 0.06 | 0.06 |
| WLS-TV D32 LD APP | 888.9 | 1,225,666 | 413.7 | 429,213 | 10.98 | 7.78 |
| WLPD-CD D32 DC CP | 11.0 | 7,990 | 3.5 | 3,472 | 0.09 | 0.06 |

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Interference to proposal scenario 2
**MX: 28.10% interference received

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | W25DW-D | D31 | LD | LIC | ARBURY HILLS, IL | BLDTL20110224ACQ | |
| Undesireds: | WDCI-LD | D30 | LD | LIC | CHICAGO, IL | BLDTL20120131AAW | 0.0 km |
| | WQAD-TV | D31 | DT | CP | MOLINE, IL | BLANK0000034243 | 237.9 |
| | WNIT | D31 | DT | CP | SOUTH BEND, IN | BLANK0000024784 | 122.6 |
| | WITI | D31 | DT | CP | MILWAUKEE, WI | BLANK0000034409 | 135.9 |
| | WLS-TV | D32 | LD | APP | CHICAGO, IL | BDRTCDT20090630AFT | 1.4 |
| | WSPY-LD | D32 | LD | LIC | Earlville, IL | BLANK0000013326 | 122.5 |
| | WLPD-CD | D32 | DC | APP | PLANO, IL | BLANK0000034861 | 38.3 |

| Service area | | Terrain-limited | | IX-free | | Percent IX | |
|---|---|---|---|---|---|---|---|
| 3771.0 | 5,519,055 | 3769.8 | 5,517,081 | 2769.6 | 3,966,832 | 26.53 | 28.10 |

| Undesired | Total IX | | Unique IX | | Prcnt Unique IX | |
|---|---|---|---|---|---|---|
| WDCI-LD D30 LD LIC | 554.8 | 1,103,515 | 104.8 | 316,085 | 2.78 | 5.73 |
| WQAD-TV D31 DT CP | 39.5 | 655 | 0.2 | 0 | 0.01 | 0.00 |
| WNIT D31 DT CP | 152.8 | 263,996 | 0.0 | 0 | 0.00 | 0.00 |
| WITI D31 DT CP | 238.5 | 383,678 | 2.3 | 3,160 | 0.06 | 0.06 |
| WLS-TV D32 LD APP | 888.9 | 1,225,666 | 413.2 | 429,011 | 10.96 | 7.78 |
| WLPD-CD D32 DC APP | 11.5 | 8,305 | 3.5 | 3,585 | 0.09 | 0.06 |