# INTERFERENCE ANALYSIS FOR PROPOSED K28DD-D, BEMIDJI, MINNESOTA, CHANNEL 28 (DIGITAL FLASH-CUT) (TERRAIN PROFILE POINT SPACING OF 0.05 KM)

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tvstudy v2.2.5 (4uoc83)
Database: localhost,  Study: k28dd5f,  Model: Longley-Rice

Study build station data: LMS TV 2021-04-04

    Proposal: K28DD5 D28 LD APP BEMIDJI, MN
 File number: k28dd5
 Facility ID: 28009
Station data: User record
   Record ID: 3776
     Country: U.S.

Search options:
Non-U.S. records included

Stations potentially affected by proposal:

IX   Call      Chan       Svc Status  City, State              File Number             Distance
No   K27KN-D   D27        LD  LIC     ALEXANDRIA, MN           BLDTT20111123OCO        177.2 km
No   K27LL-D   D27        LD  LIC     BIG FALLS, MN            BLDTT20111123GIN        111.3
No   KCWV      D27        DT  LIC     DULUTH, MN               BLANK0000004652         218.0
No   KCWV      D27        DT  APP     DULUTH, MN               BLANK0000036079         218.0
No   K27MB-D   D27        LD  CP      HEWITT, MN               BNPDTL20100505AKW       160.1
No   K27LN-D   D27        LD  CP      FARGO, ND                BNPDTL20100518AEF       156.3
No   K44GH-D   D28        LD  CP      ALEXANDRIA, MN           BLANK0000053422         177.2
Yes  KAWB      D28        DT  LIC     BRAINERD, MN             BLEDT20101012ADI        119.5
No   K28QJ-D   D28        LD  CP      DULUTH, MN               BLANK0000071788         218.0
No   K28LN-D   D28        LD  APP     ORR, MN                  BLDTT20120315AAI        159.4
No   K28LL-D   D28        LD  LIC     REDWOOD FALLS, MN        BLDTT20120604AAU        324.6
No   K28PL-D   D28        LD  LIC     ROSEAU, MN               BLANK0000066872         169.1
No   K28PQ-D   D28        LD  LIC     SAINT CLOUD, MN          BLANK0000089168         247.0
No   K28OH-D   D28        LD  LIC     ST. JAMES, MN            BLANK0000064440         374.1
No   K28IF-D   D28        LD  LIC     WILLMAR, MN              BLDTL20110203ACI        256.5
No   K28MA-D   D28        LD  LIC     ARGUSVILLE, ND           BLANK0000013937         186.0
No   K42FI-D   D28+       LD  CP      WATERTOWN, SD            BLANK0000067619         338.1
No   WYOW      D28        DT  LIC     EAGLE RIVER, WI          BLCDT20121005AAF        465.2
No   WYOW      D28        DT  APP     EAGLE RIVER, WI          BPCDT20121019AAE        465.2
No   K29NY-D   D29        LD  CP      ALEXANDRA, MN            BLANK0000073085         183.7
No   K29KM-D   D29        LD  CP      ASHBY, MN                BNPDTL20100505AKS       174.9
No   K29KE-D   D29        LD  LIC     BIG FALLS, MN            BLDTT20111123GIL        111.3
No   K29LE-D   D29        LD  CP      DULUTH, MN               BNPDTL20100513ABM       217.6
No   K29EB-D   D29-       LD  LIC     GRAND RAPIDS, MN         BLANK0000016819         108.3
No   K29EB-D   N29-       TX  LIC     GRAND RAPIDS, MN         BLTT20021011AAW         108.3
No   K32FY     N32-       TX  LIC     PARK RAPIDS, MN          BLTT20020429AAS          61.4
No   KFGX-LD   N35z       TX  LIC     FARGO, ND                BLTT20070907AEX         156.3

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D28
       Mask: Simple
   Latitude:  47 28  7.00 N (NAD83)
  Longitude:  94 49 24.00 W
Height AMSL: 564.1 m
       HAAT: 147.0 m
   Peak ERP: 15.0 kW
    Antenna: Omnidirectional
Elev Pattrn: Generic

50.1 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg   15.0 kW   145.9 m   47.4 km
 45.0       15.0      149.8     47.7
 90.0       15.0      158.6     48.3
135.0       15.0      148.5     47.6
180.0       15.0      136.1     46.8
225.0       15.0      147.0     47.5
270.0       15.0      146.2     47.5
315.0       15.0      145.7     47.4

**Proposal 25.14 dBu contour crosses Canadian border, coordination required
Distance to Canadian border: 138.5 km

Distance to Mexican border: 2004.3 km

Conditions at FCC monitoring station: Grand Island NE
Bearing: 202.8 degrees   Distance: 782.0 km

Proposal is not within the West Virginia quiet zone area
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Conditions at Table Mountain receiving zone:
Bearing: 229.4 degrees  Distance: 1163.1 km

Study cell size: 1.00 km
Profile point spacing: 0.05 km (Higher resolution terrain profile point spacing is requested.)

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

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Interference to BLEDT20101012ADI LIC scenario 1

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | KAWB | D28 | DT | LIC | BRAINERD, MN | BLEDT20101012ADI | |
| Undesireds: | K28DD | N28+ | TX | LIC | BEMIDJI, MN | BLTT20080610AAL | 119.5 km |
| | K28DD5 | D28 | LD | APP | BEMIDJI, MN | k28dd5 | 119.5 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX |
|---|---|---|---|---|---|---|---|---|
| 17764.8 | 186,673 | 17719.3 | 186,472 | 17616.6 | 185,958 | 17422.4 | 185,114 | 1.10 / 0.45 |

| Undesired | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|
| K28DD N28+ TX LIC | 102.8 | 514 | 102.8 | 514 | | |
| K28DD5 D28 LD APP | 297.0 | 1,358 | | | 297.0 | 1,358 |

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Interference to proposal scenario 1

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | K28DD5 | D28 | LD | APP | BEMIDJI, MN | k28dd5 | |
| Undesireds: | KAWB | D28 | DT | LIC | BRAINERD, MN | BLEDT20101012ADI | 119.5 km |
| | K29EB-D | D29- | LD | LIC | GRAND RAPIDS, MN | BLANK0000016819 | 108.3 |

| Service area | | Terrain-limited | | IX-free | | Percent IX | |
|---|---|---|---|---|---|---|---|
| 7073.0 | 58,338 | 7034.4 | 58,271 | 6924.9 | 57,381 | 1.56 | 1.53 |

| Undesired | Total IX | | Unique IX | | Prcnt Unique IX | |
|---|---|---|---|---|---|---|
| KAWB D28 DT LIC | 109.5 | 890 | 109.5 | 890 | 1.56 | 1.53 |

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