tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: Olivia31dP, Model: Longley-Rice
Start: 2018.04.23 08:36:31

Study created: 2018.04.23 08:23:08

Study build station data: LMS TV 2018-04-19

    Proposal: K49AJ-D D31 LD APP OLIVIA, MN
 Facility ID: 55743
Station data: User record
   Record ID: 474
     Country: U.S.

Build options:
Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K16BQ	N16+	TX	LIC	BRAINERD, MN	BLTT19880608IT	182.2 km
No	KPTH	D30	DT	CP	SIOUX CITY, IA	BLANK0000033734	264.7
No	K30NI-D	D30	LD	CP	ALBERT LEO, MN	BNPDTL20100510AJS	166.0
No	K30AF-D	D30	LD	LIC	ALEXANDRIA, MN	BLDTL20120313ABL	138.0
No	K30KQ-D	D30	LD	LIC	JACKSON, MN	BLDTL20130321ACB	128.8
No	KSTC-TV	D30	DT	CP	MINNEAPOLIS, MN	BLANK0000034690	140.6
No	K30FN-D	D30	LD	LIC	ST. JAMES, MN	BLDTL20100416AAI	75.8
Yes	K30FZ-D	D30	LD	LIC	WILLMAR, MN	BLDTT20141107AAY	47.2
No	K30LU-D	D30	LD	CP	WATERTOWN, SD	BNPDTL20100505AEA	172.0
No	KMKI-LD	D31	LD	APP	Cedar Rapids, IA	BLANK0000052698	324.6
No	K39LW-D	D31	LD	APP	LANSING, IA	BLANK0000035575	331.1
No	K31MH-D	D31	LD	CP	BARNSVILLE, MN	BNPDTL20100505ALA	235.7
No	K31EF-D	D31	LD	LIC	FROST, MN	BLDTT20090730ACQ	150.6
No	WRPT	D31	DT	LIC	HIBBING, MN	BLEDT20090603AAY	326.8
No	WDMI-LD	D31	LD	LIC	MINNEAPOLIS, MN	BLDTL20100809CIU	137.9
No	K31LN-D	D31	LD	CP	ROCHESTER, MN	BNPDTL20100309AAW	213.2
No	K31LP-D	D31	LD	CP	SAINT CLOUD, MN	BLANK0000013924	99.7
Yes	K31KV-D	D31	LD	LIC	ST. JAMES, MN	BLDTL20120625AAY	75.6

No	K31MP-D	D31	LD	CP	GRAND FORKS, ND	BNPDTL20100422ACX	384.6
No	KPTP-LD	D31	LD	LIC	NORFOLK, NE	BLDTL20120106AAG	363.7
No	KMTV-TV	D31	DT	CP	OMAHA, NE	BLANK0000026767	395.0
No	K31KU-D	D31	LD	CP	RAPID CITY, SD	BPDTL20140613ABS	195.7
No	K31KU-D	D31	LD	LIC	RAPID CITY, SD	BLDTL20140228ABO	195.4
No	K31GH-D	D31-	LD	LIC	HAYWARD, WI	BLANK0000016624	303.8
No	K31GH-D	N31-	TX	LIC	HAYWARD, WI	BLTTL20020729AAS	303.8
No	KMEG	D32	DT	CP	SIOUX CITY, IA	BLANK0000034618	264.7
No	K32LB-D	D32	LD	CP	ALBERT LEO, MN	BNPDTL20100510AJT	166.0
No	K32EB-D	D32	LD	LIC	ALEXANDRIA, MN	BLDTL20120313ABP	138.0
No	K32DR-D	D32	LD	LIC	GRANITE FALLS, MN	BLDTL20110824ACY	56.0
No	WCCO-TV	D32	DT	LIC	MINNEAPOLIS, MN	BMLCDT20120907ABQ	140.6
No	K32GX-D	D32	LD	LIC	ST. JAMES, MN	BLDTL20100113ADB	75.8
No	K32DK-D	D32	LD	LIC	WATERTOWN, SD	BLDTL20131213AAT	176.4

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: Stringent
   Latitude:  44 45 32.90 N (NAD83)
  Longitude:  94 52 24.00 W
Height AMSL: 423.9 m
       HAAT: 0.0 m
   Peak ERP: 0.790 kW
    Antenna: SCA-4X2KBBU (ID 20756) 220.0 deg
Elev Pattrn: Generic
```

50.4 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.003 kW	84.8 m	7.0 km
45.0	0.002	86.6	6.6
90.0	0.006	93.3	8.6
135.0	0.198	92.3	20.3
180.0	0.720	94.7	27.4

225.0	0.624	97.4	27.0
270.0	0.790	94.9	27.9
315.0	0.111	88.9	16.9

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 92 m

Distance to Canadian border: 425.6 km

Distance to Mexican border: 1758.3 km

Conditions at FCC monitoring station: Grand Island NE
Bearing: 215.4 degrees Distance: 515.5 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 242.5 degrees Distance: 990.2 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%

Interference to BLDTT20141107AAY LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	K30FZ-D	D30	LD	LIC	WILLMAR, MN	BLDTT20141107AAY	
Undesireds:	K49AJ-D	D31	LD	APP	OLIVIA, MN		47.2 km
	K29JW-D	D29	LD	LIC	GRANITE FALLS, MN	BLDTT20110824ACG	58.3
	K30AF-D	D30	LD	LIC	ALEXANDRIA, MN	BLDTL20120313ABL	90.9
	KSTC-TV	D30	DT	CP	MINNEAPOLIS, MN	BLANK0000034690	149.8
	K30FN-D	D30	LD	LIC	ST. JAMES, MN	BLDTL20100416AAI	122.9

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
6785.2	80,850	6781.2	80,840	6345.6	69,576	6343.6	69,508	0.03	0.10

Undesired		Total IX	Unique IX, before		Unique IX, after	
K49AJ-D D31 LD APP	4.1	852			2.0	68
K29JW-D D29 LD LIC	1.0	3	1.0	3	1.0	3
K30AF-D D30 LD LIC	8.0	32	4.0	21	4.0	21
KSTC-TV D30 DT CP	392.2	10,236	388.2	10,225	388.2	10,225
K30FN-D D30 LD LIC	38.3	1,004	38.3	1,004	36.3	220

Interference to BLDTL20120625AAY LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	K31KV-D	D31	LD	LIC	ST. JAMES, MN	BLDTL20120625AAY	
Undesireds:	K49AJ-D	D31	LD	APP	OLIVIA, MN		75.6 km
	K30FN-D	D30	LD	LIC	ST. JAMES, MN	BLDTL20100416AAI	0.3
	K31KU-D	D31	LD	CP	RAPID CITY, SD	BPDTL20140613ABS	187.6
	K31GH-D	D31-	LD	LIC	HAYWARD, WI	BLANK0000016624	327.2
	K32GX-D	D32	LD	LIC	ST. JAMES, MN	BLDTL20100113ADB	0.3

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
4272.1	49,456	4268.1	49,428	2861.0	34,975	2860.0	34,975	0.04	0.00

Undesired		Total IX	Unique IX, before		Unique IX, after	
K49AJ-D D31 LD APP	3.0	18			1.0	0
K30FN-D D30 LD LIC	1407.1	14,453	1392.0	12,242	1390.0	12,224
K32GX-D D32 LD LIC	15.1	2,211	0.0	0	0.0	0

Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	K49AJ-D	D31	LD	APP	OLIVIA, MN		
Undesireds:	K31KV-D	D31	LD	LIC	ST. JAMES, MN	BLDTL20120625AAY	75.6 km

K31KU-D	D31	LD	CP	RAPID CITY, SD	BPDTL20140613ABS	195.7
K31GH-D	D31-	LD	LIC	HAYWARD, WI	BLANK0000016624	303.8

Service area		Terrain-limited		IX-free		Percent IX	
1195.3	8,874	1193.3	8,873	1169.3	8,794	2.01	0.89

Undesired		Total IX		Unique IX		Prcnt Unique IX	
K31KV-D D31 LD LIC	24.0		79	24.0	79	2.01	0.89