

Note:
Study cell size: 1.00 km
Profile point spacing: 0.10 km

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: K18KU_Ch32_Omni_Move_Pre, Model: Longley-Rice
Start: 2019.05.03 15:31:24

Study created: 2019.05.03 15:30:02

Study build station data: LMS TV 2019-05-02

Proposal: K18KU-D D32 LD APP DULUTH, MN
File number: K18KU_Ch32_Omni_Move
Facility ID: 186867
Station data: User record
Record ID: 952
Country: U.S.

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

Search options:
Baseline record excluded if station has CP
All records for new LPTV stations excluded

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K29EB-D	N29-	TX	LIC	GRAND RAPIDS, MN	BLTT20021011AAW	114.7 km
No	WRPT	D31	DT	LIC	HIBBING, MN	BLDT20090603AAY	91.5
No	WDMI-LD	D31	LD	LIC	MINNEAPOLIS, MN	BLDTL20100809CIU	207.9
No	K31GH-D	D31-	LD	LIC	HAYWARD, WI	BLANK0000016624	103.4
No	K31GH-D	N31-	TX	LIC	HAYWARD, WI	BLTTL20020729AAS	103.4
No	WJMN-TV	D32	DT	LIC	ESCANABA, MI	BLANK0000063727	402.2
Yes	W32CV-D	D32+	LD	LIC	IRONWOOD, MI	BLANK0000016623	152.0
Yes	W32CV-D	N32+	TX	LIC	IRONWOOD, MI	BLTT20040217ACE	152.0
No	K32LB-D	D32	LD	CP	ALBERT LEO, MN	BNPDTL20100510AJT	359.0
No	K32EB-D	D32	LD	LIC	ALEXANDRIA, MN	BLDTL20120313ABP	272.5
No	K32DR-D	D32	LD	LIC	GRANITE FALLS, MN	BLDTL20110824ACY	347.2
No	K32JZ-D	D32	LD	LIC	KABETOGAMA, MN	BLDTT20110719ABI	187.3
Yes	WCCO-TV	D32	DT	LIC	MINNEAPOLIS, MN	BMLCDT20120907ABQ	207.4
No	K32FY	N32-	TX	LIC	PARK RAPIDS, MN	BLTT20020429AAS	220.2
No	K32MF-D	D32	LD	LIC	RED LAKE, MN	BLANK0000068190	249.4
No	K32GX-D	D32	LD	LIC	ST. JAMES, MN	BLDTL20100113ADB	355.1
No	W32EG-D	D32	LD	LIC	WILLIAMS, MN	BLDTT20120601AIE	314.0
No	K32KX-D	D32	LD	CP	FARGO, ND	BNPDTL20100902ABA	353.6
No	WIFS	D32	DT	LIC	JANESVILLE, WI	BLCDT20040930BHL	464.0
No	W32DW-D	D32	LD	CP	LA CROSSE, WI	BNPDTL20090825CAP	323.3
No	K32GF	N32-	TX	LIC	RHINELANDER, WI	BLTT20050929AGL	247.4
No	KDLH	D33	DT	LIC	DULUTH, MN	BLANK0000007407	0.3
No	K33OG-D	D33	LD	LIC	MAX, MN	BLANK0000063811	175.0
No	K33LN-D	D33	DC	LIC	MINNEAPOLIS, MN	BLDTA20111219AEB	220.3

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D32
Mask: Full Service
Latitude: 46 47 15.80 N (NAD83)
Longitude: 92 7 2.40 W
Height AMSL: 464.7 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: Omnidirectional
Elev Pattn: Generic

50.5 dBu contour:
Azimuth ERP HAAT Distance

0.0 deg	15.0 kW	42.7 m	33.4 km
45.0	15.0	154.2	47.6
90.0	15.0	281.7	55.0
135.0	15.0	281.5	55.0
180.0	15.0	268.3	54.2
225.0	15.0	142.6	46.8
270.0	15.0	63.2	38.0
315.0	15.0	36.4	31.6

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 159 m

**Proposal 25.51 dBu contour crosses Canadian border, coordination required
Distance to Canadian border: 145.6 km

Distance to Mexican border: 2054.0 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 131.5 degrees Distance: 672.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 239.8 degrees Distance: 1286.4 km

Study cell size: 1.00 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%

Interference to BLANK0000016623 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W32CV-D	D32+	LD	LIC	IRONWOOD, MI	BLANK0000016623	
Undesireds:	K18KU-D	D32	LD	APP	DULUTH, MN	K18KU_Ch32_Omni_Move	152.0 km
	K31GH-D	D31-	LD	LIC	HAYWARD, WI	BLANK0000016624	105.5
	WJMN-TV	D32	DT	LIC	ESCANABA, MI	BLANK0000063727	251.3
	WCCO-TV	D32	DT	LIC	MINNEAPOLIS, MN	BMLCDT20120907ABQ	275.3
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
5673.3 23,390		5091.3 22,784		5077.2 22,777		5056.0 22,752	0.42 0.11
Undesired		Total IX		Unique IX, before		Unique IX, after	
K18KU-D D32 LD APP		24.2 25				21.2 25	
WJMN-TV D32 DT LIC		11.1 5		11.1 5		9.1 5	
WCCO-TV D32 DT LIC		3.0 2		3.0 2		2.0 2	

Interference to BLTT20040217ACE LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W32CV-D	N32+	TX	LIC	IRONWOOD, MI	BLTT20040217ACE	
Undesireds:	K18KU-D	D32	LD	APP	DULUTH, MN	K18KU_Ch32_Omni_Move	152.0 km
	K31GH-D	D31-	LD	LIC	HAYWARD, WI	BLANK0000016624	105.5
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
1174.8 16,541		1081.1 16,320		1081.1 16,320		1080.1 16,320	0.09 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
K18KU-D D32 LD APP		1.0 0				1.0 0	

Interference to BMLCDT20120907ABQ LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WCCO-TV	D32	DT	LIC	MINNEAPOLIS, MN	BMLCDT20120907ABQ	
Undesireds:	K18KU-D	D32	LD	APP	DULUTH, MN	K18KU_Ch32_Omni_Move	207.4 km

KMEG	D32	DT	LIC	SIOUX CITY, IA	BLANK0000064025	369.8
K33LN-D	D33	DC	LIC	MINNEAPOLIS, MN	BLDTA20111219AEB	14.2

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
38117.3 3,837,934	37517.2 3,821,146	37494.1 3,820,601	37448.0 3,820,045	0.12 0.01

Undesired	Total IX	Unique IX, before	Unique IX, after
K18KU-D D32 LD APP	46.1 556		46.1 556
KMEG D32 DT LIC	21.1 472	21.1 472	21.1 472
K33LN-D D33 DC LIC	2.0 73	2.0 73	2.0 73

Interference to proposal scenario 1
10.66% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	K18KU-D	D32	LD	APP	DULUTH, MN	K18KU_Ch32_Omni_Move	
Undesireds:	K31GH-D	D31-	LD	LIC	HAYWARD, WI	BLANK0000016624	103.4 km
	W32CV-D	D32+	LD	LIC	IRONWOOD, MI	BLANK0000016623	152.0
	WCCO-TV	D32	DT	LIC	MINNEAPOLIS, MN	BMLCDT20120907ABQ	207.4
	KDLH	D33	DT	LIC	DULUTH, MN	BLANK0000007407	0.3

Service area	Terrain-limited	IX-free	Percent IX
6770.4 195,472	6730.1 195,175	5078.6 174,373	24.54 10.66

Undesired	Total IX	Unique IX	Prcnt Unique IX
K31GH-D D31- LD LIC	4.0 1	0.0 0	0.00 0.00
W32CV-D D32+ LD LIC	7.1 705	2.0 32	0.03 0.02
WCCO-TV D32 DT LIC	99.4 2,393	55.7 1,630	0.83 0.84
KDLH D33 DT LIC	1589.6 19,131	1550.1 18,377	23.03 9.42

Interference to proposal scenario 2
10.64% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	K18KU-D	D32	LD	APP	DULUTH, MN	K18KU_Ch32_Omni_Move	
Undesireds:	K31GH-D	D31-	LD	LIC	HAYWARD, WI	BLANK0000016624	103.4 km
	WCCO-TV	D32	DT	LIC	MINNEAPOLIS, MN	BMLCDT20120907ABQ	207.4
	KDLH	D33	DT	LIC	DULUTH, MN	BLANK0000007407	0.3

Service area	Terrain-limited	IX-free	Percent IX
6770.4 195,472	6730.1 195,175	5080.6 174,405	24.51 10.64

Undesired	Total IX	Unique IX	Prcnt Unique IX
K31GH-D D31- LD LIC	4.0 1	0.0 0	0.00 0.00
WCCO-TV D32 DT LIC	99.4 2,393	58.8 1,639	0.87 0.84
KDLH D33 DT LIC	1589.6 19,131	1550.1 18,377	23.03 9.42

Interference to proposal scenario 3
10.66% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	K18KU-D	D32	LD	APP	DULUTH, MN	K18KU_Ch32_Omni_Move	
Undesireds:	W32CV-D	D32+	LD	LIC	IRONWOOD, MI	BLANK0000016623	152.0 km
	WCCO-TV	D32	DT	LIC	MINNEAPOLIS, MN	BMLCDT20120907ABQ	207.4
	KDLH	D33	DT	LIC	DULUTH, MN	BLANK0000007407	0.3

Service area	Terrain-limited	IX-free	Percent IX
6770.4 195,472	6730.1 195,175	5078.6 174,373	24.54 10.66

Undesired	Total IX	Unique IX	Prcnt Unique IX
W32CV-D D32+ LD LIC	7.1 705	2.0 32	0.03 0.02
WCCO-TV D32 DT LIC	99.4 2,393	56.7 1,630	0.84 0.84
KDLH D33 DT LIC	1589.6 19,131	1550.1 18,377	23.03 9.42

Interference to proposal scenario 4
10.64% interference received

Desired:	Call K18KU-D	Chan D32	Svc LD	Status APP	City, State DULUTH, MN	File Number K18KU_Ch32_Omni_Move	Distance
Undesireds:	WCCO-TV KDLH	D32 D33	DT DT	LIC LIC	MINNEAPOLIS, MN DULUTH, MN	BMLCDT20120907ABQ BLANK0000007407	207.4 km 0.3
	Service area			Terrain-limited		IX-free	Percent IX
	6770.4 195,472			6730.1 195,175	5080.6	174,405	24.51 10.64
Undesired				Total IX		Unique IX	Prcnt Unique IX
WCCO-TV D32 DT LIC				99.4 2,393 59.8		1,639	0.89 0.84
KDLH D33 DT LIC				1589.6 19,131 1550.1		18,377	23.03 9.42