tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: WUMN-LD BLDTL20141217AAM, Model: Longley-Rice
Start: 2018.04.18 10:28:16

Study created: 2018.04.18 10:28:16

Study build station data: LMS TV 2018-04-17

    Proposal: WUMN-LD D17 LD LIC MINNEAPOLIS, MN
 File number: WUMN-LD BLDTL20141217AAM
 Facility ID: 191416
Station data: User record
   Record ID: 1777
     Country: U.S.

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K16BQ	D16+	LD	CP	BRAINERD, MN	BLANK0000047348	165.2 km
No	K16BQ	N16+	TX	LIC	BRAINERD, MN	BLTT19880608IT	165.2
No	K16JN-D	D16	LD	CP	SAINT CLOUD, MN	BLANK0000013921	127.1
Yes	KPXM-TV	D16	DT	CP	ST. CLOUD, MN	BLANK0000034401	57.0
Yes	KPXM-TV	D16	DT	APP	ST. CLOUD, MN	BLANK0000041060	41.5
No	K16CG-D	D16	LD	LIC	ST. JAMES, MN	BLDTL20120625AAQ	142.6
No	K16HY-D	D16	LD	LIC	ST. PAUL, MN	BLDTL20100521ACA	0.3
No	W16DL-D	D16	LD	CP	ELK MOUND, WI	BNPDTL20100513AEU	123.9
No	K17MH-D	D17	LD	CP	CEDAR FALLS, IA	BNPDTL20101013ABB	256.1
No	KWQC-TV	D17	DT	CP	DAVENPORT, IA	BLANK0000033932	442.9
No	KDAO-CD	D17-	DC	CP	MARSHALLTOWN, IA	BLANK0000034815	323.8
No	K17BV-D	D17	LD	LIC	REDWOOD FALLS, MN	BLDTT20120604AAY	141.9
No	K17MA-D	D17	LD	CP	RUSHMORE, MN	BNPDTL20100510AHY	248.0
No	K17FE	N17+	TX	LIC	WADENA, MN	BLTT20021223AAH	210.4
No	K17FA-D	D17	LD	LIC	WILLMAR, MN	BLDTT20100122ABO	140.8
No	K17LT-D	D17	LD	CP	FARGO, ND	BNPDTL20100902AAZ	339.3
No	KYNE-TV	D17	DT	LIC	OMAHA, NE	BLANK0000019249	464.5
No	KYNE-TV	D17	DT	APP	OMAHA, NE	BLANK0000035901	464.5
No	KDSD-TV	D17	DT	LIC	ABERDEEN, SD	BLEDT20110816AAM	349.6
No	K40FZ-D	D17+	LD	APP	BROOKINGS, SD	BLANK0000052874	285.4
Yes	WEAU	D17	DT	CP	EAU CLAIRE, WI	BLANK0000034098	185.3
No	WGBD-LD	D17	LD	APP	GREEN BAY, WI	BLANK0000048529	421.7
No	KYIN	D18	DT	LIC	MASON CITY, IA	BLEDT20090612AHJ	172.4
No	KQDS-TV	D18	DT	CP	DULUTH, MN	BLANK0000027535	221.1
No	K18GF-D	D18	LD	LIC	LITTLE FALLS, MN	BLDTL20120523ADD	139.3
Yes	KHVM-LD	D18	LD	APP	MINNEAPOLIS, MN	BLANK0000052068	12.9
Yes	KJNK-LD	D18	LD	APP	MINNEAPOLIS, MN	BLANK0000051592	0.3
No	K18IR-D	D18	LD	LIC	OLIVIA, MN	BLDTT20120213ABO	128.5
No	WBOO-LP	D18	LD	CP	ELK MOUND, WI	BDISDTT20091223AMF	141.9
No	KKTW-LD	N19-	TX	LIC	Buffalo, MN	BLTTL19870921IE	96.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D17
       Mask: Full Service
   Latitude: 44 58 24.90 N (NAD83)
  Longitude: 93 16 13.80 W
Height AMSL: 442.4 m
       HAAT: 0.0 m
   Peak ERP: 15.0 kW
    Antenna: SWR-SWLP16OI (ID 114023) 270.0 deg
Elev Pattrn: Generic
  Elec Tilt: 1.00

49.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	7.14 kW	183.6 m	47.4 km
45.0	6.44	162.5	45.6
90.0	7.56	171.9	47.0
135.0	6.34	188.2	47.0
180.0	7.14	186.6	47.5
225.0	12.2	172.5	49.4
270.0	15.0	164.3	49.9
315.0	12.2	168.5	49.2

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m   Computed HAAT: 175 m

Distance to Canadian border: 365.3 km

Distance to Mexican border: 1833.7 km

Conditions at FCC monitoring station: Grand Island NE
Bearing: 224.8 degrees Distance: 615.3 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 245.4 degrees Distance: 1114.2 km

No land mobile station failures found

Proposal is not within the Offshore Radio Service protected area

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 BLANK0000034098 CP scenario 2
**IX: 1.97% interference caused

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WEAU	D17	DT	CP	EAU CLAIRE, WI	BLANK0000034098	
Undesireds:	WUMN-LD	D17	LD	LIC	MINNEAPOLIS, MN	WUMN-LD BLDTL20141217A	185.3 km
	WJFW-TV	D16	DT	LIC	RHINELANDER, WI	BLCDT20070222AOP	177.0
	KWQC-TV	D17	DT	BL	DAVENPORT, IA	DTVBL6885	375.5
	KDAO-CD	D17-	DC	CP	MARSHALLTOWN, IA	BLANK0000034815	328.8
	WBME-CD	D17	DC	CP	MILWAUKEE, WI	BLANK0000034630	297.8
	WMSN-TV	D18	DT	CP	MADISON, WI	BLANK0000034381	212.2

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
50028.0	1,046,760	49014.6	1,014,629	48480.9	1,011,957	47725.1	992,064	1.56	1.97

Undesired		Total IX		Unique IX, before		Unique IX, after	
WUMN-LD D17 LD LIC	755.8	19,893		755.8	19,893		
WJFW-TV D16 DT LIC	460.6	1,083	460.6	1,083	460.6	1,083	
KWQC-TV D17 DT BL	69.0	1,589	67.0	1,581	67.0	1,581	
WBME-CD D17 DC CP	6.1	8	4.0	0	4.0	0	

Interference to BLANK0000034098 CP scenario 3
**IX: 1.97% interference caused

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WEAU	D17	DT	CP	EAU CLAIRE, WI	BLANK0000034098	
Undesireds:	WUMN-LD	D17	LD	LIC	MINNEAPOLIS, MN	WUMN-LD BLDTL20141217A	185.3 km
	WJFW-TV	D16	DT	LIC	RHINELANDER, WI	BLCDT20070222AOP	177.0
	KWQC-TV	D17	DT	CP	DAVENPORT, IA	BLANK0000033932	348.7
	KDAO-CD	D17-	DC	CP	MARSHALLTOWN, IA	BLANK0000034815	328.8
	WBME-CD	D17	DC	BL	MILWAUKEE, WI	DTVBL71422	297.8
	WMSN-TV	D18	DT	CP	MADISON, WI	BLANK0000034381	212.2

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
50028.0	1,046,760	49014.6	1,014,629	48380.6	1,008,518	47624.8	988,625	1.56	1.97

Undesired		Total IX		Unique IX, before		Unique IX, after	
WUMN-LD D17 LD LIC	755.8	19,893		755.8	19,893		
WJFW-TV D16 DT LIC	460.6	1,083	460.6	1,083	460.6	1,083	
KWQC-TV D17 DT CP	172.4	5,028	170.4	5,028	170.4	5,028	
WBME-CD D17 DC BL	3.0	0	1.0	0	1.0	0	

Interference to BLANK0000034098 CP scenario 4
**IX: 1.97% interference caused

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WEAU	D17	DT	CP	EAU CLAIRE, WI	BLANK0000034098	
Undesireds:	WUMN-LD	D17	LD	LIC	MINNEAPOLIS, MN	WUMN-LD BLDTL20141217A	185.3 km

WJFW-TV	D16	DT	LIC	RHINELANDER, WI	BLCDT20070222AOP	177.0
KWQC-TV	D17	DT	BL	DAVENPORT, IA	DTVBL6885	375.5
KDAO-CD	D17-	DC	CP	MARSHALLTOWN, IA	BLANK0000034815	328.8
WBME-CD	D17	DC	BL	MILWAUKEE, WI	DTVBL71422	297.8
WMSN-TV	D18	DT	CP	MADISON, WI	BLANK0000034381	212.2

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
50028.0	1,046,760	49014.6	1,014,629	48483.0	1,011,957	47727.1	992,064	1.56	1.97

Undesired		Total IX		Unique IX, before		Unique IX, after	
WUMN-LD D17 LD LIC	755.8	19,893				755.8	19,893
WJFW-TV D16 DT LIC	460.6	1,083	460.6	1,083		460.6	1,083
KWQC-TV D17 DT BL	69.0	1,589	68.0	1,589		68.0	1,589
WBME-CD D17 DC BL	3.0	0	2.0	0		2.0	0
